

PUBLIC MEETING
for
PROPOSED SH 48 IMPROVEMENTS
BRIDGE REPLACEMENT OVER THE
CIMARRON RIVER



Division 8 Information

- Division 8 Engineer Randle White
- Total Road Miles 1,664
- Total Interstate Miles 40
- Total Bridges 1,118
- Counties Serviced 11



Purpose of Meeting

- To inform the public of ODOT's plan to replace the existing deteriorated bridge that carries SH 48 over the Cimarron River
- Receive comments from the public in regard to the proposed bridge replacement project that can be included in the project development process.



Purpose of Project

- Improve the safety and functionality of the SH 48 crossing over the Cimarron River



Existing Conditions

- 2 lane highway built in 1961
 - US Army Corps of Engineers project to relocate SH 48
 - Currently has 12' lanes and 8' shoulders with 6' from lane to guardrail
 - Substandard guardrail
- 1961 Project included existing bridge
 - 28' clear roadway
 - (curb to curb)
 - 6 Spans, 743' long
 - Structurally Deficient
 - Inadequate to carry legal loads, whether caused by obsolete design standards, structural deterioration or waterway inadequacy.



Existing Conditions



Traffic Volume

- Current Traffic Volume (2014)
 - 2,500 vehicles per day
 - 10% Trucks
- Future Traffic Volume (2034)
 - 3,600 vehicles per day
 - 10% trucks

Project Scope

- Replace the existing 52 year-old bridge that carries SH 48 over the Cimarron River with a new bridge, 16' wider than the existing bridge.
 - Bridge will consist of two 12' wide driving lanes and two 10' wide shoulders, 44' clear roadway
 - Bridge length similar to the existing bridge length
- Widen the approach roadway north and south of the bridge to consist of two 12' wide driving lanes and two 10' wide shoulders.
 - Begin approximately 2,000' south of the bridge and end approximately 550' north of the bridge
 - Guardrail on the approach roadways will be replaced.

Project Constraints

- Keystone Wildlife Management Area
- US Army Corps of Engineers property adjacent to both sides of the roadway
- Flood Storage area for Keystone Lake & Wetlands on both sides of project
 - Wetland Mitigation likely required
 - Flood Pool Mitigation possible
- Potential Threatened & Endangered Species Habitat Impact
 - American Burying Beetle (ABB)
 - Whooping Crane
 - Piping Plover
 - Red Knot



Bridge Replacement Preferred Option

- Reconstruct on Existing Alignment with road closed
 - Provide alternate route during construction
 - Results in the least construction cost and impacts to environmentally sensitive areas but with higher impact to road users.
 - Available Detour Route on SH 51 and US 64 is 26 miles long from south end of bridge to north end of bridge.
 - Anticipate a project duration of approximately 180 calendar days
- Utilize a performance incentive to speed construction
- Scheduled letting is February 2017



Bridge Replacement Options Considered

- Reconstruct on Existing Alignment & maintain traffic during construction
 - Requires construction of a temporary bridge to maintain traffic
 - Increased construction costs and impacts to the environmentally sensitive areas adjacent to the highway

Bridge Replacement Options Considered

- Reconstruction on slight offset alignment
 - Shift centerline of roadway and bridge approximately 26'
 - Increased impacts to the environmentally sensitive areas adjacent to the highway
 - Additional costs incurred:
 - Foundation construction to support phased bridge
 - Right of way acquisition and rock excavation at the north end of the structure to tie existing roadway to the offset bridge
 - Embankment construction at the south end of the bridge to tie existing roadway to the offset bridge
 - Mitigation required due to environmental impacts



Bridge Replacement Options Considered

- Accelerated Bridge Construction
 - Build bridge beams and deck parallel to the existing bridge, then slide into place
 - Increased impacts to the environmentally sensitive areas adjacent to the highway to access site & construct bridge in initial location
 - A challenging site for this bridge construction methodology
 - Additional costs incurred:
 - Foundation & pier construction to support the new bridge superstructure in initial location
 - Construction costs of moving the new bridge superstructure into final location
 - Construction of new permanent bridge foundation & piers under the existing bridge while in use
 - Mitigation required due to environmental impacts

Next Steps

- Receive comments from the public
- Proceed with preliminary design
- Right-of-way acquisition & utility relocation scheduled for 2015
- Finalize the design
- Construction in 2017
 - \$7,663,800 in the ODOT 8 Year Construction Plan for right-of-way acquisition, utility relocation, and construction



Comments

- Preferred road closure timeframe?
- Please provide comments
 - now in open forum
 - in writing on the forms provided
 - by email to:
 - environment@odot.org
 - comments due by January 15, 2015

Questions

Thank you for your
attendance tonight

