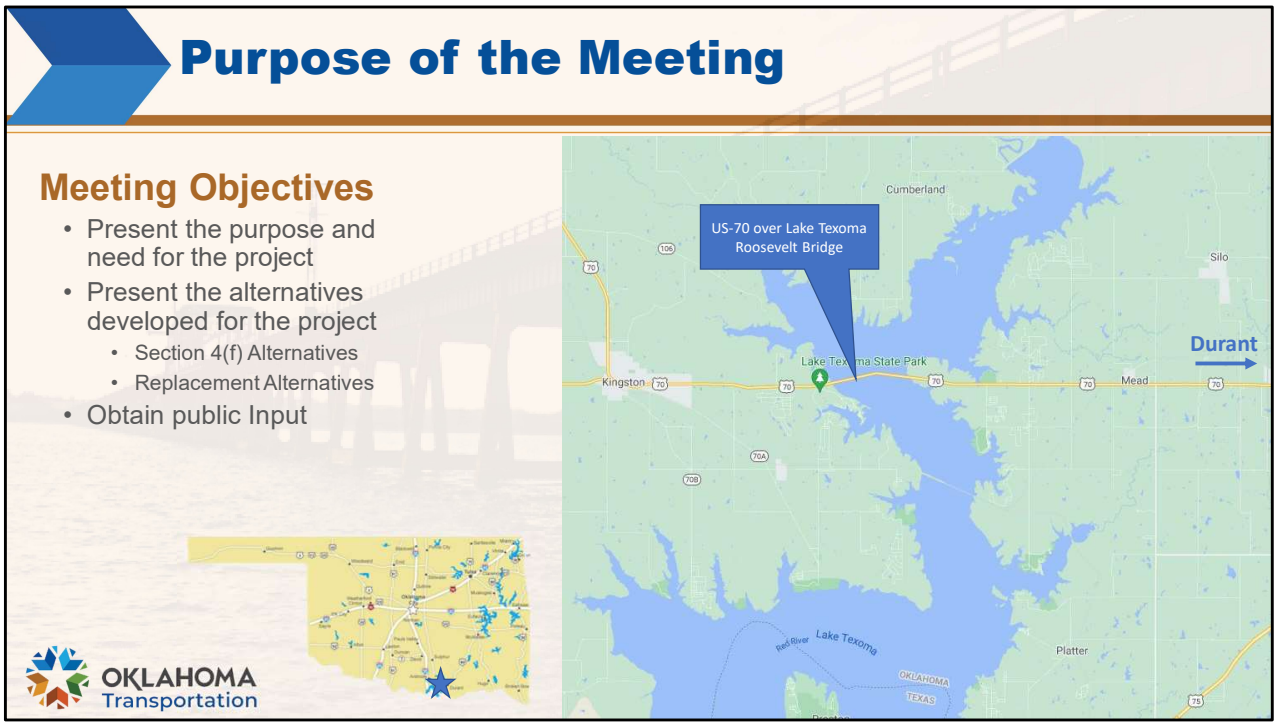
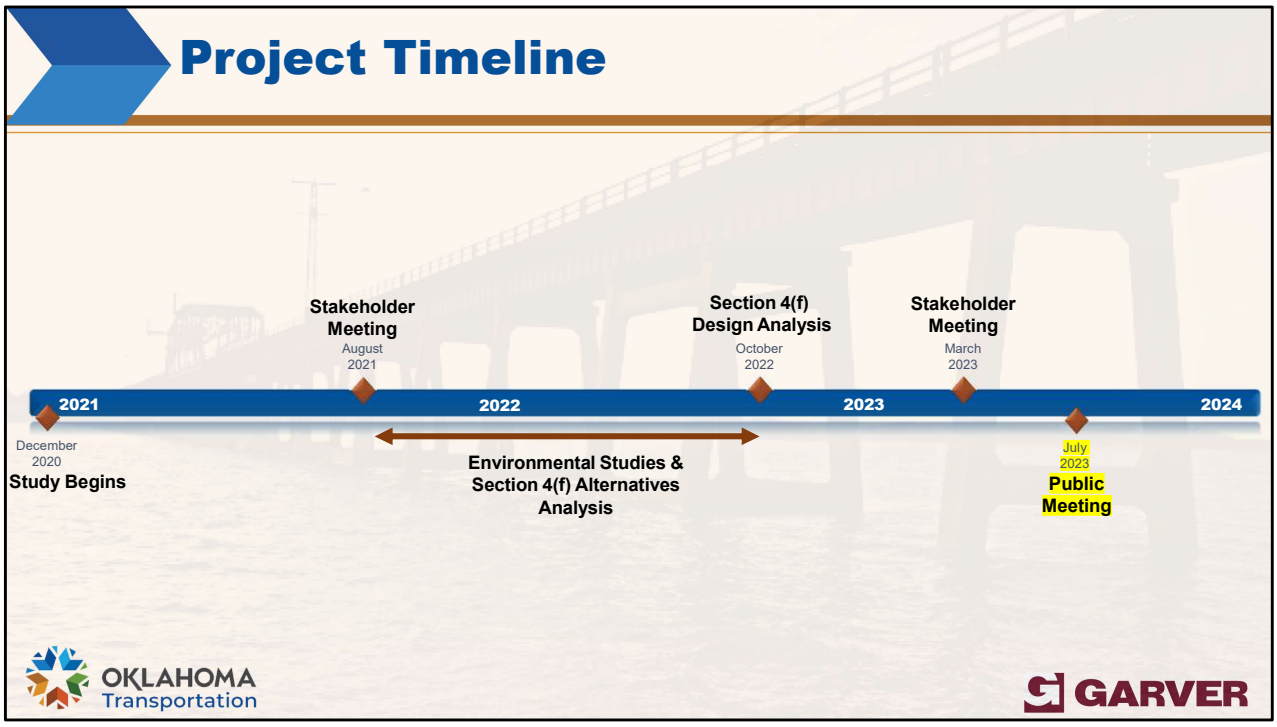
Welcome to the public meeting for the US-70 over Lake Texoma project in Bryan and Marshall Counties, Oklahoma, also known as the Roosevelt Bridge.



The purpose of the public meeting is to present the purpose and need for the project, present the alternatives developed for the project, and obtain public input. The location of the project is in south-central Oklahoma, as shown on the state map at the bottom left of the screen. A more zoomed-in location map is shown on the right-hand side of the screen.



This slide shows the project activities that have been completed to date. This public meeting is highlighted in yellow. Completed activities include environmental studies and Section 4(f) alternatives analysis. We will discuss what Section 4(f) is in more detail later in this presentation. You can see notes from the stakeholder meetings on the **Study Background** page on this website. We will discuss next steps at the end of this presentation.

Presentation Outline

- Purpose and need for the project
- Existing conditions
- Section 4(f) Alternatives
- Replacement Alternatives
- Submit your comments
- Next steps

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We are going to discuss the need for the project and existing conditions, and then discuss the alternatives developed for this project. These include Section 4(f) Alternatives, which are alternatives that preserve the existing bridge, and Replacement Alternatives, which would replace the existing bridge. Finally, we will discuss how to submit a comment and next steps for the project.

Need for the Project

Bridge Deficiencies

- Bridge is currently at risk for becoming structurally deficient
  - Deck
  - Floor Beams
  - Railing
- Deck is narrow (24') with no shoulders
- Truss vertical clearance is substandard

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The need for the project is related to three primary issues. First is the condition of the existing bridge. The bridge is considered at risk for becoming structurally deficient, meaning it does not meet today's standards. Deficiencies exist in the bridge deck, the steel beams underneath the deck, and the bridge railing. Structurally deficient does not mean the bridge is unsafe, just that corrective action is needed to bring the bridge up to today's standards.

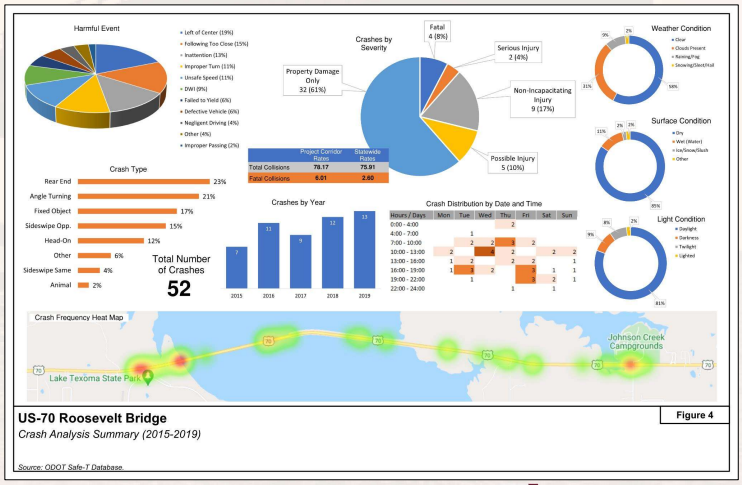
In addition to the structural condition, the bridge is narrow with no shoulders. There is no room for a vehicle to correct if it starts to leave the roadway, or to pull off in the event of an emergency. This also hinders emergency response, making it difficult for emergency vehicles to reach an incident. Collisions on the bridge can be severe and can cause significant traffic back ups.

Also, the height under the metal truss span is 14 feet 9 inches, which is less than today's standard of 16 feet 9 inches.

Need for the Project

Collision History

- 52 Total Collisions; 4 Fatalities
- Statewide Rate Comparison
  - 3% higher total crash (25% higher just on bridge)
  - 130% higher fatal crash rate
- Collision Hot Spots:
  - State Park Road Intersection
  - West approach to Bridge
  - Truss/East Approach to Bridge
  - Willow Springs Drive Intersection



US-70 Roosevelt Bridge Figure 4

Crash Analysis Summary (2015-2019)

Source: ODOT Safe-T Database

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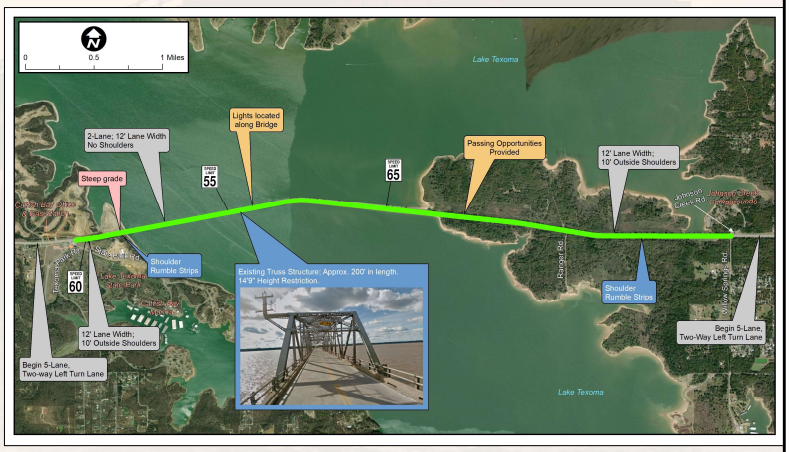
The second need is related to safety. The previous slide discussed how the bridge's condition contributes to the safety issues. A look at documented collisions between 2015 and 2019 shows 52 total collisions, with 4 fatalities. While the total crash rate in the project area is similar to the statewide rate, the fatality rate is much higher. The heat map with the colored spots at the bottom of the graphic shows where collisions tend to cluster. The red dots are the highest collision concentrations.

Need for the Project

Roadway Deficiencies

- No shoulders, median, or rumble strips on the bridge
- Steep hill west of the bridge
- Limited intersection sight distance and minimal lighting
- Lane drops to east and west
- Access management needs at gas station
- Preliminary traffic analysis indicates the need for four lanes



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There are also roadway deficiencies, including the previously mentioned lack of shoulders. A steep hill on the western end of the bridge limits sight distance at nearby intersections. US-70 is a five-lane roadway east and west of the project extents, so the area including the bridge has less capacity than the adjacent sections of highway. We have studied the traffic volumes, which show there is a need for four lanes to accommodate the anticipated traffic growth.

Need for the Project

Bridge Level of Service (LOS) Results

Traffic Volumes

- 2021: 8,500 vehicles per day
- 2050: 12,200 vehicles per day (background)
- 2050: 27,000 vehicles per day (w/ Development)

Existing

- Two 12'-wide Lanes
- No shoulders
- No median

Proposed Bridge

- Four 12'-wide lanes
- 10'-wide shoulders

Scenario	Level of Service Results	
	No-Build	Build
2021	C	A
2050 (background growth only)	D	A
2050 (with Development)	E	B

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This slide shows the results of the traffic analysis we performed. We describe traffic in terms of level of service on a scale from A to F – like a report card. Based on the amount of traffic we anticipate in the future, which could be up to 27,000 vehicles per day, Level of Service is anticipated to fall to Level of Service D or E without improvements. Providing four lanes across the bridge would improve Level of Service to A or B.

Need for the Project

Bridge Level of Service (LOS) Results

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Purpose and Need for the Project

Purpose: *Provide a safe crossing along US-70 over Lake Texoma that accommodates current and future traffic demand.*

Need: *Bridge is at-risk of becoming structurally deficient and has a sub-standard roadway width and low clearance at the truss span. The collision history indicates a high fatality rate. Finally, there is not adequate capacity to accommodate future traffic.*

Specific Corrections:

- Provide a structure that meets today's vehicle loads and design standards
- Provide a safe bridge railing
- Correct the low clearance at the truss span
- Provide adequate roadway & shoulder width for the anticipated traffic demand

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The purpose of the project is to provide a safe crossing along US-70 over Lake Texoma that accommodates current and future traffic demand. The need for the project is related to the bridge condition, the need to improve safety, and the need to provide additional traffic capacity. Specific corrections need to be made to improve the structural condition of the bridge, improve safety, and provide four lanes and adequate shoulders.

Existing Conditions

Moving on to existing conditions in the project area, there are a number of different landowners and managing agencies with an interest in the area. On the west side of the lake, that includes the Chickasaw Nation, Lake Texoma State Park, and PointeVista which is a large multi-use development currently under construction. Lake Texoma itself and the land on the east side is owned and managed by the US Army Corps of Engineers, including the Johnson Creek campground shown in yellow.

Existing Conditions

Environmental Constraints

- No significant historic resources besides the Roosevelt Bridge.
- Potential underwater archaeological sites may need to be investigated further.
- Biological resources – measures will be included to minimize impacts to:
  - American Burying Beetle
  - Whooping Crane
  - Bald Eagle
  - Migratory Birds
- Lake Texoma, wetlands and streams subject to Section 404 permitting
- US Army Corps land subject to Section 4(f) protections

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ODOT has completed environmental studies of the area. No historic properties besides the bridge itself were identified, although there are some archaeological sites mapped within the lake that may require additional investigation. There is habitat for protected species, and measures to minimize impacts to those species will be incorporated into the project. Any impacts to Lake Texoma and other wetlands and streams will be subject to Section 404 permitting through the Army Corps, and the Army Corps lands are also subject to Section 4(f) protection.

Existing Roosevelt Bridge

History and Significance of Existing Bridge

- History
  - Warren through-truss with polygonal top chord
  - Construction completed in 1945 by USACE
  - Previously determined eligible for listing in the National Register of Historic Places
  - Property boundary– 87 spans and original pipe railing
- Significance/Integrity
  - Only known vehicular example of its type in Oklahoma
  - Associated with water impoundment and creation of dams and lakes across Oklahoma, and creation of Lake Texoma specifically

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The Roosevelt Bridge was built in 1945 by the US Army Corps of Engineers and has been determined eligible for inclusion in the National Register of Historic Places, meaning it is a significant historic property. The historic property includes all 87 spans of the bridge. The Roosevelt Bridge is significant because it is the only remaining example of its type in Oklahoma, and because it is associated with an important historic event – namely the creation of Lake Texoma.

Historic Significance and Section 4(f)

- Section 4(f) requires study of alternatives that do not affect the historic integrity of the bridge
- Section 4(f) Alternatives
  - Alternative 1 – Do Nothing
  - Alternative 2 – Rehabilitation (with and without widening)
  - Alternative 3 – One-Way Pair (with and without widening)
  - Alternative 4 – Pedestrian/Bicycle Bridge
  - Alternative 5 – Monument
- Replacement considered only if these are not prudent and feasible
- ODOT made bridge available for adoption in August 2022

Because the bridge is a significant historic property, it is subject to evaluation under Section 4(f) of the Department of Transportation Act. Section 4(f) requires ODOT to look at alternatives that preserve the historic integrity of the bridge. Those alternatives are listed here as Alternatives 1-5, which we will discuss in more detail. Section 4(f) states that replacing the bridge will only be considered if the Federal Highway Administration determines that the Section 4(f) Alternatives are not prudent or feasible. We're going to discuss the factors that go into that determination towards the end of the presentation. One other aspect of the Section 4(f) process is to make the bridge available for adoption, which ODOT did back in August of 2022. You can find more information about Section 4(f) on the **What is Section 4(f)?** page of the website.

Section 4(f) Alternatives Analysis

Alternative 1 – Do Nothing		No Use
Alternative 2A – Rehab (No Widen)		
Alternative 3A – One-Way Pair (No Widen)		
Alternative 4 – Pedestrian/Bicycle Only		
Alternative 5 – Monument Only		
Alternative 2B – Rehab (Widen)		Use
Alternative 3B – One-Way Pair (Widen)		

Alternative 6 – Replacement

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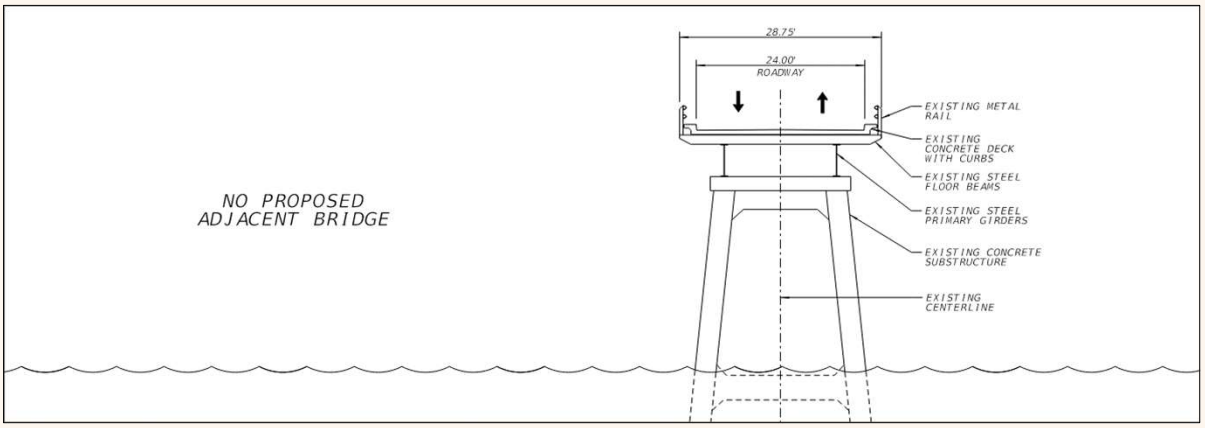
Continuing with the alternative analysis that was discussed, here are the Section 4(f) alternatives (including variations) that were studied. There are 5 primary alternatives with 2 sub-options. The blue alternatives are what we anticipate to be “No use” alternatives, which means the impacts are not likely severe enough to impair the historical integrity of the bridge. The orange alternatives are what we anticipate to be “Use” alternatives which means the impacts are likely severe enough to impair the historical integrity. The arrows represent vehicles. Looking through the alternatives, you can see how the arrows change through the different alternatives. More detail on these alternatives can be found on the **Section 4(f) Alternatives** page of this website. Next, we have one slide per alternative, so let’s take a closer look at these.

Section 4(f) Alternative Summaries

Alternative 1 – Do Nothing



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Meets Purpose & Need: NO

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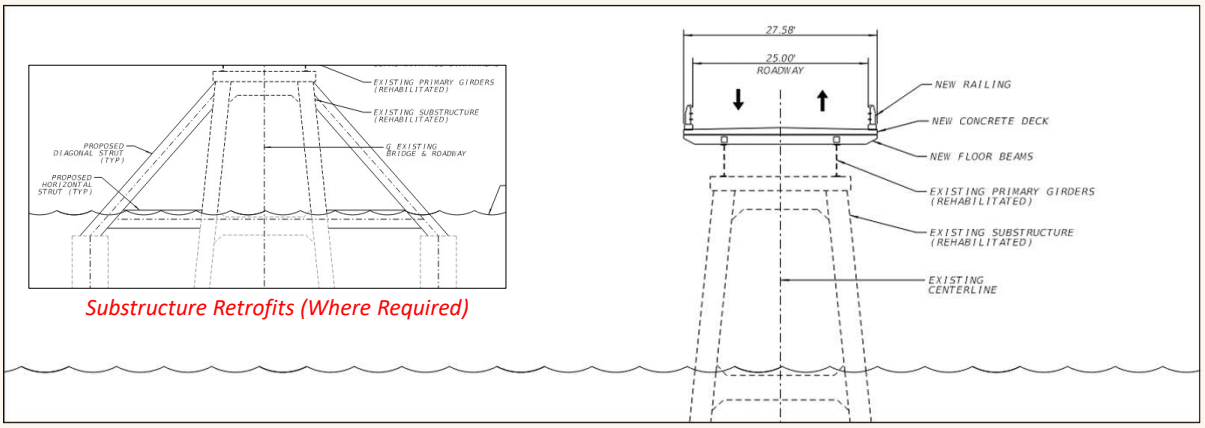
If you recall, the Roosevelt Bridge is nearly 5,000 feet long with 87 spans. Eighty-six of the spans are what we call approach spans and 1 span is the 250-foot thru truss. For the sake of simplicity, we are showing a cross section of the approach span, which is essentially if you were to cut the bridge in half and were standing in that same spot looking toward the bridge, this is what you would see.

Alternative 1, the Do Nothing Alternative, requires no rehabilitation, only preventative maintenance. However, it does not meet the purpose and need for the project, specifically to address the bridge deficiencies.

Section 4(f) Alternative Summaries

Alternative 2A – Rehab (No Widen)



Substructure Retrofits (Where Required)

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Meets Purpose & Need: NO

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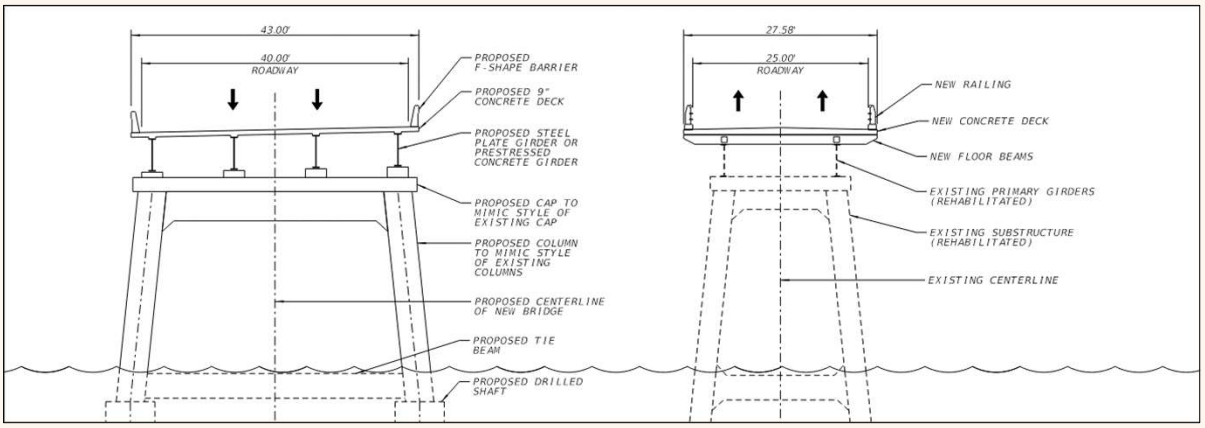
Next is Alternative 2A. This alternative would rehabilitate the existing bridge to meet today's standards. The "A" signifies that the existing bridge will not be widened.

To note a few components - the deck is the riding surface. Floor beams are the components that support the deck. And the primary girders support the floor beams and carry the loadings back to the piers. For this alternative, many of the components will need to be extensively rehabilitated or completely replaced. In addition, the substructure, which are the concrete piers that support the bridge, will also have to be strengthened in many strategic locations.

This alternative would require a costly detour during construction. It does not meet the purpose and need for the project. However, minimal roadway and causeway work would be needed.

Section 4(f) Alternative Summaries

Alternative 3A – One-Way Pair (No Widen)



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Meets Purpose & Need: PARTIALLY

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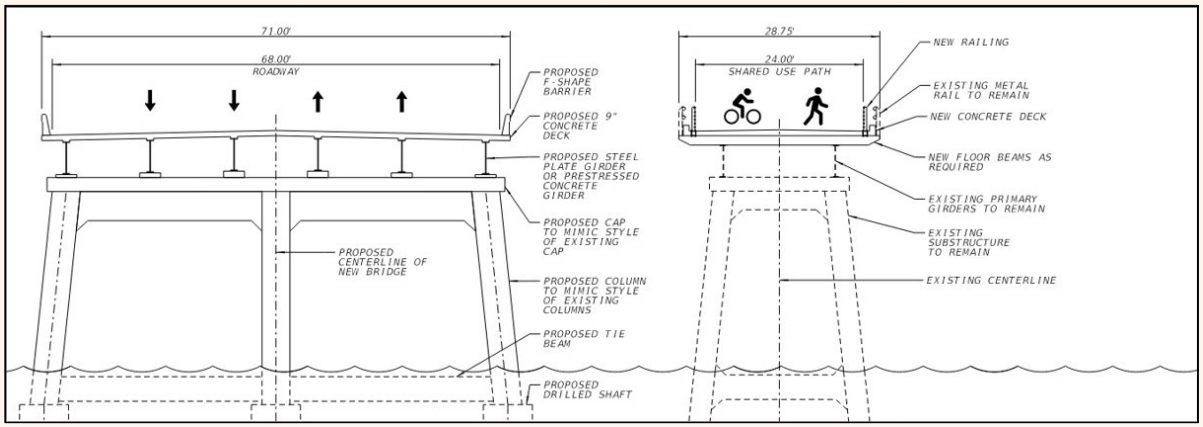
For Alternative 3A, a second bridge would be added as shown. The new bridge would carry one direction of traffic. The existing bridge would carry the other direction. The repairs of the existing bridge for this alternative would be similar to Alternative 2A on the previous slide. The new bridge would look similar above the water to the existing bridge.

This alternative would partially meet the purpose and need for the project, because while it would provide for four lanes of traffic, the existing bridge would not accommodate shoulders. By constructing a second bridge, no detour during construction would be needed. However, substantial roadway and causeway work would be needed.

Section 4(f) Alternative Summaries

Alternative 4 – Pedestrian/Bicycle Only



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Meets Purpose & Need: YES

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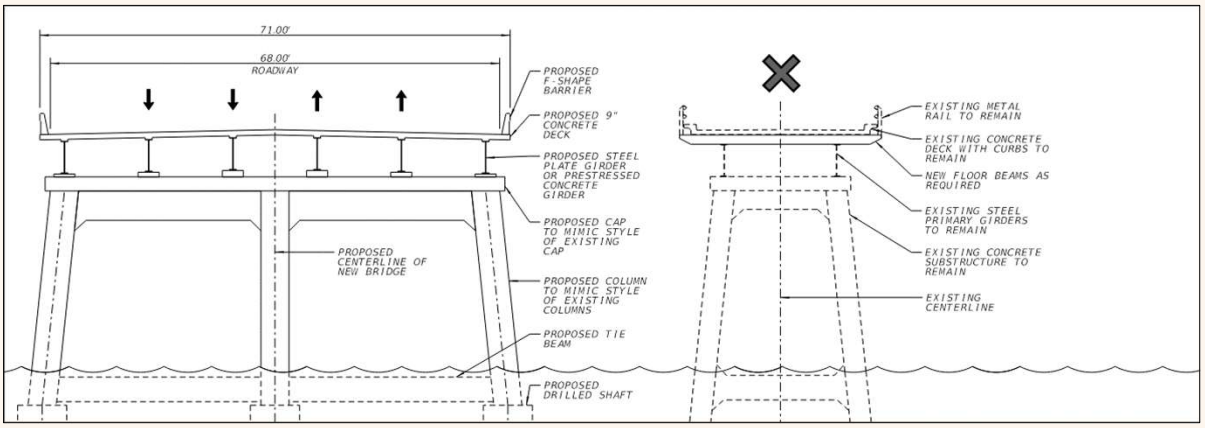
Under Alternative 4, the existing bridge would become a bicycle and pedestrian facility and a new four-lane bridge would be constructed on a new alignment. Although vehicles would be removed from the existing bridge, it would still require extensive rehabilitation to support pedestrians and cyclists. The majority of a bridge's weight is the weight of the bridge itself, and pedestrian loadings can be as much or more than vehicles.

This alternative would meet the purpose and need for the project while providing a dedicated pedestrian structure. No detour would be needed, but substantial roadway and causeway work would be needed.

Section 4(f) Alternative Summaries

Alternative 5 – Monument Only



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Meets Purpose & Need: YES

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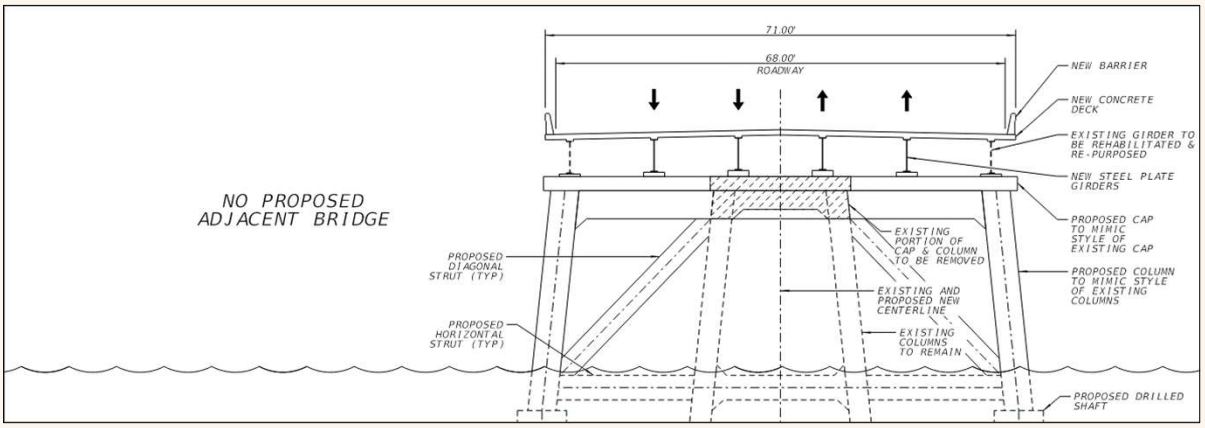
Our last "no use" alternative is Alternative 5. For this alternative, the existing bridge would be closed to vehicles and pedestrians and would remain in place as a historic monument. Even in this scenario, some repairs would be required.

This alternative would meet the purpose and need for the project. No detour would be needed for construction or rehabilitation. Substantial roadway and causeway work would be needed; however, it would be less than Alternative 4.

Section 4(f) Alternative Summaries

Alternative 2B – Rehab (Widen)



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Meets Purpose & Need: YES

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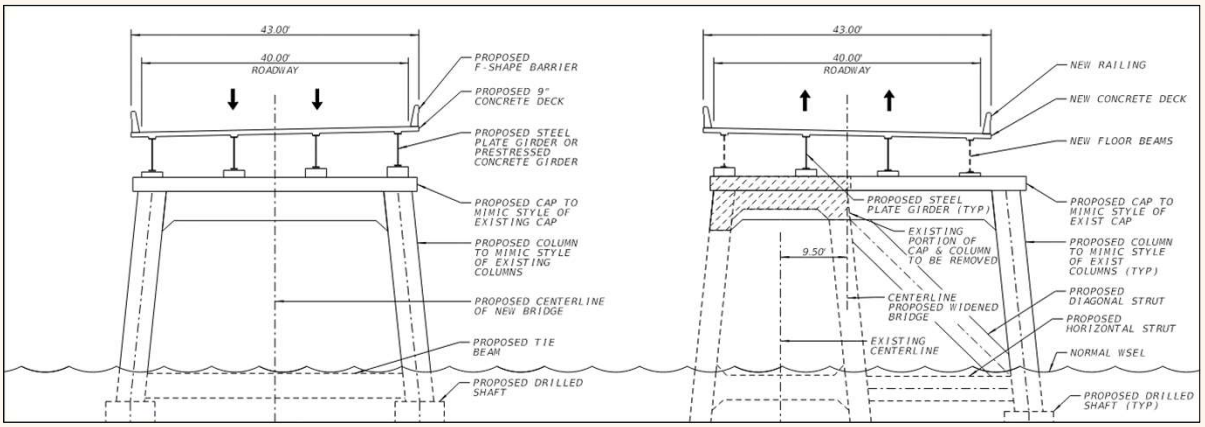
Now we will move into our "use" alternatives. Alternative 2B is similar to Alternative 2A, which involves rehabilitation of the existing bridge to carry vehicular traffic. However, Alternative 2B would also widen the existing bridge to carry four lanes of traffic with shoulders. That is what the "B" signifies. This widening would require major reconstruction and modification of the existing structure, including the truss span. These modifications are expected to significantly impact the historic integrity of the bridge, which is why it is considered a "use" alternative.

Alternative 2B would meet the purpose and need for the project but would require a detour during construction.

Section 4(f) Alternative Summaries

Alternative 3B – One-Way Pair (Widen)



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Meets Purpose & Need: YES

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Finally, our last alternative, Alternative 3B, is similar to Alternative 3A, which would construct a new bridge on a new alignment to carry a single direction of traffic. However, for Alternative 3B, the existing bridge would be widened to have standard lane and shoulder widths.

Similar to Alternative 2B, this alternative would require major reconstruction and modification of the existing structure (Including the truss) and would likely adversely affect the historic integrity of the bridge. It would meet the purpose and need for the project and no detour would be required.

Section 4f Alternative Summaries

Alternative Analysis					Existing Bridge Rehabilitations Required								
Alternatives		Existing Bridge Section Width	Total Traffic Lanes Accommodated	No Use or Use	Existing Superstructure					Existing Substructure			
					Bridge Rail	Concrete Deck	Steel Floor Beams	Steel Primary Girders	Steel Truss	Concrete Caps	Concrete Columns	Concrete Piers	Concrete Abutments
ALT 1	Do Nothing	No Change 2 Lanes No Shoulders	2	No Use	No Retrofit	No Retrofit	No Retrofit	No Retrofit	No Retrofit	No Retrofit	No Retrofit	No Retrofit	No Retrofit
ALT 2 (Option A)	Rehab (No Widen)	No Change 2 Lanes No Shoulders	2	No Use	Replace	Replace	Replace	Major Retrofit	Minor Retrofit	No Retrofit	Moderate Retrofit	No Retrofit	No Retrofit
ALT 3 (Option A)	One-Way Pair Rehab (No Widen)	No Change 2 Lanes No Shoulders	4	No Use	Replace	Replace	Replace	Major Retrofit	Minor Retrofit	No Retrofit	Moderate Retrofit	No Retrofit	No Retrofit
ALT 4	Pedestrian/ Bicycle	No Change (Shared Use Path)	4	No Use	Replace	Replace	Minor Retrofit	No Retrofit	No Retrofit	No Retrofit	Moderate Retrofit	No Retrofit	No Retrofit
ALT 5	Monument	No Change (Not Used)	4	No Use	No Retrofit	No Retrofit	Minor Retrofit	No Retrofit	No Retrofit	No Retrofit	Moderate Retrofit	No Retrofit	No Retrofit
ALT 2 (Option B)	Rehab (Widen)	Widened 4 Lanes With Shoulders	4	Use	Replace	Replace	Remove	Minor Retrofit	Major Retrofit	Replace	Major Retrofit	No Retrofit	Minor Retrofit
ALT 3 (Option B)	One-Way Pair Rehab (Widen)	Widened 2 Lanes With Shoulders	4	Use	Replace	Replace	Remove	Minor Retrofit	Major Retrofit	Replace	Major Retrofit	No Retrofit	Minor Retrofit

Overall Level of Retrofit

- None
- Major
- Moderate
- Minor
- Major (Significant Change)

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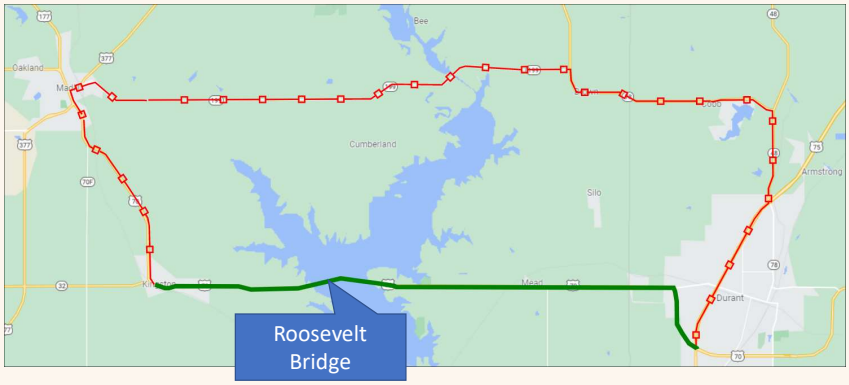
At this point, we've gone through the seven Section 4(f) alternatives. This table summarizes what components of the bridge would require a retrofit as well as the overall level of retrofit. The color coding goes from green meaning no retrofit, to minor retrofit, major retrofit, replace and then removal. You can see the top 5 alternatives have varying colors with generally more green. The do-nothing and monument have the most green. The "use" alternatives, the two at the bottom, have major (or significant) changes. For the alternatives that require the existing bridge to have retrofits while supporting vehicles, a detour would be required.

Section 4(f) Alternatives Cost Estimate

Detour



Normal Route
Required Detour

Detour Length: 39.1 Miles

Required for Alternatives 2A & 2B (rehabilitate existing bridge in place)

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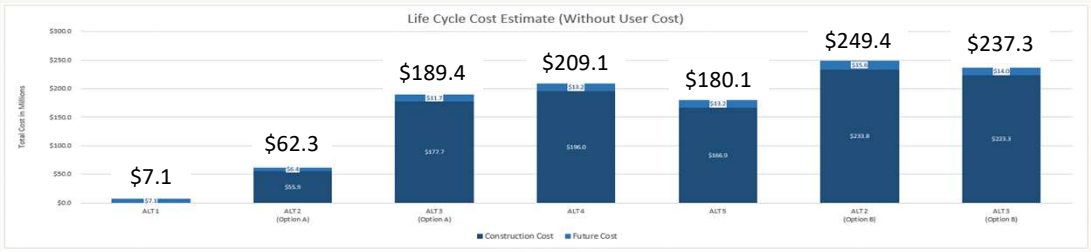
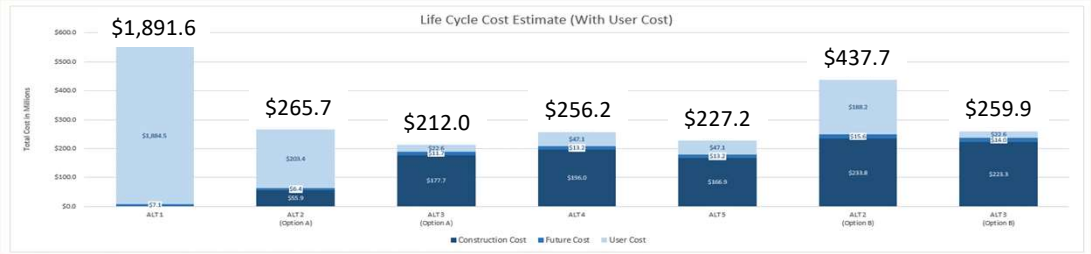
Here is the detour map. The green line indicates the normal route that vehicles would take. The red patterned line indicates the detour route. The detour route is relatively long at nearly 40 miles. This detour would be required for alternatives that rehabilitate the existing bridge in-place without the use of a second bridge, that is, Alternatives 2A and 2B.

Section 4(f) Alternatives Cost Estimate





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We have taken all the information and developed cost estimates. The cost estimates are broken down into three parts – construction, future maintenance costs, and user costs which are impacts to vehicles required to use the detour that normally would use the bridge route. The top table is without user costs and the bottom includes user costs. All these costs are in millions and the amounts change per alternative.

A few things to note

1. The user cost on the do-nothing is significant because without improvement, the bridge would eventually be load posted or closed requiring the permanent use of the detour route.
2. The “use” alternatives 2B and 3B have the two highest cost of construction (on the far right).
3. The three alternatives in the middle that meet or “partially meet” the purpose and need for the project have similar construction costs.

Next, we will look at other evaluation factors.

Section 4(f) Summary

Alternative Analysis					Meets Project Purpose & Need	Operational & Safety Risk	Social, Economic, & Environmental Risk	Community Disruption	Construction & Future Cost **	Life Cycle Cost ***
Alternatives		Existing Bridge Section Width	Total Traffic Lanes *	No Use or Use						
ALT 1	Do Nothing	No Change 2 Lanes No Shoulders	2	No Use	No	High	High	High	Low	Very High
ALT 2 (Opt. A)	Rehab (No Widen)	No Change 2 Lanes No Shoulders	2	No Use	No	High	High	High	Low	High
ALT 3 (Opt. A)	One-Way Pair Rehab (No Widen)	No Change 2 Lanes No Shoulders	4	No Use	Partially	Moderate	Low	Low	High	Moderate
ALT 4	Pedestrian/ Bicycle	No Change (Shared Use Path)	4	No Use	Yes	Low	Low	Low	High	Moderate
ALT 5	Monument	No Change (Not Used)	4	No Use	Yes	Low	Low	Low	Moderate	Moderate
ALT 2 (Opt. B)	Rehab (Widen)	Widened 4 Lanes With Shoulders	4	Use	Yes	Low	High	High	High	High
ALT 3 (Opt. B)	One-Way Pair Rehab (Widen)	Widened 2 Lanes With Shoulders	4	Use	Yes	Low	Moderate	Low	High	Moderate

** "Total Lanes" accounts for an additional vehicular bridge where applicable.*

*** Accounts for rehabs, proposed construction, future inspections and future maintenance*

**** Accounts for Construction & Future Cost as well as User Costs*

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This matrix presents an overall assessment and comparison of the seven Section 4(f) alternatives presented. The matrix includes evaluation of the project purpose and need, the preservation of the historic integrity of the existing bridge, and other criteria used in the assessment of whether an alternative is prudent and feasible. Prudent, in the context of Section 4(f), means that an alternative can be built as a matter of sound engineering judgment. Feasible means the alternative does not cause other severe problems that outweigh the importance of protecting the Section 4(f) resource. This includes cost, which was presented on the previous slide, but also operational and safety issues, social, economic and environmental effects, and community disruption.

Alternatives 1 and 2, as we have discussed, do not meet the purpose and need for the project as they do not provide the needed traffic capacity and would eventually cause major economic and community disruption due to congestion, or eventual load posting or closure of the bridge.

Alternatives 3, 4, and 5 all provide four lanes of traffic, so all at least partially meet the purpose and need for the project. Alternatives 3, 4 and 5 would all have some environmental impacts to Lake Texoma, US Army Corps lands, wetlands, and potentially to an underwater archaeological site. However, environmental, economic, and community impacts remain low with these alternatives. Alternatives 2B and 3B are anticipated to have

an adverse effect on the historic bridge, which means they do not preserve the bridge's historic integrity. Alternative 2B has higher impacts due to the detour required during construction. Alternative 3B has somewhat higher environmental impacts due to the larger footprint of disturbance.

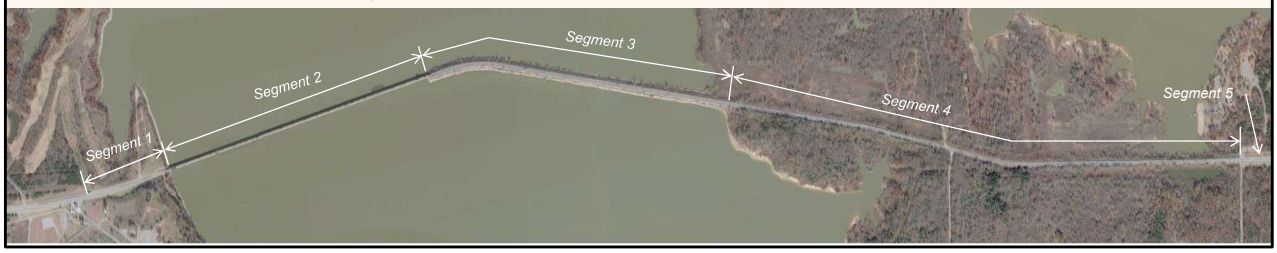
As we have discussed, the Section 4(f) process requires examination of preservation alternatives, but in the event none of these are found to be prudent and feasible, ODOT is also looking at alternatives to replace the existing bridge.

Segment Overview

Segment Definition

Segment	Extents	Length	Existing Roadway Section
Segment 1	State Park Rd. to Roosevelt Br.	1,585 ft	Four 12' lanes; 8' Shoulders; 16' TWLT
Segment 2	Existing Roosevelt Bridge	5,000 ft	Two 12' Lanes; No Shoulders
Segment 3	Lake Causeway	5,220 ft	Two 12' Lanes; 8' Shoulders
Segment 4	Land Causeway	9,545 ft	Two 12' Lanes; 8' Shoulders
Segment 5	Segment 4 to Willow Springs Rd.	1,941 ft	Four 12' lanes; 8' Shoulders; 16' TWLT

TWLT: Two-Way Left Turn Lane



Thus far in the presentation, most of the discussion has been centered around the preservation of the existing bridge. Next, we will discuss Alternative 6, which involves bridge replacement. Building a new bridge involves other important considerations on the project. This map shows how we have divided the project into different segments. Each segment has different characteristics to note.

Starting at segment 1 on the western side of Lake Texoma, this includes a 5-lane roadway section that necks down to 2-lanes at the bridge.
Segment 2 is along the bridge.
Segment 3 is the lake causeway, which is an approximately 50-foot-tall by 250-foot-wide causeway.
Segment 4 is what we call the land causeway which is still an elevated roadway, however, the causeway is much smaller.
Finally, Segment 5 is on the eastern end of the project.

Before we get into the studied alternatives, let's discuss some of our design methodology.

Replacement Alternatives Design Methodology

Roadway

Design Speed – 65 MPH

Typical Section

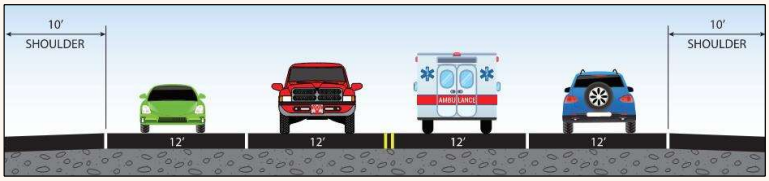
- Four 12'-wide lanes
- 10'-wide shoulders
- 14'-wide center turn lane at both ends

Causeway Typical Section

- Four 12'-wide lanes
- 10'-wide shoulders
- 5' guardrail widening on both sides

Clear Zone – 30'

8% Max Superelevation – Less than 6%



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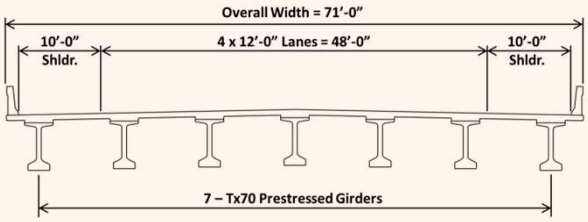
For the roadway, our design would have a design speed of 65 miles per hour. The roadway typical section would consist of four 12-foot-wide lanes, 10-foot-wide shoulders, and turn lanes where necessary with standard roadway features.

Replacement Alternatives Design Methodology

Bridge

- Bridge Replacement Report
- Different Structure Lengths
- Typical Section
  - 4-12' Lanes, 2-10' Shoulders, 2-barriers (1.5')
- Superstructure (12 types studied)
  - Span Optimization (spacing, sizing, lengths)
- Substructure
  - Drilled Shaft Supported Piers (DS Varying Sizes)
- Retaining Walls



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The bridge would carry 4 lanes of traffic with 10-foot-wide shoulders and a crash-tested standard vehicular concrete barrier, as shown on the edges of the cross section shown in the slide.

Replacement Alternatives Design Methodology

Hydraulic and Compensatory Storage

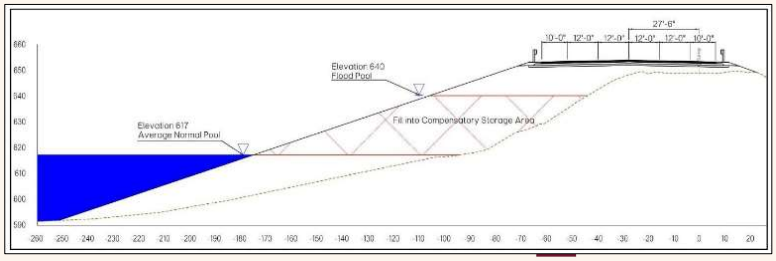
Profile Grade Raise

- Finished grade of causeway will be at 650’ to prevent submersion during the 100-year storm event
- Bridge will be raised 5’ to 655’ to increase resiliency to flooding events and withstand the 200-year storm without overtopping
- All alternatives produced a no-rise scenario in the 100-yr event

2015 Storm reached an elevation of 645.5 feet

Compensatory Storage

- Loss of flood storage due to fill material into the flood pool
- Normal pool = 617’
- Flood pool elevation is 640’
- Mitigation considered



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The next design methodology slide is on hydraulics and compensatory storage. The image on the top right shows the relatively recent storm event that occurred in 2015. The lake water elevation reached above the bottom of the bridge. For the new design, the top of the roadway would be about 4 feet above this lake water elevation (along the causeway). Then, the roadway goes up another 5 feet at the bridge to allow the bridge to be above even more extreme events.

Compensatory storage refers to replacing a loss of flood storage due to fill material in the lake. We did evaluate and discuss methods to reduce this fill.

Replacement Alternatives Design Methodology

Development

Pointe Vista

- Preliminary Review for Traffic
- Not Reflected in Survey
- Large Traffic Generator
- Update Meetings Ongoing

Bridge Pointe

- Impact with North Alternatives
- Entrance Close to Existing Highway
- Utility Requests

Pointe Vista Master Planned Community

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Our last design methodology slide is on the Pointe Vista Development. PointeVista is a 2,700-acre mixed use development, and the home of the Chickasaw Pointe Golf Course and Catfish Bay Marina and will include 2,100 residences. The development consists of eleven phases and is currently under construction. This development is anticipated to substantially increase traffic in the area.

Proposed Replacement Alternatives

Alternative Overview

- Alignment Alternatives
  - Total Alternatives = 23 (125+ potentials)
  - Total Alignments = 19
  - Alignment Sub-Options = 4
- Offsets
  - Partial = 27'-6" from Existing Alignment
  - Full = 57'-0" from Existing Alignment
  - New = New Southern Alignment
- Selection Potential
  - Based on Feasibility, Cost, and Impacts
  - Low-Potential = 7
  - Medium-Potential = 5
  - High-Potential = 11
- Only High-Potential Alignments Studied

Alignment Alternative	Offset				Selection Potential
	Direction	Bridge	Lake Causeway	Land Causeway	
6-1	North	Full	Full	Full	Low
6-2A	North	Full	Partial	Partial	High
6-2B	North	Full	Partial	Partial	High
6-3	North	Full	Partial	Existing	High
6-4	North	Full	Existing	Existing	Medium
6-5	North	Partial	Full	Full	Low
6-6A	North	Partial	Partial	Partial	High
6-6B	North	Partial	Partial	Partial	High
6-7	North	Partial	Partial	Existing	Medium
6-8	North	Partial	Existing	Existing	Low
6-9	South	Partial	Full	Full	Low
6-10	South	Partial	Partial	Partial	Medium
6-11	South	Partial	Partial	Existing	Medium
6-12	South	Partial	Existing	Existing	Low
6-13	South	Full	Full	Full	Low
6-14	South	Full	Partial	Partial	High
6-15	South	Full	Partial	Existing	High
6-16	South	Full	Existing	Existing	Medium
6-17A	South	New	New	Existing	High
6-17B	South	New	New	Existing	High
6-18A	South	New	New	Partial	High
6-18B	South	New	New	Partial	High
6-19	South	New	New	Full	Low

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This slide summarizes the Replacement Alternatives. We looked at 23 total alternatives initially. The table to the right shows the list of alternatives. The offset is the general location of the new roadway in relation to the existing roadway. This changes depending on if you are at the bridge, the lake causeway and the land causeway. A partial offset is approximately 27 feet, and a full offset is approximately 57 feet. The new offset is a new southern alignment which will be discussed on the next slide.

For this study, we looked at a large number of different alignments with variations where the new bridge and roadway would be built in relation to the existing. After studying these alternatives, we ended up with 11 alternatives that seemed to be the most likely solutions. Rather than go through each alternative in detail, we will discuss the 11 alternatives in a summary matrix.

Replacement Alternatives

JP No. 33873(04), US-70 over Lake Texoma (Roosevelt Bridge), Project Summary Matrix

	Alternative Name and Description	Sub-Option	Construction Cost (1)	Right-of-Way Cost (2)	Utility Relocation Cost (3)	Total Bridge Length (ft)	Total Retaining Wall Cost	Flood Storage Impacts (cy)	Wetlands (ac)	Streams (ac)	Johnson Creek PUA (ac)	Texoma State Park (ac)	USACE Property (ac)	Tribal Land (ac)	Hazardous Materials Site	Archeological Site 34BR11
6-2	North Offset Bridge - 57' Lake Causeway - 27.5' Land Causeway - 27.5'	A	$153.1 M	$1.73 M	$ -	4,942	-	590,165	0.77	0.11	3.8	2.83	62.96	0	N	Y
		B	$200.48 M	$.7 M		6,146	$58.81 M	-811	0.67	0.06	2.2	2.83	20.65	0	N	Y
6-3	North Offset Bridge - 57' Lake Causeway - 27.5' Land Causeway - On Existing Alignment	-	$152.92 M	$1.67 M	$ -	4,942	-	595,520	0.81	0.09	3.74	2.65	64.3	0	N	Y
6-6	North Offset with Phased Bridge Construction Bridge - 27.5' Lake Causeway - 27.5' Land Causeway - 27.5'	A	$154.44 M	$1.69 M	$ -	4,942	-	595,169	0.49	0.07	3.18	3.39	51.8	0	Y	Y
		B	$160.96 M	$1.08 M		4,942	$35.31 M	279,876	0.49	0.07	3.18	3.39	32.61	0	Y	Y
6-14	South Offset Bridge - 57' Lake Causeway - 27.5' Land Causeway - 27.5'	-	$158.75 M	$2.7 M	$ -	4,942	-	590,165	1.32	0.09	3.74	6.19	64.76	1.16	Y	Y
6-15	South Offset Bridge - 57' Lake Causeway - 27.5' Land Causeway - On Existing Alignment	-	$158.45 M	$2.68 M	$ -	4,942	-	595,520	0.89	0.08	3.73	6.19	64.79	1.16	Y	Y
6-17	New Southern Alignment Land Causeway - On Existing Alignment	A	$433.3 M	$3.45 M	$ -	5,422	-	1,101,425	1.09	0.09	3.73	6.56	105.16	1.43	Y	N
		B	$159.6 M	$1.99 M		10,625		226,348	1.09	0.09	3.73	6.56	58.97	1.43	Y	N
6-18	New Southern Alignment Land Causeway - 27.5' Offset	A	$432.35 M	$3.46 M	$ -	5,422	-	1,120,416	1.49	0.08	3.74	6.34	106.15	1.43	Y	N
		B	$157.72 M	$2.01 M		10,625		226,348	1.49	0.08	3.74	6.34	60.06	1.43	Y	N

Here is the summary matrix. The image on the top shows the general differences in location. The yellow line is generally where a full or partial offset to the north would go. The pink line shows generally where a full or partial offset to the south would go. And the green line is generally where the new southern alignment would go.

The table shows seven alternatives with A & B sub-options. With the sub-options, we ended up with 11 alternatives.

Alternative 6-2 is a full north bridge offset and a partial lake and land offset and generally follows the yellow line.

- “A” means no retaining walls, and flood storage impacts as shown in the middle which are relatively large.
- “B” is the same alignment but uses retaining walls, removes the existing causeway, and extends the bridge to generally get no flood storage impacts. This alternative was designed to have no flood storage impacts.

Alternative 6-3 is similar to 6-2A but is “on-alignment” for the land causeway. So very similar numbers.

Alternative 6-6 uses a partial offset of the bridge. This means less causeway cost, but a

phased construction of the bridge. Phased construction means they would build half of the proposed bridge at a time.

- A, again, is no retaining walls.
- B, similar to before, uses retaining walls but not necessarily to minimize fill in the lake. For this option, the walls were only used in the lake causeway to better understand how much construction savings the retaining walls might offer.

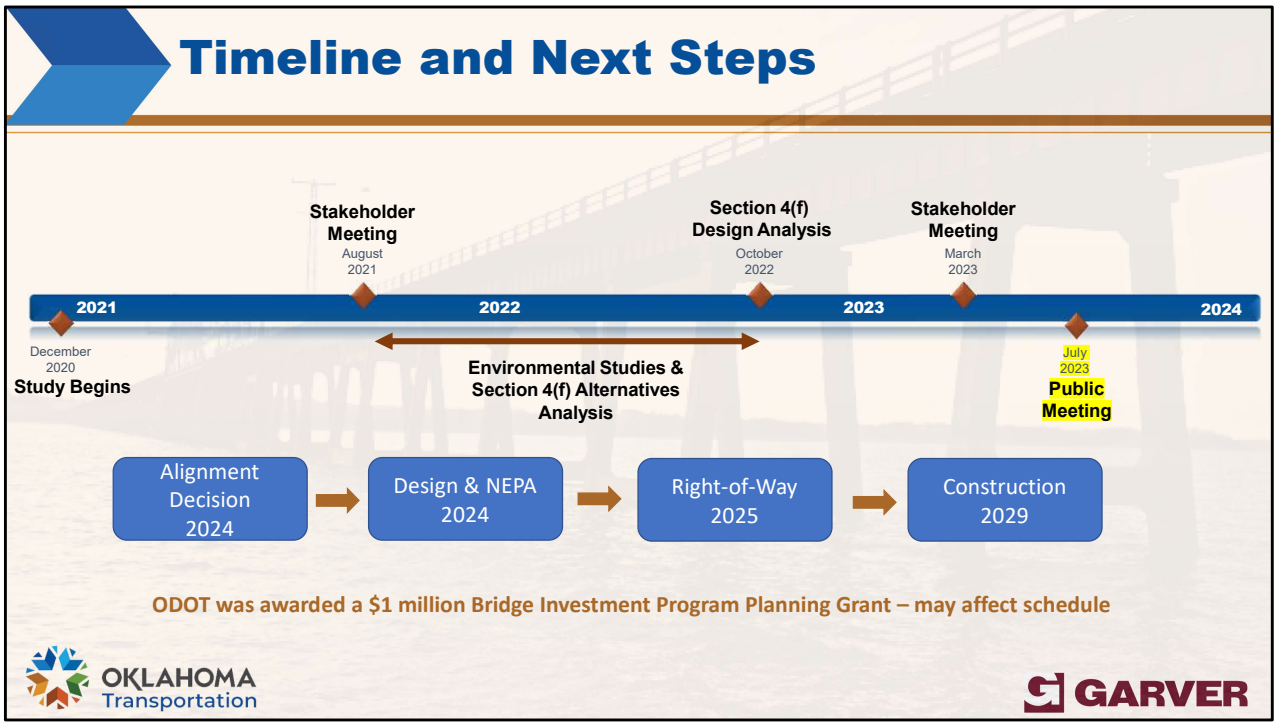
Alternative 6-14 and 6-15 are similar to 6-2A and 6-3 but instead of offsetting to the north, they are offset to the south. So these would follow the pink line.

Alternative 6-17 would follow the green line.

- For this alternative, the “A” means that the green line would be accomplished with both a new causeway and a new bridge. This is very expensive alternative because constructing a new causeway in the lake is expensive.
- The “B” alternative uses a new bridge across the entire green line. Note the flood storage impacts is the least amount of any alternative except for the 6-2B.

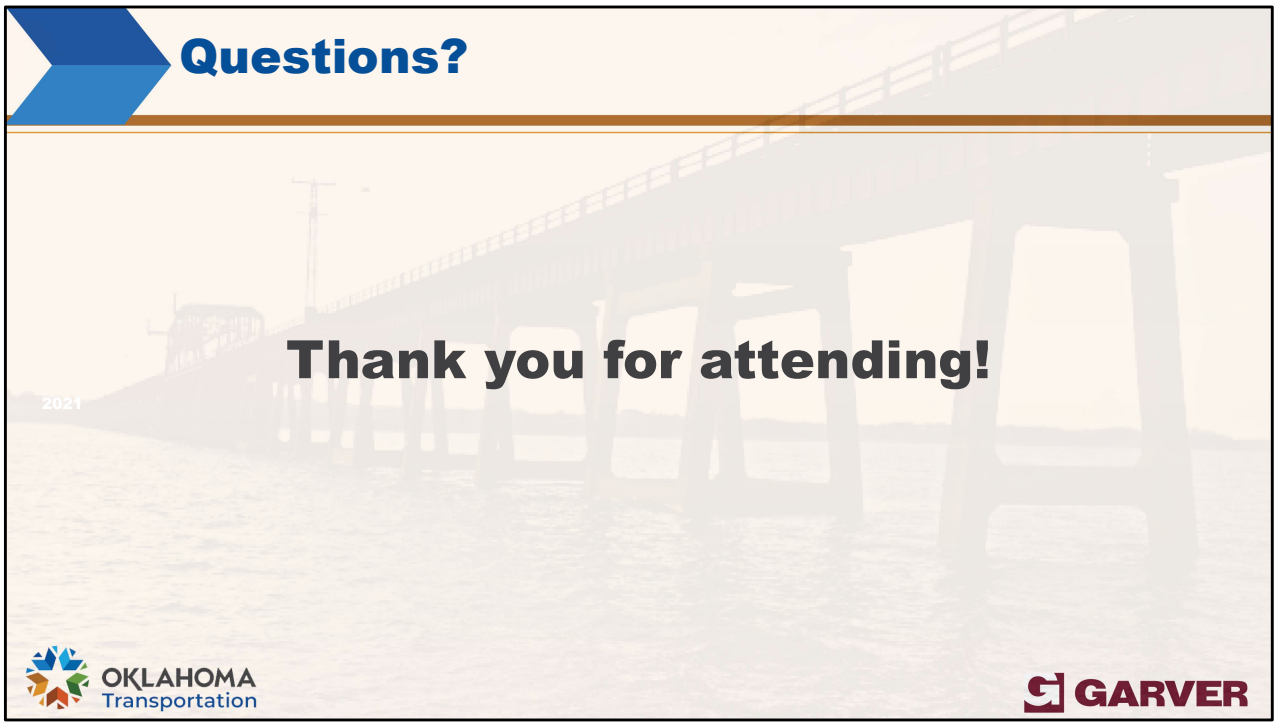
Alternative 6-18 is similar to 6-17 but utilizes a partial offset of the lake causeway instead of the existing alignment.

Next, we will discuss the timeline and project next steps.



This slide shows the same timeline presented earlier in the presentation. After the public meeting, ODOT will compile, summarize, and respond to public comments. The Federal Highway Administration will use the information presented here along with the public's input to determine if any of the Section 4(f) alternatives are prudent and feasible. If so, then one of those alternatives will be selected and moved forward into design. If not, ODOT will select one of the replacement alternatives to move forward. This decision should be made in early 2024. Conceptual design and Federal Highway Administration approval of the project will be obtained through a NEPA, or National Environmental Policy Act document anticipated in late 2024. Right-of-Way acquisition is anticipated to begin in 2025. Currently, construction is programmed in 2029, but the project is not fully funded. Construction is dependent on ODOT identifying additional funding for the project. ODOT was recently awarded a $1 million federal grant for additional study and design. Execution of this grant may affect the project schedule.

ODOT would like to hear your comments on the project. You can submit your comments on this website, or you can email or mail your comments. Please submit your comments by August 10 so that ODOT can provide feedback and select a preferred alternative for the project.



This concludes the presentation. Thank you.