	lanoma L	Dept. of Transporta		nispection (teport	
NBI No.:			ocal ID:	Suff. Rating:	ND
17611	5159 0	JOUU Ā	-1 	66.70 INSPECTION	
Bridge Description.	<u> </u>		Type Insp. Req		Next Insp.
4(100ft.CONT.) (207ft334ft207ft.CONT.)3(100ft.COI	JT )4(100ft C∩N	IT 175ff PLATE	NBI:	0 24 months 7/14/2023	07/14/2025
		·	FC: Y	0 24 months 7/14/2023	7/14/2025
	acility Carried		UW: Y OS: Y	0 60 months 10/14/2022 1 24 months 7/18/2024	10/14/2027 7/14/2026
2. Division: Division 1 6. Fe	-	RKANSAS RIVER SEQUOYAH C/L	03: 1	CLASSIFICATION	7714/2020
4. City: Unknown	11. Mile Post:	2.999 mi	12.Base Hwy Net.: No		bridge exists
Admin Area: Unknown		/ Sub Rte: -1 / -1		· · · · · · · · · · · · · · · · · · ·	ay traffic
5a. On/Under: Route On Structure	16. Latitude:	35° 31' 14.59"	21. Custodian: State	103. Temp. Str.: Not	Applicable (P)
5b. Kind of Hwy: State Hwy 5c. Lvl of Srvc: Mainline	17. Longitude: 98. Border	095° 07' 24.89" Unknown (P)	22. Owner: State	1	on NHS
5d. Route No.: 00100	% Řesponsible	, ,	26. Function Class: 0 37. Historical Sig.: No	7 Rural Mjr Collector 105. Fed Land Hwy: IRR-	
5e. Dir. Sufx: N/A (NBI)	99. Border Brd	g #: Unknown	100. Def. Hwy: Not a		
STRUCTURE TY	PE AND MATE	RIALS	1221 2511 11771 11010	CONDITION	,
43a/b. Main Span:	Steel Cont. /	Girder-Floorbeam	58.Deck: 6 Satisfac		Satisfactory
44a/b. Appr. Span:	Steel /	Stringer/Girder	62.Culvert: N/A (NBI		,
45. # of Main Spans: 3			Flowline Notes:	-	
46. # of Appr. Spans: 11 107. Deck Type: Concrete-Ca	set_in_Place		I I	ral scour ranging from 5-ft to15-ft, west of Pier	
108a. Wearing Surface: Epoxy Over			construction. The top	of the footing at Piers 4, 5, 6, 8 and 9 are expe	osed; 
108b. Membrane: None	,			LOAD RATING AND POSTING	
108c. Deck protection: Unknown				MS 18 (HS 20)  Date Rated	11/24/2003
AGE A	ND SERVICE			Open, no restriction  At/Above Legal Loads	
19. Detour Length: 9.9 mi	106. Year Rec	onst,:	63.Op / 65.Inv. Rating	•	oad Factor
27. Year Built: 1969	109. Truck AD	T: 15%		H HS 3-3 EV	_ —
28a/b. Lanes on/und: 2 / 0			64. Operating Rating	· · — — — —	<u> </u>
29. ADT: 3,300 30. Year of ADT: 2022			66. Inventory Rating (	tons): 19.95 32.63 45.53 -1.0	00
42a/b. Type of Svc on/und: Highway	· /	Waterway		<u>APPRAISAL</u>	
	ETRIC DATA	<b>y</b>	1 ~	Substandard 68. Deck Geom.: 4 To Meets Standards 69. Vert./Horiz. Undclr:	lerable
10. Vert. Clearance: 99.99 ft	50a. Curb/Sdw	/lk Width L: 1.50 ft		Meets Standards 71. Waterway Adeq: 8	
32. Appr Rwy Width: 44.00 ft	50b. Curb/Sdw		36d. Appr.Rail Ends:	1 Meets Standarc 72. Appr. Alignment: 6 E	
33. Median: No median	51. Width Curk		67. Str Evaluation:	5 Above Min Tolera 113. Scour Critical: 8 S	table Above Foo
34. Skew: 0.00°	52. Width Out			PROPOSED IMPROVEMENT	
35. Struct. Flared: No flare 47Horizontal Clr: 28.00 ft	Deck Area 53. Min.Vert.C		94. Bridge Cost:	\$11,530,195 75. Type of Work: 31 R	tepl-Load Capa
48. Length Max Span: 333.99 ft	54a.Min.Vt.Un	•	95. Roadway Cost:	\$4,500,000 76. Lngth of Improvemen	
49. Struct. Length: 1,928.15 ft	54b. Min. Vert.	•	96. Total Cost: 97. Yr.of Cost Est.:	\$16,937,565 114. Future ADT:	5,280 2042
	55a. Min.Lat.U	•	97. 11.01 COSt ESt	2015 115. Yr.of Future ADT:	2042
	55. Min.Lat.Un		38. Nav. Control:	<u>NAVIGATION DATA</u> Permit Required	
	56. Min.Lat.Un		39. Vert. Clearance:	52.0 ft 111. Pier Protect.: 2	In-Place, Funct
200c. Temperature: 99	OKLAHOMA	 	40. Horiz. Clearance:	300.0 ft 116. Lift Bridge Vert. Clr.	: 0.0 ft
200d. Weather: Clear	36 / -1	214a. Posted Weight Limit:	NR	244. Span Lengths: 100 100	100
201. Struc.Stl. ASTM Desig.: A- 202. Waterprf.Membrane: -1	JU / - I	b. Posted Speed Limit:		100 207 334 207	100
Date Installed: 01/01/190	1	c. Narrow/1way Brdg Sign:	NA NA	245. Girder Depth:	
203. Type Exp. Device: Finger		d. Vertical Clr. Sign: Adv. Warning Sign:	NA NA	246a. Type of Ovelay: Polymer Conc.	
 204. Type of Railing:	uare hand rail	e. Navigation Lights?:	Yes	b. Overlay Thickness: 0.10	
205. Material Quantity: -3.00	aaro nanu tali,	Working/Not Working:	Yes	c. Overlay Date: 05/01/2014 d. Ovly Depth Changed >1": N	
208a. Type of Abutment: Skeleton		•	ATE HIGHWAY	247. Protective Systems:	
b. Type of Found.: Steel Pilin 209. Type of Pier/Found.: 2	g / No	218. Functionally Obsolete : 220. Bridge Redecked	-		
Spread Fo	'	· ·	_ tisfactory Condition		
210. Foundation Elev.: 4,402.00	4,352.00	222. Fill Over RCB: 0	Jonation	248. # Field Splices w/ Corrosion: 3	
-1.00 4,400.00	-1.00	223. Appr.Slab/Rwy Cond.:	2	249. Scour Crit. POA Exists?:	
211. Wear.Surf.Prot.Sys: None			ganic Zinc(OZ-E-U) Gra	250. Headwall: 258. Plans w/Found.in ODOT File	
Date Installed: 01/01/190	1	N/A		259. Scour Eval. in ODOT File:	
211c. Silane Reapplied		226. Date Painted: 20° 227. Paint Color: Gra		263. Interchange at Intersection: No	
211d. Date :		233. Deck Forming:	ау	264. Interstate Milepoint:	
213. Utilities Attached: Communica	tion	· ·	rrent & Desired route		
Natural Gas Power		240. Appr. Rwy Type.: Co 243. Grdr Spacing/No.:	ncrete		

	<u>NBI No.:</u> <u>Struct</u> 17611 5159		_	<u>Local ID:</u> -1	<u>Suff. Rating:</u> 66.70	ND
Inspection Date:	7/18/24		Ed Cinadr			
Invoice No.:	1160667	Inspected With:	-1			

## **BRIDGE NOTES:**

15 span structure consisting of: Spans 1-4 100-foot long continuous steel multi girders spans; Spans 5-7 three span continuous steel twin girders (207 feet, 334 feet, 207 feet); Spans 8-10 three 100-foot long continuous steel multi girders spans; Spans 11-14 four 100-foot long continuous steel multi girders spans; Span 15 100-foot long simple steel multi girder span.

### O/S Inspection items include:

- Girder web cracks at:
- o Span 5, G 1 (south face) between FBs 4 and 5 1 1/4-inch paint crack in web at the longitudinal stiffener cored hole (perform Magnetic Particle Testing during 2022 O/S inspection)
  - o Span 5, G 1 at the field splice near FB 5 5/8-inch crack with no arrestor hole.
  - o Span 5, G 2 at the field splice near FB 5 paint crack.
  - o Span 6, G 1 at the field splice near FB 3 arrested crack.
  - o Span 6, G 2 at the horizontal field splice termination near FB 11 3/16-inch crack.
  - o Span 7, G 1 at the field splice near FB 4 paint crack.
  - o Span 7, G 2 at the field splice near FB 4 arrested crack.
  - · Cracks in the stringer connection angles welds to replaced FBs at:
    - o Span 5, stringer 3 connection to FB 3
    - o Span 7, stringer 1 connection to FB 0
    - o Span 7, stringer 3 connection to FB 0
- · Crack on exterior face of span 15, beam 1 in near pier 14.
- · Cracked FB to girder connection welds:
  - o Span 5, FB 6 upper connection to G 1 5 1/2-inch crack in connection plate weld
  - o Span 6, FB 0 lower connection to G 2 horizontal weld cracked full length.
  - o Span 7, FB 0 lower connection to G 2 1 1/8-inch and 1/2-inch cracks in welded repair.

ſ	NBI No.:	Structure No.:	Local ID:	Suff. Rating:	ND
Į	17611	5159 0300 X	-1	66.70	ND

## INSPECTION NOTES: 7/18/24

2024/07/18 Other/Special inspection notes. No significant changes to OS items as noted in the Structure Notes except for:

- · Cracked FB to girder connection welds:
  - o Span 5, FB 6 upper connection to G 1 5 1/2-inch crack in connection plate weld (3/8-inch growth).

Channel Notes: The channel in the vicinity of the bridge has a slight bend and is well aligned with the piers. There are spur dikes on the east bank (outside of the bend), approximately 450-ft, 1400-ft, and 2700-ft upstream of the bridge. Both embankments are protected with dense vegetation. The embankments appear stable. There is light to moderate timber debris on the channel bottom at Piers 3, 4, 7, 8, 9, and 10; however, there are no significant restrictions to flow at the bridge. The channel bottom material at the piers consists of sand, gravel, and rock.

UW Inspection General Notes: The submerged portions of the substructure are in satisfactory condition. There is light abrasion on the columns and webwalls ranging from 1/16-in deep to 1/8-in deep and algae growth.

#### PX

- · Replace N railing post anchor bolts missing at eastern most railing post.
- · Unclog deck scuppers.
- · Reseal fixed poured joint seal at both abutments.
- · Arrest girder web cracks at horizontal splice termination at:
- o Span 5, G 1 at field splice near FB 5 5/8 inch.
- o Span 6, G 2 near FB 11 3/16-inch-long vertical crack in lower web plate.
- · Replace missing bolts and tighten loose bolts at
- o Girder splice locations
- o FB connection to girders in spans 5, 6 and 7.
- o Stringer connection to FBs in spans 5, 6 and 7.
- Repair cracked web connection plate weld for FB 6 in span 5 at G 1.
- Reattach FB 0 lower connection to G 2 in span 6.
- Repair cracks in lower lateral bracing in span 5, FB 7, G 2 and span 6, FB 12, G 2, and other similar locations.
- · Tighten loose anchor bolts and replace missing or bent anchor bolts .

#### FX - Monitor.

- · Monitor deck soffit along girders, FBs and stringers for further spalling.
- Monitor vertical offset of finger joints for changes in height at piers 4 and 7.
- · Monitor locations of girder web cracks having drilled hole retrofits or paint cracks at horizontal splice termination at:
- o Span 5, G 2 at field splice near FB 5 paint crack.
- o Span 6, G 1 at field splice near FB 3 arrested crack.
- o Span 7, G 1 at field splice near FB 4 paint crack.
- o Span 7, G 2 at field splice near FB 4 arrested crack.
- Monitor 1 1/4-inch long paint crack in span 5, G 1 web at longitudinal stiffener cored hole between FBs 4 and 5 (Magnetic Particle Testing to be performed during 2022 O/S inspection).
- $\bullet \ \ \text{Monitor cored hole locations in longitudinal stiffeners for crack development in girder web }.$
- Monitor bow in web of G 1, span 7 at field splice between FBs 3 and 4.
- Monitor cracked welds at cross frame connection to girders due to pack rust.
- Monitor cracks at stringer connection angles at:
- o Span 5, stringer 3 connection to FB 3
- o Span 7, stringer 1 connection to FB 0
- o Span 7, stringer 3 connection to FB 0
- Monitor welded connections at recently replaced FBs.

## **ELEMENT CONDITION STATE DATA**

Elem. / Env	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4	
12 / 1	Re Concrete Deck	sq.ft	53,984.00	0%	0.00	100%	53,984.00	0%	0.00	0%	0.00	

PX – Minor to moderate debris along curbs. The deck scupper in span 10 near pier 10 is clogged. Several additional scuppers are partially clogged with vegetation.

Isolated shallow spalls exist in the deck.

Longitudinal cracks exist along the deck surface, mostly in the wheel lines.

Transverse cracks spaced at 1 to 3 feet exist on the surface randomly along the full length of the bridge. Cracks are widest and most prominent in the twin circler spans

Deck patches exist from a prior rehabilitation. The deck patches are functioning as intended.

Note: The deck is being coded CS2 (Soffit CS3) due to areas of the deck being visible due to the deterioration of the wearing surface.

510 / 1	Wearing Surfaces	sq.ft	53,984.00	60%	32,391.00	35%	18,894.00	5%	2,699.00	0%	0.00	
	Epoxy grit overlay (installed 2014) failing in patches throughout the deck, mostly along the wheel lines.											
107 / 1	Steel Opn Girder/Beam	ft	4,780.00	82%	3,900.00	10%	478.00	8%	402.00	0%	0.00	

Local ID: NBI No.: Structure No.: Suff. Rating: ND 5159 0300 X 17611 66.70 Fracture Critical twin girder spans exist in spans 5 through 7 and have the following comments: Cracks at horizontal web splice terminations at: PX - Span 5, G 1 near FB 5 - 5/8 inch, not arrested. FX – Span 5, G 2 near FB 5 – 3/8 inch (likely paint crack). FX - Span 6, G 1 near FB 3 - 3/4 inch, arrested with two holes. PX - Span 6, G 2 near FB 11 - 3/16 inch, not arrested. FX - Span 7; G 1 near FB 4 - 1 inch and 1 1/8 inch (likely paint cracks) in girder web at toe of longitudinal stiffener.  $\mathsf{FX}-\mathsf{Span}\ \mathsf{7};\ \mathsf{G}\ \mathsf{2}\ \mathsf{near}\ \mathsf{FB}\ \mathsf{4}-\mathsf{Two}\ \mathsf{vertical}\ \mathsf{cracks}\ \mathsf{arrested}\ \mathsf{with}\ \mathsf{drilled}\ \mathsf{hole}\ \mathsf{retrofits}\ .$ PX - Missing or loose bolts at: Span 5, G 2 near FB 5 Span 6, G 1 top interior top flange. Span 6, G 1 interior face horizontal splice at pier 6 Span 6, G 2 exterior face top and bottom flanges near FB 3. Span 6, G 2 exterior face horizontal splice near FB 12. Span 7, G 1 exterior face horizontal splice near FB 3. FX – A global bow up to 1/2 inch exists in the web of G 1; span 7 between FB 3 and 4 at the field splice. 1/8-inch pack rust between top flanges and deck is common. FX - Cracks (retrofitted) at longitudinal stiffener butt welds at: Span 5; G 1 between FB 4 and 5. A paint crack has formed along the girder web. Span 6; G 1 near FB 6 Span 6; G 1 near FB 7 Span 6; G 1 near FB 9 Span 6; G 2 near FB 9 Span 7; G 2 between FB 7 and 8 Painted over pitting was observed in the web of the girders adjacent to the top of lower lateral bracing gusset plates. Pack rust (1/2 inch) between horizontal web splice causing distortion at several locations. Pack rust (5/16 inch) at bottom flange splice plates. Heavy laminating corrosion was noted at the girder horizontal web splices at the bearing stiffeners over piers 5 and 6. G 2 over pier 6 also has up to 50% section loss to 4 of 6 bolts. Pack rust (3/16 inch) in girder top flange at deck joints. One missing bolt was noted at the FB 2 connection to G 1; span 7. Multi girder spans exist in spans 1 through 4 and 8 through 15 and have the following comments: FX – Isolated CF top struts exhibit cracked welds between the CF and gusset plate due to pack rust. The following locations exhibited cracks: CF at pier 1 to G 3 - 53/8 inch. CF at pier 3 to G 4 - 1/4 inch. CF at pier 4 to G 1, span 4 - 1/4 inch. CF at pier 12; connection to G 2 - full length of gusset plate. Pack rust (1 1/4 inches) typical between CF members and vertical web stiffeners. Minor to moderate pitting and distortion to the gusset plate also present at these locations. Girder cross frames between G 1; 2 and 3 at pier 9 and pier 10 exhibits a 3-inch bow, most likely due to the bearing rehabilitation project. Vertical crack (1 3/4 inch) in bearing stiffener fillet weld at exterior face of G 1, span 15 at pier 14. Steel Protective Coating 515/1 sq.ft 140,000.00 0% 0.00 100% 140,000.00 0.00 Painted in 2010. Areas of previous corrosion and pack rust are reactivating in many locations especially at gusset plates near the expansion joints. Pack rust is active in many girder horizontal web splices. Previous PX of laminating corrosion and pack rust at lower lateral bracing gusset plates were repaired prior to the 2014 OS although corrosion is reactivating in isolated locations 97% 1,850.00 1,914.00 0.00 113 / 1 Steel Stringer ft 3% 50.00 PX – Loose stringer connection bolts between connection angle and FB web at Span 5, stringer 2 at FB 4 - 1 loose bolt Span 5, stringer 3 at FB 4 - 1 loose bolt Span 5, stringer 3 at FB 8 - 1 loose bolt Span 6, stringer 1 at FB 3 - 4 loose bolts Span 6, stringer 2 at FB 3 – 1 loose bolt Span 6, stringer 3 at FB 4 – 1 loose bolt Span 6, stringer 1 at FB 5 - 2 loose bolts Span 6, stringer 1 at FB 6 – 2 loose bolts Span 6, stringer 2 at FB 6 - 1 loose bolt Span 6, stringer 3 at FB 6 – 3 loose bolts Span 6, stringer 3 at FB 8 - 3 loose bolts Span 6, stringer 1 at FB 11 - 5 loose bolts Span 6, stringer 1 at FB 12 - 1 loose bolt Span 7, stringer 3 at FB 4 - 1 loose bolt Multiple stringers have mis-drilled holes in bottom flange at FB connections. Steel Floor Beam ft 891.00 57% 508.00 22% 200.00 21% 0.00 152 / 1

NBI No.: Structure No.: Local ID: Suff. Rating: ND 5159 0300 X -1 17611 66.70 The FBs in spans 5 through 7 act as trusses PX - FB 6; span 5 at G 1 has 5 1/8-inch crack in weld for upper connection plate PX - FB 0; span 6 at G 2 cracked full length of bottom weld and full height of vertical weld. PX – Span 5; west face of FB 6 at G 1, weld for the web connection plate cracked 4 1/2 inches. PX - Loose and misaligned bolts exist in the FB to G connections at several locations. FX - FBs replaced at FB 3 span 5; FB 0 span 6; and FB 0 span 7 with welds having irregular contour. Previous repair to FB 0 at G 2 span 7 was reattached via welded plate and has 1 1/8-inch and 1/2-inch cracks in welds. Several kinks and bends in FB members and gusset plates. Span 6, U3L2 of FB 2 has several shallow gouges 3/8 inch deep in the bottom flange. FB 4; span 6 exhibits two mis-drilled holes in the bottom flange under stringer 3. Oversized holes exist randomly throughout the FBs. Span 6, FB 6 top flange has 14-inch by 1-inch corrosion hole with adjacent knife edging. Several FBs exhibit surface corrosion along top flange and deck pumping. Corrosion of flanges and 1/8 inch pitting on bottom face of top flange. FLOOR BRACING SYSTEM PX - Span 5 LLB at G 2; east face of FB 7 has 5-inch crack in weld to gusset plate. PX - Span 6 LLB at G 2; east face of FB 12 has 5 3/4-inch crack in weld to gusset plate. LLB hanger rods are severed or missing backet to stringer in several locations. Span 6 LLB between FBs 3 and 4 has 1 inch pack rust causing the bracing to rotate. A 5-inch by 2-inch corrosion hole exists through LLB gusset plate at the edge of the FB 6 stiffener to G 1; span 7 0.00 205 / 1 Re Conc Column each 26.00 88% 23.00 0% 3.00 0% North column of pier 4 exhibits cracking with efflorescence on east face. Column of pier 6 exhibits random full height vertical cracks with light efflorescence and full width spalling with exposed reinforcement at the cross-section change near the waterline. North column of pier 8 exhibits multiple spalls with exposed reinforcement. 215 / 1 Re Conc Abutment ft 80.00 0% 0.00 98% 78.00 E abutment slope protection covered in vines and vegetation. The bottom of the abutment breastwall is exposed due to prior erosion, no piles Bottom of breastwalls at both abutments are exposed up to 2 inches high and 4 feet wide at ends with up to 30 inches of penetration. Both abutments appear to be moving towards the channel. Both abutments are supported on vertical piles which are susceptible to movement from soil pressure acting behind the abutments. The east abutment exhibits a 7-foot wide patched area between girders 2 and 3 and a horizontal crack with rust staining near the girder 3 pedestal. 234 / 1 Re Conc Pier Cap ft 594 00 71% 424 00 20% 120 00 50.00 0% 0.00 Pier 1 - Spall in edge near girder 3 seat. Pier 2 - 3/16-inch crack along east and west edges near G 2 with adjacent delamination in top face. Pier 3 - 1/16-inch cracks on the top face with large delaminated areas. The web wall has multiple shallow spalls with exposed reinforcing in the west face Pier 4 - spalls and scaling exposing corroded reinforcing steel in the bearing seat areas and in west face over north column; Scaling (1/8 inch deep) around G 1 bearing, span 5. Pier 5 - West face at interface with the column exhibits multiple exposed and corroding reinforcing steel ends; random hairline shrinkage cracks and isolated areas of small delaminations. Pier 7 - map cracks in the patched areas and spalling with exposed reinforcement around the base of north column. Pier 8 - 1/16-inch x 5-foot longitudinal cracks along the west and east top edges at G 1 and G 2 and delaminated concrete. Cracking and delaminations are due to corrosion of the reinforcing steel. Pier 13 - longitudinal cracks along the edges under G 1 and G 2. Pier 14 - 1/16-inch cracks in top face with large delaminated areas. Spalling and scaling concrete with exposed corroded reinforcing steel exists in the bearing seat areas and on the south face 100% 0% Elastomeric Bearing 0% 310 / 1 each 12.00 12.00 0.00 0% 0.00 0.00 Previous rocker bearings for span 4 at pier 4, span 8 at pier 7; and span 11 at pier 10 have been replaced with elastomeric bearings Moveable Bearing 30.00 311 / 1 each 0% 0.00 87% 13% 4.00 0% 0.00 Typically exhibit rust staining and active laminating corrosion between the rocker and the masonry plate Keeper plates broken free or have cracked welds at sole plate for G 3 and G 4 at west abutment. Pier 10, G1 rocker has rotated about vertical axis with SW corner overhanging masonry plate 1/4 inch each 30.00 0% 0.00 7% 2.00 0% 0.00 313 / 1 PX - Bearing anchor bolts are loose with some working up out of bearing seat at multiple locations Typically exhibit surface corrosion forming with minor pack rust developing sq.ft 50% Re Conc Approach Slab 2.00 1.00 50% 1.00 0% 0.00 0% 321 / 1 Both approach slabs have been recently replaced. The east approach slab exhibits up to 0.020 inch wide longitudinal cracking in the wheel lines. A spall measuring 2 feet by 6 inches exists along the east abutment joint. Metal Bridge Railing 330 / 1 ft 3,856.00 95% 3,651.00 5% 200.00 0% 5.00 0.00 PX – Easternmost rail post along the north barrier at the end of the east approach slab is missing all four anchor bolts Spalls exist in the sidewalk of span 5 near piers 4 and 5. West termination of the north bridge rail is missing one rail post and multiple blockouts of the northeast approach railing are twisted / damaged. South bridge rail in span 7 near FB 7 exhibits corrosion holes through the steel tube. In span 10; the south metal rail near FB 3 has minor impact damage 919/1 St.(Rail) Prot. Coat 9,260.00 0.00 100% 9,260.00 sq.ft Isolated areas of the painted coating to the steel railing exhibit peeling paint due to adhesion failure between the top and intermediate coats. Areas of corrosion are beginning to bleed through. Re Conc Bridge Railing 3,856.00 100% 3,856.00 0% 331 / 1

	NB	BI No.: Str	ucture N	lo.:		Local I	D:		S	uff. Ratin	g:		
	17	7611 51	59 0300	X		-1			_	66.70			ND
	The	steel bridge railing has recently beer	painted	and the concre	ete bridge	railing has	recently b	een skim o	coated. Iso	lated areas	of the co	oncrete	
	rail e	exhibit minor cracking.											
		or debris exists along the toe of both											
		curbs exhibit active vertical cracks a				•							
	Tape	ered concrete curbs have been instal	_		to address		<del></del>			•		_	
859 / 1		Soffit	each	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00	
		- Isolated spalls, 4 to 6SF and up to 3		•		•							
		<ul> <li>Shallow spalls common along top fl</li> </ul>	ange of g	irders, floor be	ams, and	stringers.	solated lo	cations hav	ve spalls u	p to 1 foot v	vide with	exposed	
		oding reinforcing steel.											
		k lifting from girders and floor beams											
		tiple 1/4-inch-wide cracks exist along	•					•			r FBs.		
		nsverse cracks with efflorescence through	0 ,		1 3 TIOOT DE	eams/diapr	ragms of	ine piers a	na spacea	at 5 feet.			
		nkage and hairline map cracking is contributed in the main spans are filled in the map cracking is contributed in the main spans are filled in the map cracking is contributed in the main spans are filled in the m		•	ring the r	noont dook	overley in	otallation					
865 / 1	iviali	St.Open Gird End(5Ft	ft	180.00	78%	140.00	22%	40.00	0%	0.00	0%	0.00	
000/1	Λ otis	' '								0.00	0 70	0.00	
		ve corrosion was noted at the girder hat the girder hat the section loss up to 3/16-incles.		•		•	•						
970 / 4	rau	Concrete Wingwall	each	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00	
870 / 1	Nas		Cacii	4.00	10070	4.00	0 70	0.00	0 70	0.00	0 70	0.00	_
	NO S	significant deficiencies.	- Et	4 000 00	740/	000.00	00/	100.00	400/	040.00	00/	0.00	
872 / 1	_	St.Gird Und Const.Jt	ft	1,236.00	74%	920.00	8%	100.00	18%	216.00	0%	0.00	
	Paci	k rust and laminating corrosion has re							T				
877 / 1		St. Stringer End(5Ft)	ft	30.00	100%	30.00	0%	0.00	0%	0.00	0%	0.00	
	No s	significant deficiencies.								_		_	
879 / 1		St.Strng.Un Const.Jt	ft	300.00	100%	300.00	0%	0.00	0%	0.00	0%	0.00	
		<ul> <li>Stringer connetion angle weld crack</li> </ul>											
		an 5, stringer 3 at FB 3 – 3 1/2 inche											
		an 7; stringer 1 at FB 0 – 1 3/4 inche	3										
		an 7; stringer 3 at FB 0 – 1 inch.											
	A po	ortion of stringer 3; at FB 0; span 7 ha			00/	0.00	1000/	405.00	00/	0.00	00/	0.00	
906 / 1		Sealed Exp.Jt.(SEJ-3	ft	105.00	0%	0.00	100%	105.00	0%	0.00	0%	0.00	
		led expansion joints at the west abuti	nent, and	l over piers 10	and 14 ha	ive been re	eplaced an	id have mo	oderate del	oris impacti	on. Seale	ed	
	expa	ansion joints are all nearly closed.	- Et	70.00	0%	0.00	50%	25.00	50%	25.00	00/	0.00	
907 / 1		St.Finger Jt. (SED-2	ft	70.00		0.00		35.00		35.00	0%	0.00	
		4 finger joint exhibits moderate debri		•	•				gher from t	the west as	sembly to	o the east	
		embly. Two 5-foot sections of the pier			•								
000/4	Pier	7 finger joint exhibits moderate debri							37%	700.00	0%	0.00	
909 / 1	<b>-</b> >/		ft	1,890.00	8%	150.00		1,040.00				0.00	
		- Joint seals at the abutments have m		•					•			£=:1=	
		red seal deck control joints are space					teet in the	main spa	ns. Joint se	eais exhibit	areas of	tailure	
04674	and	the joint headers exhibit cracking and	<del></del>	12.00			00/	0.00	00/	0.00	0%	0.00	
916 / 1	<b>D</b>	St.Bearing Assembly	each		100%	12.00	0%	0.00	0%			0.00	
	Prev	vious rocker bearings for span 4 at pi				· ·							
956 / 1		St. Cracking/Fatigue	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00	

	(	Oklahoma Dept. of Tra	ansportation - B	ridge Inspect	tion Report	
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	MAIN SPAN TWIN GIRDI	ERS				
	Cracks at horizontal web	splice terminations at:				
		FB 5 – 5/8 inch, not arrested.				
		FB 5 – 3/8 inch (likely paint crack).				
		FB 3 – 3/4 inch, arrested with two holes				
		B 11 – 3/16 inch, not arrested.	•			
		FB 4 – 1 inch and 1 1/8 inch (likely pair	nt cracks) in girder web at to	e of longitudinal stiffer	ner	
	•	FB 4 – Two vertical cracks arrested with	, -	o or rongituanian ourion		
	•	at longitudinal stiffener butt welds at:				
	, ,	3 4 and 5. A paint crack has formed al	ong the girder web			
	Span 6; G 1 near FB 6	- · · · · · · · · · · · · · · · · · · ·				
	Span 6; G 1 near FB 7					
	Span 6; G 1 near FB 9					
	Span 6; G 2 near FB 9					
	Span 7; G 2 between FE	3.7 and 8web				
	opa, 0 2 2000					
	APPROACH SPAN MULT	TI GIRDERS				
	Vertical crack (1 3/4 inch)	in bearing stiffener fillet weld at exteri	or face of G 1, span 15 at p	ier 14.		
	FLOOR BEAMS	h. 540 to 1				
		has 5 1/8-inch crack in weld for upper	•			
	PA - FB U, Span 6 at G 2	cracked full length of bottom weld and	ruli neight of vertical weld.			
	STRINGERS					
	FX – Stringer connetion a	angle weld cracks at:				
	Span 5, stringer 3 at FB	_				
	Span 7; stringer 1 at FB					
	Span 7; stringer 3 at FB					
	-p,g •					
	CROSS FRAMES					
	FX - Isolated CF top stru	ts exhibit cracked welds between the C	CF and gusset plate due to p	ack rust. The following	ng locations exhibited of	cracks:
	CF at pier 1 to G 3 - 5 3	s/8 inch.				
	CF at pier 3 to G 4 - 1/4	inch.				
	CF at pier 4 to G 1, spar	n 4 – 1/4 inch.				
	CF at pier 12; connectio	n to G 2 – full length of gusset plate.				
	ELOOD DDAOINO OVOT	E.4				
	FLOOR BRACING SYST	EM east face of FB 7 has 5-inch crack in v	vold to guarant plata			
		east face of FB / flas 5-inch clack in v				
957 / 1	Pack Rust Si		0% 0.00 0%	0.00 100	% 1.00 0%	0.00
30171		cracking of connection welds for floor				
	bracing.		<b>3</b>	<b>,3</b>		
	•	ween bolted horizontal web splice in m	ain girders (spans 5-7) and	bottom flange splice p	lates in main and appr	roach
	girder spans.					
958 / 1	Concrete Cra	acking SF each 1.00	0% 0.00 0%	0.00 100	% 1.00 0%	0.00
	•	along the deck surface; mostly in the w				
	Transverse cracks exist of	on the surface randomly along the full le	ength of the bridge . Cracks	are widest and most	prominent in the twin g	jirder
	spans.					
	•	icks exist along the stringer deck haun	· ·	•		
		indom transverse cracking with efflores	scence throughout. The cra	icking is heaviest with	in 3 FBs/diaphragms c	of the piers
	and is typically spaced at					
960 / 1	Settleme	ap cracking is common throughout.  nt SF each 1.00	0% 0.00 0%	0.00 100	% 1.00 0%	0.00
960 / 1		be moving towards the channel base				
	top and bottom flange cle	_	a s mododiomonto botwee	zaoktran unu gnuer	goo. Dilloronoe b	55011
	W abutment = 2 1/8 inch					
	E. abutment = 2 1/8 inch					
963 / 1	Steel Section	Loss SF each 1.00	0% 0.00 100	% 1.00 0%	0.00 0%	0.00
	Painted over pitting was o	observed in the web of the girders adja	cent to the top of lower later	al bracing gusset plat	es.	
	FB 6 top flange in span 6	exhibits a 14-inch by 1-inch corrosion	hole with adjacent knife edg	ing.		
		on hole exists through LLB gusset plat	e at the edge of the FB 6 s			
969 / 1	OutOfPlane [	Dist./Load each 1.00	0% 0.00 100	% 1.00 0%	0.00 0%	0.00
		<del></del>				

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FX - Global 1/2-inch bow in web of G 1, span 7 between FBs 3 and 4 at the field splice.

FX – Several kinks and bends were noted in floor beam members and gusset plates. Locations:

FB 5; span 5 at G 2; L4 gusset plate - bow.

FB 2; span 5 at G 2; L4 gusset plate - bow.

FB 7; span 5; adjacent to G 2 - 3/8-inch kink in the U3 gusset plate under stringer 3 and approximately 1/8-inch bow in the L4 gusset plate.

FB 4; span 6 center gusset plate kinked.

FB 13; span 6 at L0L1 – exhibits 2 minor kinks.

FB 1; span 7 at stringer 3 – bottom flange of the upper chord is twisted to the east. The upper gusset plate under stringer 3 is kinked 1/2 inch on the vertical edges and 1/2 inch on the bottom horizontal edge. Vertical stiffeners are out of alignment. The center gusset plate is kinked 1/4 inch to the west.

FB 2; 5 and 8 in span 7 at stringer 3 – a 1/4-inch kink in the bottom horizontal face of the gusset plate and rotated up to 1/2 inch to the west. Poor weld quality exist between the north vertical stiffener under stringer 3 and FB 2 bottom flange.

Span 6; LLB has up to 1 inch of pack rust between the gusset plate and the floor beam causing the bracing to rotate.

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Photograph 1 - Looking west at the bridge end view.

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Photograph 2 - Looking southwest at the bridge elevation.

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Photograph 3 - Looking north at span 5, girder 1 outboard between floor beams 4 and 5. Note: No MT indication.

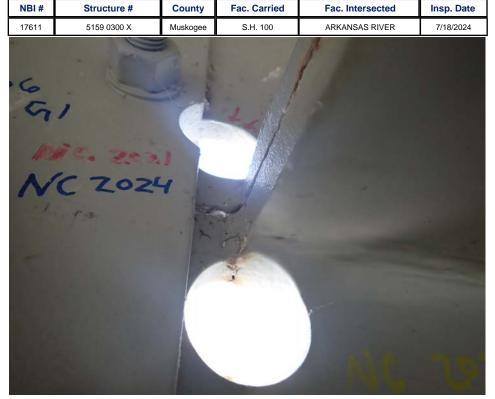


Photograph 4 - Looking southeast at span 5, girder 1 at the field splice near floor beam 5. Note: 5/8 inch-long crack in the inboard face at the horizontal web splice termination, no change.

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Photograph 5 - Looking northeast at span 5, girder 2 at the field splice near floor beam 5. Note: Two 3/8 inch-long paint cracks in the inboard face at the horizontal web splice termination, no change.



Photograph 6 - Looking south at span 6 girder 1, end of horizontal filed splice near floor beam 3. Note: 3/4-inch-long crack in the inboard face at the horizontal web splice termination has not propagated past the arrestor holes. Also note, 1/2-inch-long paint cracks along the top of the upper

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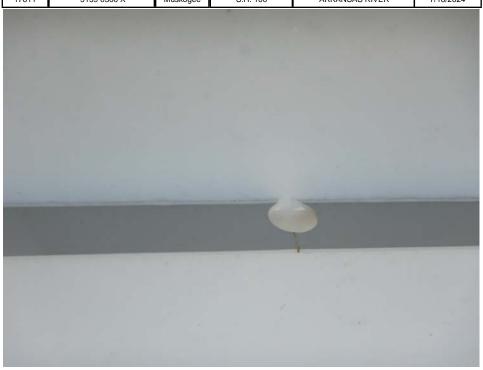
Photograph 7 - Looking southwest at span 6 girder 1, end of horizontal filed splice near floor beam 3. Note: 3/4-inch-long crack in the inboard face at the horizontal web splice termination has not propagated past the arrestor holes. 1/2-inch-long paint cracks along the top of the upper arrester

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Photograph 8 - Looking north at span 6, girder 1 outboard near floor beam 3 at field splice. Note: crack with arrestor holes.

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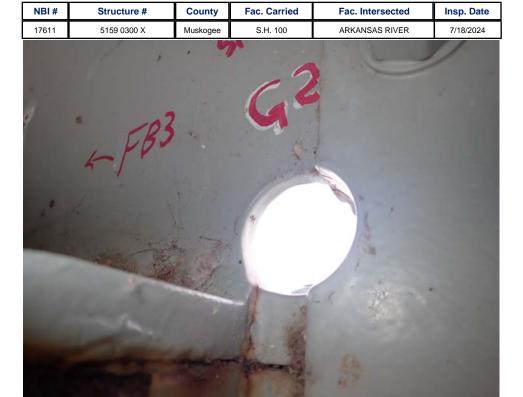
Photograph 9 - Looking north at span 6, girder 1 outboard near floor beam 7 at center channel light. Note: Crack in horizontal stiffener with arrestor hole.



Photograph 10 - Looking northwest at span 6, girder 2 at the field splice near floor beam 11. Note: No change to 3/16-inch-long crack in the inboard face at the horizontal web splice termination.



Photograph 11 - Looking south at span 7, girder 1 at the field splice near floor beam 4. Note: 1 inchlong paint crack in the upper web with an arrestor hole, and a 1 1/8-inch-long paint crack in the lower web without an arrestor hole in the inboard face at the horizontal web splice termination.



Photograph 12 - Looking north at span 7, girder 2 at the field splice near floor beam 4. Note: 2 arrested cracks, no propagation across the hole.

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Photograph 13 - Looking north at span 7, girder 2 at the field splice near floor beam 4. Note: 2 arrested cracks, no propagation across the hole.



Photograph 14 - Looking south at span 7, girder 2 outboard near floor beam 4 at field splice. Note: Crack with arrestor holes.



Photograph 15 - Looking west at span 5, stringer 3 connection to floor beam 3 (east face), span 5. Note: 3 1/2-inch long crack along weld on the underside of the stringer connection angles, no change.



Photograph 16 - Looking west at span 7, stringer 1 connection to floor beam 0. Note: No change to the 3 1/2-inch-long crack along weld on the bottom of the stringer connection angles.

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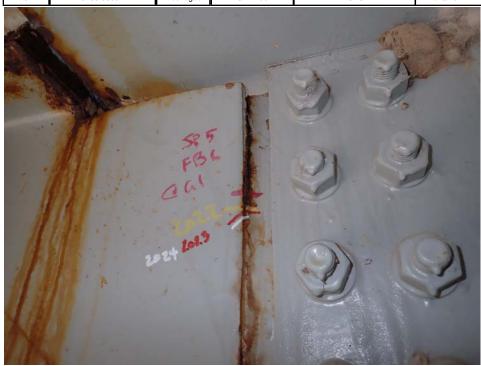


Photograph 17 - Looking west at span 7, stringer 3 connection to floor beam 0. Note: No change to the 1/2-inch and 7/8-inch-long cracks in the weld on the bottom of the stringer connection angles.



Photograph 18 - Looking northwest at span 15, girder 1 outboard at pier 14. Note: Crack in weld for vertical stiffener.

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Photograph 19 - Looking east at span 5, floor beam 6 upper connection to girder 1. Note: 5 1/2-inchlong crack in connection plate weld, 3/8-in growth.



Photograph 20 - Looking northeast at span 6, floor beam 0 lower strut connection to girder 2 at pier 5. Note: Full-length horizontal crack in the weld.



Photograph 21 - Looking east at the span 7, floor beam 0 lower strut connection to girder 2 at pier 6. Note: No change to 1 1/8-inch-long crack in repair plate weld on the west face and no change to the 1/2-inch-long crack on the east face.





Photograph 22 - Looking west at the span 7, floor beam 0 lower strut connection to girder 2 at pier 6. Note: No change to 1 1/8-inch-long crack in repair plate weld on the west face and no change to the 1/2-inch-long crack on the east face.