

Bridge Inspection Report

02397

US 79/sec15/L7.21

over

BIG HOG TUSK CREEK

BRIDGE #02397 - SIDE VIEW



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: 02397

Inspection Date:

Facility Carried: US 79/sec15/L7.21

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/21/2016
(8) STRUCTURE NUMBER	02397	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 79 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	01	(3) COUNTY CODE	077
(4) PLACE CODE	44600	A. FRACTURE CRITICAL DETAIL	N
(6) FEATURES INTERSECTED	BIG HOG TUSK CREEK	B. UNDERWATER INSPECTION	N
(7) FACILITY CARRIED	US 79/sec15/L7.21	C. OTHER SPECIAL	N
(9) LOCATION	0.50 MI W OF SH 238	CONDITION	
(11) MILEPOINT	7.210	(58) DECK	7
(12) BASE HIGHWAY NETWORK	1	(59) SUPERSTRUCTURE	5
(13A) LRS INVENTORY ROUTE	0000079150	(60) SUBSTRUCTURE	7
(13B) SUBROUTE NUMBER	00	(61) CHANNEL & CHANNEL PROTECTION	6
(16) LATITUDE	34.776276	(62) CULVERT	N
(17) LONGITUDE	-90.997261	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	4
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	54.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	3 - Steel	(66) INVENTORY RATING	33.0
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder	(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	5
(45) NUMBER OF SPANS IN MAIN	3	(68) DECK GEOMETRY	5
(46) NUMBER OF APPROACH	0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(107) DECK STRUCTURE TYPE	1	(71) WATERWAY ADEQUACY	8
(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	1952	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	5
(28) LANES	ON 02 UNDER 00	SUFFICIENCY RATING	0
(29) AVERAGE DAILY TRAFFIC	820	STATUS	66.7
(19) BYPASS DETOUR LENGTH	21	CLASSIFICATION	
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(112) NBIS BRIDGE LENGTH	Y
(109) AVERAGE DAILY TRUCK TRAFFIC	14	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
GEOMETRIC DATA		(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(48) LENGTH OF MAX SPAN (ft.)	30	(100) STRAHNET HIGHWAY DESIGNATION	0
(49) STRUCTURE LENGTH (ft.)	92	(101) PARALLEL STRUCTURE DESIGNATION	N
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 1.5 RIGHT 1.5	(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.)	31.5	(105) FEDERAL LANDS HIGHWAYS	0
(32) APPROACH ROADWAY WIDTH (ft.)	35.1	(110) DESIGNATED NATIONAL NETWORK	1
(33) BRIDGE MEDIAN	0	(20) TOLL	3
(34) SKEW (DEG.)	0	(21) MAINTENANCE RESPONSIBILITY	01
(35) STRUCTURE FLARED	0	(10) INV RTE, MIN VERT CLEAR (ft.)	99.99
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	28.9	(75A) TYPE OF WORK PROPOSED	31
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(75B) WORK DONE BY	1
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	119.0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(94) BRIDGE IMPROVEMENT COST (\$)	0
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(95) ROADWAY IMPROVEMENT COST (\$)	235
PROPOSED IMPROVEMENTS		(96) TOTAL PROJECT COST	541
(75A) TYPE OF WORK PROPOSED	31	(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003
(75B) WORK DONE BY	1	(114) FUTURE ADT	934
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	119.0	(115) YEAR OF FUTURE ADT	2028
(94) BRIDGE IMPROVEMENT COST (\$)	0	NAVIGATION DATA	
(95) ROADWAY IMPROVEMENT COST (\$)	235	(38) NAVIGATION CONTROL	0
(96) TOTAL PROJECT COST	541	(111) PIER OR ABUTMENT PROTECTION	1
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(39) NAV VERT CLEARANCE (ft.)	0
(114) FUTURE ADT	934	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
(115) YEAR OF FUTURE ADT	2028	(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	2898	sq. ft.	2767	131	0	0
	RIGHT & LEFT GUTTERS HAVE DIRT, DEBRIS & VEGETATION GROWING IN THEM. SPAN #1 LEFT CURB HAS 6" POPOFF WITH EXPOSED REBAR. SOFFIT HAS HAIRLINES TRANSVERSE CRACKS SPACED 4' APART 2 CRACKS EACH SPAN HAS LIGHT EFFLORESCENCE. Wearing surface has transverse cracks at all bents and 5 longitudinal cracks each span.						
1120 - Efflorescence/Rust Staining		131			131		
510 - Wearing Surfaces		2392	sq. ft.	1828	564	0	0
3220 - Crack (Wearing Surface)		564			564		
107 - Steel Open Girder/Beam	1- Ben.	368	ft.	267	89	10	2
	GIRDER #1 & 4 ARE CORRODED WITH LAMINATIONS ON WEBS AT EXPANSION DAM HAUNCHES WITH UP TO 50% SECTION LOSS SPAN #3 GIRDER #1 AT BENT #3 RIGHT LOWER FLANGE HAS UP TO 50% SECTION LOSS FOR 2'. SPAN #3 GIRDER #4 AT BENT #3 LEFT LOWER FLANGE FOR 2' UP TO 35% SECTION LOSS. SPAN #3 GIRDER #4 AT BENT #4 LEFT LOWER FLANGE FOR 1' ON END HAS UP TO 90% SECTION LOSS MIGRATING INTO WEB WITH UP TO 50%SECTION LOSS. SPAN #3 GIRDER #1AT BENT #4 HAS AREA OF 100% SECTION LOSS TO LOWER FLANGE AT BEARING AND 1' AREA OF SECTION LOSS TO WEB AT LOWER FLANG WITH SLIGHT DOWNWARD DEFORMATION OF GIRDER. WEB AT HAUNCH ALSO HAS AREA OF 100%SECTION LOSS. 2' OF BEAM IS EFFECTED BY THIS CORROSION. DIAPHRAGM AT THIS LOCATION ALSO HAS 100% SECTION LOSS. OUTSIDE GIRDERS AT HAUNCHES ARE DEFORMING / BOWING OUT DUE TO PACK RUST AT HAUNCHES. Paint has surface rust full length with 20% of beam being bare steel.						
1000 - Corrosion		85			73	10	2
1900 - Distortion		16			16		
515 - Steel Protective Coating		2510	sq. ft.	0	13	1870	627
3440 - Effectiveness (Steel Protective Coatings)		2510			13	1870	627
215 - Reinforced Concrete Abutment	1- Ben.	74	ft.	74			
227 - Reinforced Concrete Pile	1- Ben.	8	each	8			
234 - Reinforced Concrete Pier Cap	1- Ben.	50	ft.	50			
305 - Assembly Joint without Seal	1- Ben.	126	ft.	110	0	16	0
	Steel has surface rust with little to paint left. Joint steel under bridge has corrosion with laminations with up to 10% section loss on 2' of each end, center has only surface rust little to no section loss.						
2370 - Metal Deterioration or Damage		16				16	

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515 - Steel Protective Coating		378	sq. ft.	0	16	0	362
3440 - Effectiveness (Steel Protective Coatings)		378			16		362
311 - Movable Bearing	1- Ben.	12	each	0	0	12	0
MOVEABLE BEARINGS ARE CORRODED WITH LAMINATIONS WITH UP TO 20% SECTION LOSS. Bearings have no paint left on them.							
1000 - Corrosion		12				12	
515 - Steel Protective Coating		36	sq. ft.	0	0	0	36
3440 - Effectiveness (Steel Protective Coatings)		36					36
313 - Fixed Bearing	1- Ben.	12	each	0	6	6	0
FIXED BEARINGS ARE CORRODED WITH LAMINATIONS WITH UP TO 10% SECTION LOSS. Bearings have no paint left on them.							
1000 - Corrosion		12			6	6	
515 - Steel Protective Coating		36	sq. ft.	0	0	0	36
3440 - Effectiveness (Steel Protective Coatings)		36					36
330 - Metal Bridge Railing	1- Ben.	184	ft.	182	2	0	0
Left rail is is corroded with little to no paint left no section loss. Right rail has 2' long collision area near abutment 2.							
1900 - Distortion		2			2		
515 - Steel Protective Coating		552	sq. ft.	276	0	276	0
3440 - Effectiveness (Steel Protective Coatings)		276				276	

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Pictures

BRIDGE #02397 - TOP VIEW



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Bridge Inspection Report

Maintenance Needs

Date Reported: 07/21/2016

Priority: B - Pressing; 6 month completion goal

Work Code: N/A

Deficiency Description:

SPAN #3 GIRDER #1 AT BENT #4 HAS AREA OF 100% SECTION LOSS TO LOWER FLANGE AT BEARING AND 1' AREA OF SECTION LOSS TO WEB AT LOWER FLANGE WITH SLIGHT DOWNWARD DEFORMATION OF GIRDER. WEB AT HAUNCH ALSO HAS AREA OF 100% SECTION LOSS. 2' OF BEAM IS AFFECTED BY THIS CORROSION.

SPAN #3 GIRDER #4 AT BENT #4 LEFT LOWER FLANGE FOR 1' ON END HAS UP TO 90% SECTION LOSS MIGRATING INTO WEB WITH UP TO 50% SECTION LOSS.

Work Description:

Tee - splice On span 3 girder 1 and 4 at bent 4. and painted

Date Repairs Completed: 12/02/2016

Maintenance Comments:

Stage: Open



PHOTO 1 Description SPAN #3 GIRDER #1 AT BENT #4 HAS AREA OF 100% SECTION LOSS TO LOWER FLANGE AT BEARING AND 1' AREA OF SECTION LOSS TO WEB AT LOWER FLANG WITH SLIGHT DOWNWARD DEFORMATION OF GIRDER. WEB AT HAUNCH ALSO HAS AREA OF 100%SECTION LOSS. 2' OF BEAM IS EFFECTED BY THIS CORROSION.

Stage: Open



PHOTO 2 Description SPAN #3 GIRDER #4 AT BENT #4 LEFT LOWER FLANGE FOR 1' ON END HAS UP TO 90% SECTION LOSS MIGRATING INTO WEB WITH UP TO 50%SECTION LOSS.

Inspector:

Structure Number: 02397

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/30/2012 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

GIRDER #1 & 4 ARE CORRODED WITH LAMINATIONS ON WEBS AT EXPANSION DAM HAUNCHES WITH UP TO 50% SECTION LOSS.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Typical girder ends.

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/23/2014 12:00:00 AM

Priority: C - Important

Work Code: N/A

Deficiency Description:

MOVEABLE BEARINGS ARE CORRODED WITH LAMINATIONS WITH UP TO 20% SECTION LOSS.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Typical bearings.

Inspector:

Structure Number: 02397

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/23/2014 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

DECK RIGHT & LEFT GUTTERS HAVE DIRT, DEBRIS & VEGETATION GROWING IN THEM.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Typical vegetation in gutters.

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Maintenance Needs

Date Reported: 7/23/2014 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

VEGETATION IS GROWING UNDER & BESIDE BRIDGE IN SPAN #1 & 3 RIGHT & LEFT SIDE.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Typical vegetation.