

Oklahoma Dept. of Transportation - Bridge Inspection Report

NBI No.: 15555	Structure No.: 5568 1146NX	Local ID: -1	Suff. Rating: 84.80	ND																														
Bridge Description: IDENTIFICATION 55ft.-70ft.-55ft. I-BM. SPANS SK. 38 DEG.47ft.43ft.		INSPECTION <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>1</td> <td>24 months</td> <td>9/27/2018</td> <td>09/27/2020</td> </tr> <tr> <td>FC:</td> <td>N</td> <td>0</td> <td></td> <td>NA</td> <td>NA</td> </tr> <tr> <td>UW:</td> <td>N</td> <td>0</td> <td></td> <td>NA</td> <td>NA</td> </tr> <tr> <td>OS:</td> <td>N</td> <td>0</td> <td></td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>			Type	Insp. Req.	Insp. Done	Freq.	Insp. Date	Next Insp.	NBI:		1	24 months	9/27/2018	09/27/2020	FC:	N	0		NA	NA	UW:	N	0		NA	NA	OS:	N	0		NA	NA
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UW:	N	0		NA	NA																													
OS:	N	0		NA	NA																													
1. State: Oklahoma 2. Division: Division 4 3. County: OKLAHOMA 4. City: OKLA. CITY Admin Area: Unknown 5a. On/Under: Route On Structure 5b. Kind of Hwy: Interstate Hwy 5c. Lvl of Svc: Mainline 5d. Route No.: 00040 5e. Dir. Sufx: N/A (NBI)		7. Facility Carried: I-40 WB 6. Feat. Intersect: I-240 WEST UNDER 9. Location: 11.3 MI E OF JCT I35 11. Mile Post: 11.457 mi 13. LRS Inv. / Sub Rte: 5568 N000 / 07 16. Latitude: 35° 24' 15.76" 17. Longitude: 097° 17' 29.34" 98. Border Brdg: Not Applicable (P) % Responsible: 0.00 99. Border Brdg #: Unknown																																
STRUCTURE TYPE AND MATERIALS 43a/b. Main Span: Steel / Stringer/Girder 44a/b. Appr. Span: N/A / Not Applicable (P) 45. # of Main Spans: 3 46. # of Appr. Spans: 0 107. Deck Type: Concrete-Cast-in-Place 108a. Wearing Surface: Monolithic Concrete 108b. Membrane: None 108c. Deck protection: Epoxy Coated Reinforci		CLASSIFICATION 12. Base Hwy Net.: On Base Network 20. Toll Facility: On free road 21. Custodian: State 22. Owner: State 26. Function Class: 11 Urban Interstate 37. Historical Sig.: Not eligible for NRHP 100. Def. Hwy: On Interstate STRAHNE																																
AGE AND SERVICE 19. Detour Length: 0.1 mi 27. Year Built: 1962 28a/b. Lanes on/und: 2 / 2 29. ADT: 18,200 30. Year of ADT: 2016 42a/b. Type of Svc on/und: Highway / Highway		CONDITION 58. Deck: 6 Satisfactory 62. Culvert: N/A (NBI) Flowline Notes 59. Sup.: 7 Good 61. Chan./Chan. Prot.: N/A (NBI) 60. Sub: 5 Fair																																
GEOMETRIC DATA 10. Vert. Clearance: 99.99 ft 32. Appr Rwy Width: 38.00 ft 33. Median: No median 34. Skew: 51.00° 35. Struct. Flared: No flare 47. Horizontal Clr: 30.00 ft 48. Length Max Span: 70.00 ft 49. Struct. Length: 183.00 ft		LOAD RATING AND POSTING 31. Design Load: MS 18 (HS 20) 41. Post. Status: A Open, no restriction 70. Posting: 5 At/Above Legal Loads 63. Op / 65. Inv. Rating Meth.: 1 LF Load Factor / 1 LF Load Factor <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>H</th> <th>HS</th> <th>3-3</th> <th>EV3</th> <th>SHV</th> </tr> </thead> <tbody> <tr> <td>64. Operating Rating (tons):</td> <td>76.61</td> <td>99.89</td> <td>145.29</td> <td>-1.00</td> <td>0.00</td> </tr> <tr> <td>66. Inventory Rating (tons):</td> <td>45.97</td> <td>60.19</td> <td>87.19</td> <td>-1.00</td> <td></td> </tr> </tbody> </table>				H	HS	3-3	EV3	SHV	64. Operating Rating (tons):	76.61	99.89	145.29	-1.00	0.00	66. Inventory Rating (tons):	45.97	60.19	87.19	-1.00													
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OKLAHOMA ITEMS 200c. Temperature: 63 200d. Weather: Clear 201. Struc.Stl. ASTM Desig.: -1 / -1 202. Waterprf. Membrane: -1 Date Installed: 01/01/1901 203. Type Exp. Device: Elastomeric Strip Seal Pourable 204. Type of Railing: SFP-1 205. Material Quantity: 404.00 208a. Type of Abutment: Cantilever b. Type of Found.: Bears on Natural Found. 209. Type of Pier/Found.: 4 / No No Piling/Drilled Shaft 210. Foundation Elev.: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>-1.00</td> <td>-1.00</td> <td>-1.00</td> </tr> <tr> <td>-1.00</td> <td>-1.00</td> <td>-1.00</td> </tr> </table> 211. Wear. Surf. Prot. Sys: Silane Date Installed: 01/01/1901 213. Utilities Attached:		-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	APPRaisal 36a. Brdg Rail: 1 Meets Standards 36b. Transition: 1 Meets Standards 36c. Appr. Rail: 1 Meets Standards 36d. Appr. Rail Ends: 1 Meets Standard 67. Str Evaluation: 5 Above Min Toler																										
-1.00	-1.00	-1.00																																
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214a. Posted Weight Limit: NR b. Posted Speed Limit: 55 c. Narrow/1way Brdg Sign: No d. Vertical Clr. Sign: Yes Adv. Warning Sign: No e. Navigation Lights?: NA Working/Not Working: NA 215. Overpass: INTERSTATE 221. Substr. Cond. (U/W): 222. Fill Over RCB: 223. Appr. Slab/Rwy Cond.: 1 225. Paint Type/Ovrct: MoisturCure(SC-MC-U)G N/A 226. Date Painted: 1993 227. Paint Color: Gray 233. Deck Forming: Conventional Forming 238. School Bus Rte.: Current & Desired route 240. Appr. Rwy Type.: Asphalt/Bituminous 243. Grdr Spacing/No.: /		PROPOSED IMPROVEMENTS 94. Bridge Cost: \$4,444,286 95. Roadway Cost: \$4,500,000 96. Total Cost: \$9,450,566 97. Yr. of Cost Est.: 2015 75. Type of Work: 31 Repl-Load Capacity 76. Lngth of Improvement: 508.5 ft 114. Future ADT: 29,120 115. Yr. of Future ADT: 2036																																
244. Span Lengths: 245. Girder Depth: 246a. Type of Overlay: NA b. Overlay Thickness: 0.00 c. Overlay Date: 01/01/1901 d. Ovlv Depth Changed >1": N 247. Protective Systems: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>DPWR/Epoxy Coated Ba</td> </tr> <tr> <td></td> <td></td> </tr> </table> 248. # Field Splices w/ Corrosion: 249. Scour Crit. POA Exists?: - 250. Headwall: 254. Thru Truss Type: 257a. OkiePROS Truck Routing: Yes 258. Plans w/Found.in ODOT File: 259. Scour Eval. in ODOT File: 263. Interchange at Intersection: Partial 264. Interstate Milepoint: 164.74			DPWR/Epoxy Coated Ba			NAVIGATION DATA 38. Nav. Control: NA-no waterway 39. Vert. Clearance: 0.0 ft 40. Horiz. Clearance: 0.0 ft 111. Pier Protect.: Not Applicable (P) 116. Lift Bridge Vert. Clr.: 0.0 ft																												
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Inspection Date: 9/27/18 Reported By: Gary Hines

Invoice No.: GLH918 Inspected With:



BRIDGE NOTES:

THE 'SX' STRUCTURE CONTROLS THE UNDER CLEARANCE FOR THIS PAIR OF BRIDGES.
 * ONLY ONE BEAM IS 20 KSI - THE REST ARE 18 KSI*
 * THE ORIGINAL BRIDGE HAS SPREAD FOOTINGS ON 3 OF THE 4 COLUMNS AT THE BENTS*
 * THE WIDENING PROJECT HAS DRILLED SHAFTS ON THE ABUTMENTS & ONE COLUMN AT EACH BENT*

INSPECTION NOTES: 9/27/18

G Hines inspection comments - 9/27/2018
 Good asphalt approach roadway (top & bottom) * Safety below = 1111 * Satisfactory side drains * Some repairs noted on the NE slope wall * There is West-bound traffic only under the structure * There isn't any trailing railing on the structure * Posting is now 17'-1" * Temporary rail for roadway project to the east reduces clearance to 30ft *

ELEMENT CONDITION STATE DATA

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Re Concrete Deck	sq.ft	6,945.20	39%	2,725.20	60%	4,170.00	1%	50.00	0%	0.00
There are several small to moderate spalls along the joints over bents #1 & 2. Light wear present in the wheel lanes. Also see SF #958.											
107 / 4	Steel Opn Girder/Beam	ft	900.00	98%	880.00	2%	20.00	0%	0.00	0%	0.00
Good paint overall. Some old minor inactive pitting noted in a few scattered areas. Tiny chipped areas noted on flange edges in a few areas. Minor fading on scattered areas.											
515 / 4	Steel Protective Coating	sq.ft	10,076.00	100%	10,076.00	0%	0.00	0%	0.00	0%	0.00
Good paint overall. Some old minor inactive pitting noted in a few scattered areas. Tiny chipped areas noted on flange edges in a few areas. Minor fading on scattered areas.											
205 / 4	Re Conc Column	each	8.00	63%	5.00	38%	3.00	0%	0.00	0%	0.00
Moderate cracking noted on #1 in bent #2 & light cracking on #3 in bent #1. Minor scaling on #1 in bent #1. All columns have some deterioration of the protective coating (25%).											
215 / 4	Re Conc Abutment	ft	186.00	32%	59.00	56%	105.00	12%	22.00	0%	0.00
PX - Lots of light to heavy horizontal cracking & crumbling along the edge of the seat on the East abutment below each bay (2006 photo). The protective coating has failed in all areas of each abutment due to joint seepage. There are also some horizontal cracks present on the South half of the West abutment. Some deep crumbling & spalling along the edge of the East seat between 3-4 & 5-6 pedestals. The protective coating is failed 98%.											
923 / 4	Conc Substr Prot Coa	(SF)	3,652.00	100%	0.00	0%	3,652.00	0%	0.00	0%	0.00
FX - The substructure coating is fair on the bents & poor on the abutments.											
234 / 4	Re Conc Pier Cap	ft	126.00	100%	126.00	0%	0.00	0%	0.00	0%	0.00
Some water staining noted on outer ends from joint seepage. The protective coating is deteriorated at the north end of bent #1 (100 sq ft).											
300 / 4	Strip Seal Exp Joint	ft	126.00	0%	0.00	100%	126.00	0%	0.00	0%	0.00
FX - Cracking & spalling of the nosing material in several areas along each joint. Soil needs cleaned out. Spalling of the deck along the nosing at each joint is present as well.											
310 / 4	Elastomeric Bearing	each	36.00	100%	36.00	0%	0.00	0%	0.00	0%	0.00
-1											
321 / 4	Re Conc Approach Slab	sq.ft	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
PX - The end armor is damaged on the east slab. Each approach has some minor to moderate cracking - there is also a moderate crack on the east. One void needs filled on the East where a pavement marker was mounted.											
331 / 4	Re Conc Bridge Railing	ft	367.50	69%	254.50	30%	110.00	0%	0.00	1%	3.00
FX - Several light vertical cracking noted in many areas. Moderate damage present on the NW end (photo).											
924 / 4	Conc Rail Prot Coat	(SF)	1,835.00	100%	0.00	0%	0.00	0%	0.00	0%	1,835.00
FX - The rail coating is poor overall.											
859 / 4	Soffit	(EA)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
Lots of light transverse cracks with minor efflorescence in each span. Some are every 3ft. to 4ft. in span #2 (2006 photo).											
865 / 4	St.Open Gird End(5Ft)	(LF)	180.40	94%	170.40	6%	10.00	0%	0.00	0%	0.00
Good paint overall. Some old minor inactive pitting noted in a few scattered areas. Tiny chipped areas noted on flange edges in a few areas. Minor fading on scattered areas.											
870 / 4	Concrete Wingwall	(EA)	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
909 / 4	Pourable Fix Jt.Seal	(LF)	126.00	0%	0.00	0%	0.00	0%	0.00	100%	126.00
PX - The sealant has failed in the wheel lanes over each abutment with seepage evident below.											
916 / 4	St.Bearing Assembly	(LF)	36.00	81%	29.00	19%	7.00	0%	0.00	0%	0.00
Some surface rust is developing on a few abutment anchor bolts.											
956 / 4	St. Cracking/Fatigue	(SF)	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00

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PX - There appears to be a hairline crack in the web of the 5th beam in span #1 at the diaphragm connection (2010 photo). Needs to be checked with dye penetrate. No change (2014) - may not be a crack. 2016 - The absence of staining lends credence that this is probably a defect in the paint only - remove next inspection if no change.

958 / 4	Concrete Cracking SF	(EA)	1.00	0%	0.00	0%	0.00	0%	0.00	100%	1.00
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PX - LOTS of light to moderate transverse & longitudinal cracks in each span. Some cracks are every 2ft. to 4ft. in span #2. Needs sealed soon- approximately 60% of the total area is affected.