

OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 42.3
SD

Health Index :
60.4

NBI No.: 13688

Structure No.: 6602 0368EX

Local ID:-1

IDENTIFICATION	INSPECTION																														
<p>Description: 100'-140'-210'-160'-100'-100' HI. TRUSS SPANS</p> <p>1. State: Oklahoma 2. SHD District: Division 8 3. County Code: ROGERS 4. Place Code: Unknown Admin. Area: Unknown</p> <p>5. Inventory Route (Route On Structure) : 1 - 3 - 1 - 00066 - 0 6. Feature Intersected: BIRD CREEK & RD. UNDER</p> <p>7. Facility Carried: S.H. 66 NB S.H. 66 NB 9. Location: 3.3 MI N JCT I-44 11. Mile Post: 3.679 mi 13. LRS Inv. Route./ Subroute.: 6602HP0000 01 16. Latitude: 36 12 29.18 17. Longitude: 095 43 29.72 98. Border Br. Code: Jkknown (P) % Resp. : 0 99. Border Br. #: Unknown</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Type</th> <th>Insp Req.</th> <th>Insp Done</th> <th>Freq.</th> <th>Insp. Date:</th> <th>Next Insp.:</th> </tr> </thead> <tbody> <tr> <td>NBI:</td> <td></td> <td>Y</td> <td>24</td> <td>11/21/2013</td> <td>11/21/2015</td> </tr> <tr> <td>FC Freq.:</td> <td>Y</td> <td>Y</td> <td>24</td> <td>11/21/2013</td> <td>11/21/2015</td> </tr> <tr> <td>UW Freq.:</td> <td>N</td> <td>N</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>OS Freq.:</td> <td>Y</td> <td>N</td> <td>24</td> <td>11/8/2011</td> <td>11/21/2014</td> </tr> </tbody> </table>	Type	Insp Req.	Insp Done	Freq.	Insp. Date:	Next Insp.:	NBI:		Y	24	11/21/2013	11/21/2015	FC Freq.:	Y	Y	24	11/21/2013	11/21/2015	UW Freq.:	N	N	NA	NA	NA	OS Freq.:	Y	N	24	11/8/2011	11/21/2014
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<p style="text-align: center;"><u>STRUCTURE TYPE AND MATERIALS</u></p> <p>43. Main Span Material and Design Type Steel Truss-Thru</p> <p>44. Approach Span Material and Design Type Unknown (NBI) Unknown (P)</p> <p>45. No. of Spans Main Unit: 6 46. No. of Approach Spans: 0</p> <p>107. Deck Type: 1 Concrete-Cast-in-Place 108A. Wearing Surface: 1 Monolithic Concrete 108B. Membrane: 8 Unknown 108C. Deck Protection: 8 Unknown</p>	<p style="text-align: center;"><u>CLASSIFICATION</u></p> <p>12. Base Hwy Network : On Base Network 20. Toll Facility: 3 On free road 21. Custodian: 01State Highway Agency 22. Owner: 01State Highway Agency 26. Functional Class: 14 Urban Other Princ 37. Historical Sig.: 5 Not eligible for NRHP 100. Defense Highway: 0 Not a STRAHNET h 101. Parallel Structure: Right of bridge 102. Dir. of Traffic: 1 1-way traffic 103. Temp. Structure: Not Applicable (P) 104. Highway System: 0 Not on NHS 105. Fed. Land Hwy 0 N/A (NBI) 110. National Truck Network: 0 Not part of na 112. NBIS Length: Long Enough</p>																														
<p style="text-align: center;"><u>AGE AND SERVICE</u></p> <p>27. Year Built: 1956 106. Year Reconstructed: 1979 28A. Lanes on: 2 28B. Lanes Under: 2 19. Detour Length: 0.1 mi 29. ADT: 6750 30. Year of ADT: 2011 109. Truck ADT %: 7 42A. Type of Service on: 1 Highway 42B. Type of Service under: 6 Highway-waterway</p>	<p style="text-align: center;"><u>CONDITION</u></p> <p>58. Deck: 5 Fair 59. Super.: 4 Poor 60. Sub.: 6 Satisfactory 62. Culvert: N N/A (NBI) 61. Channel/Channel Protection: 6 Bank Slumping Flowline Notes: Unable to taek FL measurements due to painting contract</p>																														
<p style="text-align: center;"><u>GEOMETRIC DATA</u></p> <p>10. Inv. Rte. Min. Vert. Clr.: 15.8 ft 32. Approach Roadway Width (W/ Shoulders): 37.1 ft Deck Area: 25,976.2 sq. ft 33. Median: 0 No median 34. Skew: 0 35. Structure Flared: 0 No flare 47. Inv. Rte. Total Horiz. Clr.: 29.8 ft 48. Length Maximum Span: 212.4 ft 49. Structure Length: 824.7 ft 50A. Curb/Sdwik Wdh L: 0.0 ft 50B. Curb/Sidewalk Width R: 0.0 ft 51. Width Curb to Curb: 29.8 ft 52. Width Out to Out: 31.5 ft 53. Minimum Vertical Clearance Over Bridge: 15.8 ft 54A/54B. Min. Vert. Underclearance : H Hwy beneath struct 16.6 ft</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;"><u>N/E</u></th> <th colspan="2" style="text-align: center;"><u>S/W</u></th> </tr> </thead> <tbody> <tr> <td><u>Meas.</u></td> <td>N1509 -1</td> <td>E1502</td> <td>S1509 -1</td> </tr> <tr> <td><u>Post.</u></td> <td>DO NOT U DO NOT U</td> <td>DO NOT U</td> <td>DO NOT U</td> </tr> </tbody> </table> <p>55A/55B. Minimum Lateral Underclearance R: H Hwy beneath struct 15.1 ft 56. Minimum Lateral Underclearance L: 327.8 ft</p>	<u>N/E</u>		<u>S/W</u>		<u>Meas.</u>	N1509 -1	E1502	S1509 -1	<u>Post.</u>	DO NOT U DO NOT U	DO NOT U	DO NOT U	<p style="text-align: center;"><u>LOAD RATING AND POSTING</u></p> <p>31. Design Load: 4 M 18 (H 20) 41. Posting status: A Open, no restriction 63. Op. Rating Method: 1 LF Load Factor-Ton Alt. Op. Rating Meth.: 1 LF Load Factor-To 64. Operating Rating (H / HS / 3-3): 26.3 38.5 69.9 66. Inventory Rating (H / HS / 3-3) : 15.8 23.1 42.0 65. Inv. Rating Method: 1 LF Load Factor-Ton Alt. Inv. Rating Meth.: 1 LF Load Factor-To 70. Posting: 5 At/Above Legal Loads Date Rated : 10/1/2006</p>																		
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<p style="text-align: center;"><u>PROPOSED IMPROVEMENTS</u></p> <p>94. Bridge Cost: \$3,226,224 75. Type of Work: 31 Repl-Load Capacit 95. Roadway Cost: \$4,500,000 76. Lgth. of Improvment: 825.1 ft 96. Total Cost: \$8,163,557 114. Future ADT: 10800 97. Year of Cost Est.: 2007 115. Year of Future ADT: 2031</p>	<p style="text-align: center;"><u>NAVIGATION DATA</u></p> <p>38. Navigation Control: Permit Not Required 39. Vertical Clearance: 0.0 ft 40. Horizontal Clearance: 0.0 ft 111. Pier Protection: Not Applicable (P) 116. Lift Bridge Vert. Clear.: 0.0 ft</p>																														
<p style="text-align: center;"><u>APPRAISAL</u></p> <p>36A. Bridge Rail: 0 Substandard 36C. Approach Rail: 1 Meets Standards 36B. Transition: 1 Meets Standards 36D. Approach Rail Ends: 1 Meets Standards 67. Str. Evaluation: 4 Minimum Tolerable 68. Deck Geometry: 4 Tolerable 69. Underclearance, Vertical and Horizontal: 9 Above Desirable 71. Waterway Adequacy: 7 Above Minimum 72. Approach Alignment: 8 Equal Desirable Crit 113. Scour Critical: 8 Stable Above Footing</p>	<p style="text-align: center;"><u>APPRAISAL</u></p> <p>243. Girder Spacing/Number : -1.0 / -1 244. Span Lengths : 100 160 -1 140 100 -1 210 100 245. Girder Depth : -1.000 246. Type of Overlay : - 246. Overlay Thickness : -1.0 246. Overlay Date : 1/1/1901 246. Overlay Depth Changed > 1"? No 247. Protective Systems : 1: - 2: - 3: - 4: - 5: - 248. No. of Field Splices w/ Corrosion : -1 249. Scour Crit. POA exists?: No 250. Culvert Headwall Dist.: -1.0 254. Thru Truss Type : Overhead 256. Chan. Profile Up/Down Stream?: - 257a. OkiePROS Auto. Truck Routing Yes 258. Plans w/ found. are in file at ODOT 259. Scour Eval. is in file at ODOT 263. Interchange at Intersection N 264. Interstate Milepoint -1.00</p>																														
<p>200c. Temperature: 35 200d. Weather: PARTLY CLOUDY 201. Structural Steel ASTM Desig.: -1 -1 202. Waterproof Membrane : -1 Date Installed : 1/1/1901 203. Type Exp. Dev. : Modular Pourable 204. Type of Handrail: Other Type of Handrail 205. Material and Quantity : -1.0 208. Type of Abutment : Cantilever Type of Foundation : Natural Foundation Matl. 209. Type of Pier / Found.: 2 Piers No Concrete Piling 210. Foundation Elev. -1.0 -1.0 -1.0 -1.0 211. Wear. Surf. Prot. System : None Date Installed : 1/1/1901 213. Utilities Attached : Communication -1 -1 -1 -1 -1 -1</p>	<p>214a. Posted Weight Limit: NR b. Posted Speed Limit : 45 c. Narrow/One Lane Bridge sign : N d. Vertical Clearance Sign: YES Advanced Warning Sign : NO Min. Measured Clearance : 156 Max. Measured Clearance : 1509 e. Navigation Lights : NO Working/Not Working : NO 215. Overpass : B - State Highway 221. Substructure Cond. (U/W) : - 222. Fill over RCB: -1 223. Appr. Slab/Rdwy Cond.: Satisfactory 224. Critical Feature Type: 1 225. Paint Type : - Overcoat : 0 226. Date Painted: -1 227. Paint Coloring: -1 233. Deck Forming: Conventional Forming 236. Deck Cleaning : -1 238. School Bus Rte: Current and Desired Route 240. Appr. Roadway Type: Asphalt/Bituminous</p>																														

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Inspection Date: 11/21/2013 Reported By: DPOORMAN
 Invoice No.: -1 Inspected With: -1
 Agency :



Structure / Inspection Notes

140-foot thru-truss (span 2), 210-foot thru-truss (span 3), 160-foot thru-truss (span 4) and three 100-foot pony trusses (Spans 1,5&6)
 O/S Inspection Items Include: Cracks at stringer copes; Section loss/welded repairs to stringer and floor beam ends; Section loss to lower chord truss gusset plates; Sweep in floor beams over piers; Bearing rotations.
 PX – Replace the heavily corroded nuts on the bridge rail; Replace the poured seal expansion joint and the expansion plate at the west barrier over pier 1; Seal the deck flexure joints over each floor beam; Repair failed patches around these deck flexure joints as needed; Clear the clogged deck drains; Replace the broken rivets at span 2 stringer 5 connection to floor beam 2, and span 6 stringer 6 connection to floor beam 1; Repair stringers and floor beams with loss as noted in the Steel Repair Details in the appendix of the FC report; Install stiff leg repairs at piers 2 and 3; Replace the broken hanger rods for the floor bracing; Reset the bearings for span 1 at pier 1 and span 3 at pier 3; Clear the clogged drain in the south approach.
 FX – Monitor for additional deterioration or growth: Cracks in the stringer web copes at the floor beams; Overcuts to the stringer web copes; Vertical crack in the floor beam 5 web between the floor beam top flange and the connection angle to the east truss in span 1; Corrosion holes and loss in the floor beam webs and floor system bracing; Bows in the gusset plates at span 1, U2 west truss, span 2, U2 east truss and L7 west truss; Section loss to bottom chord at the panel points; Section loss to the inboard gusset plates below the floor beams; L4L5 east truss, span 3 for crack development at bent flange; Section loss to the inboard flanges of truss members at the bridge railing connections; Pack rust at the middle connections on both trusses; Broken rivet head on the inboard top flange at LOU1 east truss in span 3; Spall in the north abutment under stringer 2; Spall in the south face of pier 1 and the crack in the east face of pier 1; Scour around the web wall at the east and west columns of pier 2; Bearing rotation for spans 5 and 6 at pier 5; Pack rust below the rocker at the west bearing for span 6 at pier 5 for growth.

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
12	4	Reinforced Concrete Deck	(SF)	24,750	22,275	90 %	2,475	10 %	0	0 %	0	0 %	0	0 %
113	4	Steel Stringer/Floorbeam	(LF)	2,402	0	0 %	2,402	100 %	0	0 %	0	0 %	0	0 %
120	1	Steel Truss (Pony)	(LF)	600	0	0 %	480	80 %	120	20 %	0	0 %	0	0 %
152	4	Steel Floor Beam	(LF)	1,466	0	0 %	1,319	90 %	147	10 %	0	0 %	0	0 %
162	4	Steel Gusset Plate	(EA)	384	0	0 %	334	87 %	50	13 %	0	0 %	0	0 %
205	4	Reinforced Conc Column or Pile Extension	(EA)	10	0	0 %	9	90 %	1	10 %	0	0 %	0	0 %
215	4	Reinforced Conc Abutment	(LF)	69	0	0 %	57	80 %	12	20 %	0	0 %	0	0 %
301	4	Pourable Joint Seal	(LF)	60	0	0 %	0	0 %	0	0 %	60	100 %	0	0 %
303	4	Assembly Joint With Seal	(LF)	30	0	0 %	0	0 %	0	0 %	30	100 %	0	0 %
311	4	Moveable Bearing (roller, sliding, etc.)	(EA)	12	0	0 %	10	83 %	2	17 %	0	0 %	0	0 %
313	4	Fixed Bearing	(EA)	12	0	0 %	12	100 %	0	0 %	0	0 %	0	0 %
321	4	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	2	0	0 %	2	100 %	0	0 %	0	0 %	0	0 %
330	4	Metal Bridge Railing	(LF)	1,650	0	0 %	1,617	98 %	33	2 %	0	0 %	0	0 %
356	4	Steel Cracking/Fatigue	(EA)	1	0	0 %	0	0 %	1	100 %	0	0 %	0	0 %
357	4	Pack Rust	(EA)	1	0	0 %	0	0 %	1	100 %	0	0 %	0	0 %
358	4	Concrete Cracking	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
359	1	Concrete Efflorescence	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
363	4	Steel Section Loss	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
364	1	Steel Out-Of-Plane Compression Members	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
515	4	Steel (Superstructure) Protective Coating	(EA)	1	0	0 %	0	0 %	1	100 %	0	0 %	0	0 %
659	4	Soffit of Concrete Decks and Slabs	(EA)	1	0	0 %	1	100 %	0	0 %	0	0 %	0	0 %
721	4	Steel Truss (Overhead)	(LF)	1,020	0	0 %	928	91 %	92	9 %	0	0 %	0	0 %
777	4	Steel Stringer End (5 Ft.)	(LF)	2,400	0	0 %	2,160	90 %	240	10 %	0	0 %	0	0 %
909	4	Pourable Fixed Joint Seal	(LF)	1,050	0	0 %	1,050	100 %	0	0 %	0	0 %	0	0 %
968	1	Erosion	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
969	1	Out-Of-Plane Distortion/Loading	(EA)	1	0	0 %	0	0 %	1	100 %	0	0 %	0	0 %

Additional Elements _____

Elem.	Element Notes (Include Size and Location of Deterioration)
12	PX: Unsealed deck flexure joints over floor beams; Numerous deck drains are clogged. Cracking, corrosion stains, spalling with exposed rebar and delaminations are typical along edges of the deck.
113	Freckling corrosion throughout.
120	FX: Isolated locations of section loss up to 1/8-inch throughout, typically at railing connections and lower chord bottom flanges. Typical pack rust up to 1/8-inch between gusset plates and truss members. Lower chord batten plates typically have corrosion holes.
152	PX: Sweeps noted in end floor beams (see 969 for comments); Corrosion and section loss on the floor beam web are common at the floor beam ends due to leakage through the flexure joints. FX: 2-inch vertical crack in floor beam 5 of span 1 at the east truss connection. Heavy section loss and rust holes exist at the bottom of a few floor beam web stiffeners. End floor beams over pier 5 have 3/8-inch gap between flanges at 55 degrees F.
162	FX: Up to 3/16-inch section loss in the shear plane of lower chord inboard gusset plates at isolated locations. Few lower chord gusset plates have bows and kinks. Inboard gusset plates in span 2 at the floor beams have isolated areas of moderate laminating corrosion with section loss up to 1/8-inch. Peeling paint is typical on the gusset plates.
205	FX: East column of pier 1 has 6-foot by 0.002-inch wide vertical crack. Superficial cracking throughout.
215	FX: Spall along the top edge of the bearing seat at the north abutment under stringer 2 and at the south abutment between stringers 1 and 3, not undermining bearings. Horizontal crack with corrosion staining in south abutment breastwall.
301	PX: Multiple locations of holes in the pourable joint seal.
303	The concrete headers near the expansion joint over pier 5 has deteriorated and appears to have worn away.
311	PX: Excessive expansion of both bearings for span 1 at pier 1 and the east truss bearing for span 3 at pier 3. FX: West bearing for span 6 at pier 5 has 3/16-inch pack rust between the base plate and rocker.

