

Bridge Inspection Report

03538
SH 46-02 LM 8.75
over
Big Slough



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: 03538

Inspection Date:

Facility Carried: SH 46-02 LM 8.75

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/29/2016
(8) STRUCTURE NUMBER	03538	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 46 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02	(3) COUNTY CODE	053
(4) PLACE CODE	00000	A. FRACTURE CRITICAL DETAIL	N
(6) FEATURES INTERSECTED	Big Slough	B. UNDERWATER INSPECTION	N
(7) FACILITY CARRIED	SH 46-02 LM 8.75	C. OTHER SPECIAL	Y 24 07/19/2017
(9) LOCATION	1.0 Mi N SalineRvr-JenkFr	CONDITION	
(11) MILEPOINT	8.750	(58) DECK	6
(12) BASE HIGHWAY NETWORK	0	(59) SUPERSTRUCTURE	6
(13A) LRS INVENTORY ROUTE	0000000000	(60) SUBSTRUCTURE	7
(13B) SUBROUTE NUMBER	00	(61) CHANNEL & CHANNEL PROTECTION	6
(16) LATITUDE	34.22387059426831	(62) CULVERT	N
(17) LONGITUDE	-92.53883926802212	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	2
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	60.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(66) INVENTORY RATING	36.0
B) TYPE OF DESIGN/CONSTR:	22 - Channel Beam	(70) BRIDGE POSTING	5
(44) STRUCTURE TYPE, APPROACH SPANS		(41) STRUCTURE OPEN/POSTED/CLOSED	A
A) KIND OF MATERIAL/DESIGN:	0 - Other	APPRAISAL	
B) TYPE OF DESIGN/CONSTR:	00 - Other	(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN	8	(68) DECK GEOMETRY	4
(46) NUMBER OF APPROACH	0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(107) DECK STRUCTURE TYPE	2	(71) WATERWAY ADEQUACY	4
(108A) WEARING SURFACE	6	(72) APPROACH ROADWAY ALIGNMENT	8
(108B) DECK MEMBRANE	0	(36) TRAFFIC SAFETY FEATURE	
(108C) DECK PROTECTION	0	36A) BRIDGE RAILINGS:	0
AGE OF SERVICE		36B) TRANSITIONS:	0
(27) YEAR BUILT	1966	36C) APPROACH GUARDRAIL:	0
(106) YEAR RECONSTRUCTED	0000	36D) APPROACH GUARDRAIL ENDS:	0
(42) TYPE OF SERVICE	ON 1 UNDER 5	(113) SCOUR CRITICAL BRIDGES	3
(28) LANES	ON 02 UNDER 00	SUFFICIENCY RATING	80.5
(29) AVERAGE DAILY TRAFFIC	1700	STATUS	ND
(19) BYPASS DETOUR LENGTH	8	CLASSIFICATION	
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(112) NBIS BRIDGE LENGTH	Y
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
GEOMETRIC DATA		(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(48) LENGTH OF MAX SPAN (ft.)	19.0	(100) STRAHNET HIGHWAY DESIGNATION	0
(49) STRUCTURE LENGTH (ft.)	152.0	(101) PARALLEL STRUCTURE DESIGNATION	N
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 1.0 RIGHT 1.0	(102) DIRECTION OF TRAFFIC	2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	25.9	(103) TEMP STRUCTURE	
(52) DECK WIDTH, OUT-TO-OUT (ft.)	28	(105) FEDERAL LANDS HIGHWAYS	0
(32) APPROACH ROADWAY WIDTH (ft.)	26.9	(110) DESIGNATED NATIONAL NETWORK	0
(33) BRIDGE MEDIAN	0	(20) TOLL	3
(34) SKEW (DEG.)	0	(21) MAINTENANCE RESPONSIBILITY	01
(35) STRUCTURE FLARED	0	(22) OWNER	01
(10) INV RTE, MIN VERT CLEAR (ft.)	99.99	(37) HISTORICAL	5
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	26.9	NAVIGATION DATA	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(38) NAVIGATION CONTROL	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(111) PIER OR ABUTMENT PROTECTION	5
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(39) NAV VERT CLEARANCE (ft.)	0
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
PROPOSED IMPROVEMENTS		(40) NAV HORIZONTAL CLEARANCE (ft.)	0
(75A) TYPE OF WORK PROPOSED	35		
(75B) WORK DONE BY	1		
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	152.0		
(94) BRIDGE IMPROVEMENT COST (\$)	0		
(95) ROADWAY IMPROVEMENT COST (\$)	0		
(96) TOTAL PROJECT COST	190		
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003		
(114) FUTURE ADT	1042		
(115) YEAR OF FUTURE ADT	2028		

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Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	4256	sq. ft.	4256			
<div style="border: 1px solid red; padding: 5px; color: red;">Note: 1.5" of ACHM overlay on deck</div>	Deck: 28' wide x 152' long. Asphalt wearing surface - all spans: Wearing surface is deteriorating with many small potholes and minor-sized transverse and longitudinal cracking along joints of units - large transverse crack/spall at Bent 4 left. Potholing is heaviest on left lane. Cracking - 7 bents at 26' each x 1' wide = 182 sqft. Potholing - 25% of remaining = 988 sqft.						
	510 - Wearing Surfaces	3952	sq. ft.	2782	1157	13	0
	3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)	988			988		
	3220 - Crack (Wearing Surface)	182			169	13	

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Element Inspection

110 - Reinforced Concrete Open Girder/Beam	1- Ben.	1216	ft.	1129	62	25	0
<p>Girders: 8 per span / 19' spans (8 spans) = 152' total (channel beam units).</p> <p>Channel beam units: Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated:</p> <p>Span 1 Unit 2: Left leg at 1/4 point – 1' long. Span 2 Unit 1: Right leg at 50% point – 3' long. Span 3 Unit 1: Right leg at 40% point – 6' long. Span 4 Unit 5: Right leg at 40% point – 2' long. Span 4 Unit 8: Left leg at 1/4 point – 3' long. Span 4 Unit 1: Right leg at 40% point – 2' long. Span 5 Unit 5: Right leg at midspan – 2' long. Span 6 Unit 7: Right leg at 2/3 point – 2' long. Span 7 Unit 1: Right leg at 25% point – 1' long. Span 8 Unit 1: Right leg at 15% point – 1' long. Span 8 Unit 4: Right leg at 2/3 point – 2' long. (25' total)</p> <p>Channel beam units: Cracking and delaminations along bottom of legs at locations indicated:</p> <p>Span 1 Unit 2: Left leg 1/4 point – 2' long. Span 1 Unit 4: Right leg at 95% point– 2' long. Span 2 Unit 3: Right leg at midspan – 1' long. Span 2 Unit 5: Left leg at 1/4 span – 2' long. Span 2 Unit 7: Right leg at 3/4 span – 3' long. Span 4 Unit 2: Left leg at 45% point – 1' long. Span 4 Unit 5: Right leg at 80% point – 1' long. Span 4 Unit 5: Left leg at beginning of span – 2' long. Span 4 Unit 7: Right leg at 1/3 point– 1' long. Span 4 Unit 8: Left leg at 1/4 point – 4' long. Span 4 Unit 8: Left leg at 60% point – 4' long. Span 5 Unit 1: Right leg at 3/4 point – 6' long. Span 5 Unit 4: Right leg at 55% point – 1' long. Span 5 Unit 5: Left leg at 1/3 point – 3' long. Span 5 Unit 5: Right leg at midspan – 5' long. Span 6 Unit 1: Right leg 1/3 point – 1' long. Span 6 Unit 1: Right leg at midspan – 4' long. Span 6 Unit 5: Left leg at 1/3 point – 3' long. Span 6 Unit 5: Left leg at 55% point – 2' long. Span 7 Unit 1: Right leg 2/3 point – 3' long. Span 7 Unit 7: Right leg at 2/3 point – 2' long. Span 8 Unit 1: Right leg at midspan – 1' long. Span 8 Unit 7: Right leg at 1/3 point – 2' long. Span 8 Unit 7: Right leg at 90% point – 2' long. Span 8 Unit 8: Left leg at 45% point – 2' long. Span 8 Unit 8: Left leg at 75% point – 1' long. (62' total)</p>							
1080 - Delamination/Spall/Patched Area		62			62		
1090 - Exposed Rebar		25				25	
215 - Reinforced Concrete Abutment	1- Ben.	72	ft.	72			
Abutments: 36' each / Bents 1 & 9.							

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227 - Reinforced Concrete Pile	1- Ben.	21	each	21			
	Piling: 3 per bent / Bents 2-8. Some very minor abrasion and loss of mortar on surface, especially near waterline.						
234 - Reinforced Concrete Pier Cap	1- Ben.	196	ft.	196			
	Caps: 28' each / Bents 2-8. A few very minor areas of cracking, delamination, and small shallow spalls at various locations on cap surfaces.						
330 - Metal Bridge Railing	1- Ben.	304	ft.	304			
	Railing: 152' each side. Coating: 2.3 square feet \ linear feet of railing. Metal railing with concrete posts.						
515 - Steel Protective Coating		699	sq. ft.	699			

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Maintenance Needs

Date Reported: 7/17/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Channel beam units: Cracking and delaminations along bottom of legs at locations indicated:

- Span 1 Unit 2: Left leg 1/4 point – 2' long.
- Span 1 Unit 4: Right leg at 95% point– 2' long.
- Span 2 Unit 3: Right leg at midspan – 1' long.
- Span 2 Unit 5: Left leg at 1/4 span – 2' long.
- Span 2 Unit 7: Right leg at 3/4 span – 3' long.
- Span 4 Unit 2: Left leg at 45% point – 1' long.
- Span 4 Unit 5: Right leg at 80% point – 1' long.
- Span 4 Unit 5: Left leg at beginning of span – 2' long.
- Span 4 Unit 7: Right leg at 1/3 point– 1' long.
- Span 4 Unit 8: Left leg at 1/4 point – 4' long.
- Span 4 Unit 8: Left leg at 60% point – 4' long.
- Span 5 Unit 1: Right leg at 3/4 point – 6' long.
- Span 5 Unit 4: Right leg at 55% point – 1' long.
- Span 5 Unit 5: Left leg at 1/3 point – 3' long.
- Span 5 Unit 5: Right leg at midspan – 5' long.
- Span 6 Unit 1: Right leg 1/3 point – 1' long.
- Span 6 Unit 1: Right leg at midspan – 4' long.
- Span 6 Unit 5: Left leg at 1/3 point – 3' long.
- Span 6 Unit 5: Left leg at 55% point – 2' long.
- Span 7 Unit 1: Right leg 2/3 point – 3' long.
- Span 7 Unit 7: Right leg at 2/3 point – 2' long.
- Span 8 Unit 1: Right leg at midspan – 1' long.
- Span 8 Unit 7: Right leg at 1/3 point – 2' long.
- Span 8 Unit 7: Right leg at 90% point – 2' long.
- Span 8 Unit 8: Left leg at 45% point – 2' long.
- Span 8 Unit 8: Left leg at 75% point – 1' long. (62' total)

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



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Maintenance Needs



PHOTO 1 Description Span 5 Unit 5 left (delamination)

Stage: Monitor



PHOTO 2 Description Span 6 Unit 5 left (delamination)

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Maintenance Needs

Date Reported: 7/17/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Channel beam units: Spalling with steel exposed (minor section loss) along bottom of legs at locations indicated:

- Span 1 Unit 2: Left leg at 1/4 point – 1' long.
- Span 2 Unit 1: Right leg at 50% point – 3' long.
- Span 3 Unit 1: Right leg at 40% point – 6' long.
- Span 4 Unit 5: Right leg at 40% point – 2' long.
- Span 4 Unit 8: Left leg at 1/4 point – 3' long.
- Span 4 Unit 1: Right leg at 40% point – 2' long.
- Span 5 Unit 5: Right leg at midspan – 2' long.
- Span 6 Unit 7: Right leg at 2/3 point – 2' long.
- Span 7 Unit 1: Right leg at 25% point – 1' long.
- Span 8 Unit 1: Right leg at 15% point – 1' long.
- Span 8 Unit 4: Right leg at 2/3 point – 2' long. (25' total)

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Span 3 Unit 1 right (rebar exposed)

Stage: Monitor



PHOTO 2 Description Span 6 Unit 7 right (rebar exposed)

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Bridge Inspection Report

Maintenance Needs

Date Reported: 6/17/2014 12:00:00 AM

Priority: C - Important

Work Code: N/A

Deficiency Description:

Asphalt wearing surface - all spans: Wearing surface is deteriorating with many small potholes and minor-sized transverse and longitudinal cracking along joints of units - large transverse crack/spall at Bent 4 left. Potholing is heaviest on left lane.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Wearing surface - Spans 6-8
(deterioration)

Stage: Monitor



PHOTO 2 Description Wearing surface - Spans 3-4
(deterioration)

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Maintenance Needs

Stage: Monitor



PHOTO 3 Description Wearing surface - Spans 1-2
(deterioration)