

Bridge Inspection Report

05709
US 70 @ I-440
over
I 440 Log 9.69



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION				INSPECTIONS			
(1) STATE CODE	056 - Arkansas			(90) INSPECTION DATE	07/07/2015		
(8) STRUCTURE NUMBER	05709			(91) DESIGNATED INSPECTION FREQUENCY	24		
(5) INV. ROUTE (ON/UNDER)	1	2	1 70 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE		
(2) HIGHWAY AGENCY	06	(3) COUNTY CODE	119	A. FRACTURE CRITICAL DETAIL	N		
(4) PLACE CODE	47940			B. UNDERWATER INSPECTION	N		
(6) FEATURES INTERSECTED	I 440 Log 9.69			C. OTHER SPECIAL	N		
(7) FACILITY CARRIED	US 70 @ I-440			CONDITION			
(9) LOCATION	1.8 W OF GALLOWAY (I-6)			(58) DECK	7		
(11) MILEPOINT	6.730	(12) BASE HIGHWAY NETWORK	0	(59) SUPERSTRUCTURE	7	(60) SUBSTRUCTURE	6
(13A) LRS INVENTORY ROUTE	0000000000	(13B) SUBROUTE NUMBER	00	(61) CHANNEL & CHANNEL PROTECTION	N	(62) CULVERT	N
(16) LATITUDE	34.77092	(17) LONGITUDE	-92.16235	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	48.0		
(43) STRUCTURE TYPE, MAIN				(65) METHOD USED TO DETERMINE INVENTORY RATING	1		
A) KIND OF MATERIAL/DESIGN:	4 - Steel continuous			(66) INVENTORY RATING	28.0		
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	6		
(45) NUMBER OF SPANS IN MAIN	4	(46) NUMBER OF APPROACH	0	(68) DECK GEOMETRY	9		
(107) DECK STRUCTURE TYPE	1	(108A) WEARING SURFACE	1	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	6		
(108B) DECK MEMBRANE	0	(108C) DECK PROTECTION	0	(71) WATERWAY ADEQUACY	N		
AGE OF SERVICE				(72) APPROACH ROADWAY ALIGNMENT	8		
(27) YEAR BUILT	1977	(106) YEAR RECONSTRUCTED	0000	(36) TRAFFIC SAFETY FEATURE			
(42) TYPE OF SERVICE	ON 6	UNDER	1	36A) BRIDGE RAILINGS:	1		
(28) LANES	ON 02	UNDER	08	36B) TRANSITIONS:	0		
(29) AVERAGE DAILY TRAFFIC	5200	(19) BYPASS DETOUR LENGTH	1	36C) APPROACH GUARDRAIL:	0		
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014			36D) APPROACH GUARDRAIL ENDS:	0		
(109) AVERAGE DAILY TRUCK TRAFFIC	1			(113) SCOUR CRITICAL BRIDGES	N		
GEOMETRIC DATA				SUFFICIENCY RATING	0	STATUS	91.5
(48) LENGTH OF MAX SPAN (ft.)	94	(49) STRUCTURE LENGTH (ft.)	274	CLASSIFICATION			
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0	RIGHT	0	(112) NBIS BRIDGE LENGTH	Y		
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	67.9			(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1		
(52) DECK WIDTH, OUT-TO-OUT (ft.)	71			(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	16		
(32) APPROACH ROADWAY WIDTH (ft.)	67.9			(100) STRAHNET HIGHWAY DESIGNATION	0		
(33) BRIDGE MEDIAN	0	(34) SKEW (DEG.)	15	(101) PARALLEL STRUCTURE DESIGNATION	N		
(35) STRUCTURE FLARED	0	(10) INV RTE, MIN VERT CLEAR (ft.)	99.99	(102) DIRECTION OF TRAFFIC	2		
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	69.9			(103) TEMP STRUCTURE			
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99			(105) FEDERAL LANDS HIGHWAYS	0		
(54) VERTICAL UNDER CLEARANCE (ft.)	H		16.75	(110) DESIGNATED NATIONAL NETWORK	1		
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	H		17.7	(20) TOLL	3		
(56) MIN LATERAL UNDER CLEARANCE (ft.)	9			(21) MAINTENANCE RESPONSIBILITY	01		
PROPOSED IMPROVEMENTS				(22) OWNER	01		
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY			(37) HISTORICAL	5		
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0			NAVIGATION DATA			
(94) BRIDGE IMPROVEMENT COST (\$)	0			(38) NAVIGATION CONTROL	N		
(95) ROADWAY IMPROVEMENT COST (\$)	0			(111) PIER OR ABUTMENT PROTECTION	1		
(96) TOTAL PROJECT COST	0			(39) NAV VERT CLEARANCE (ft.)	0		
(97) YEAR OF IMPROVEMENT COST ESTIMATE				(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0		
(114) FUTURE ADT	7129	(115) YEAR OF FUTURE ADT	2028	(40) NAV HORIZONTAL CLEARANCE (ft.)	0		

Inspector:

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National Bridge Inventory

UNDER RECORD A

IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 70 @ I-440
(3) COUNTY CODE	119	(8) STRUCTURE NUMBER	05709
(4) PLACE CODE	47940	(9) LOCATION	1.8 W OF GALLOWAY (I-6)
(5) INV. ROUTE (ON/UNDER)	A 1 1 440 2	(11) MILEPOINT	9.690 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	I 440 Log 9.69	(13A) LRS INVENTORY ROUTE	0000440010 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	34. (17) LONGITUDE -92.1623333333333
			7708333333333

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous
 B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	1	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 6 UNDER 1
(28) LANES	ON 08 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	24000		

GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.8	(48) LENGTH OF MAXIMUM SPAN	94	(49) STRUCTURE LENGTH	274
(47) TOTAL HORIZONTAL CLEARANCE	74.7				

CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

UNDER RECORD B

IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 70 @ I-440
(3) COUNTY CODE	119	(8) STRUCTURE NUMBER	05709
(4) PLACE CODE	47940	(9) LOCATION	1.8 W OF GALLOWAY (I-6)
(5) INV. ROUTE (ON/UNDER)	B 1 1 440 4	(11) MILEPOINT	9.690 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	I 440 Log 9.69	(13A) LRS INVENTORY ROUTE	0000440010 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	34. (17) LONGITUDE -92.1623333333333
			7708333333333

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous
 B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	1	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 6 UNDER 1
(28) LANES	ON 04 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	24000		

GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.8	(48) LENGTH OF MAXIMUM SPAN	94	(49) STRUCTURE LENGTH	274
(47) TOTAL HORIZONTAL CLEARANCE	78.7				

CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

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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.	19393	sq. ft.	17693	1700	0	0
	Random transverse and longitudinal cracks in all spans. 0.035 inch avg.						
1130 - Cracking (RC and Other)		1700			1700		
107 - Steel Open Girder/Beam	1- Ben.	2710	ft.	2683	27	0	0
	Active rust on beam ends at bent 1 Span 2 beam 10 has a small dent in the bottom flange over westbound traffic in the center lane. Span 3 beams 1,2,4,6,8 & 10 have traffic impact damage over the center and right eastbound lanes. Beams 1,2,4&6 have some gouges in the bottom flanges at these impact areas. Beam 2 is misaligned approx. 2 inches due to impact.						
1000 - Corrosion		20			20		
7000 - Damage		7			7		
515 - Steel Protective Coating		23654	sq. ft.	90	0	23564	0
3410 - Chalking (Steel Protective Coatings)		23564				23564	
205 - Reinforced Concrete Column	1- Ben.	9	each	1	0	8	0
	All three columns at bent 2 have vertical cracks. Bent 3, columns 1&3 are cracked. Bent 4, all three columns are cracked.						
1130 - Cracking (RC and Other)		8				8	
215 - Reinforced Concrete Abutment	1- Ben.	201	ft.	0	201	0	0
	The face of the beam seat has horizontal cracking along the entire face. Bent 5 is similar.						
1130 - Cracking (RC and Other)		201			201		
234 - Reinforced Concrete Pier Cap	1- Ben.	210	ft.	204	6	0	0
	The left ends of the caps of Bents 3&4 are cracked.						
1130 - Cracking (RC and Other)		6			6		
302 - Compression Joint Seal	1- Ben.	142	ft.	71	0	0	71
	The seal has fallen out at bent 1.						
2330 - Seal Damage		71					71
310 - Elastomeric Bearing	1- Ben.	50	each	42	8	0	0
	Five of the bearing plates have active rust at bent 1. Bent 5, beams 1,5&6, the bearing pads have moved.						
1000 - Corrosion		5			5		
2210 - Movement		3			3		
321 - Reinforced Concrete Approach Slab	1- Ben.	3504	sq. ft.	3404	100	0	0
	Both approach slabs are cracked.						
1130 - Cracking (RC and Other)		100			100		
331 - Reinforced Concrete Bridge Railing	1- Ben.	547	ft.	547			

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Pictures



No overlay on the bridge deck.



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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/11/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Columns at bents 2, 3 and 4 have full height vertical cracks up to 1/16 inch wide and on 8 inch centers.

Photo

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor

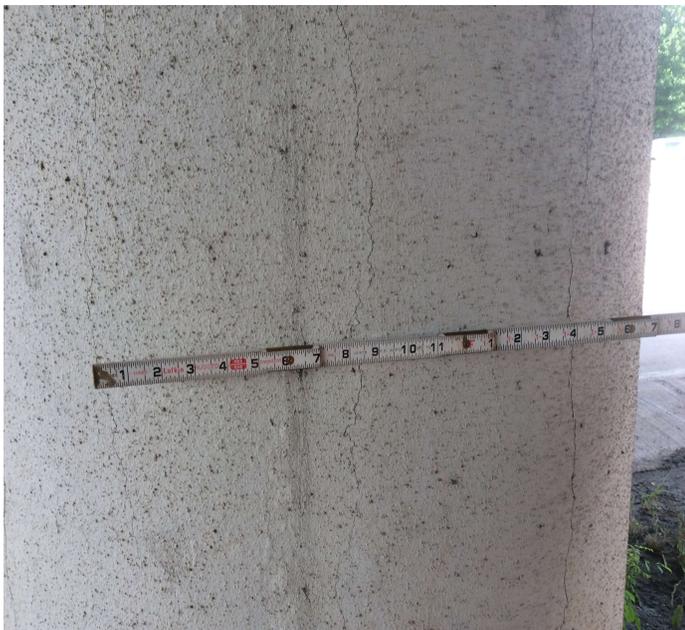


PHOTO 1 Description Bent 2, column 2. Vertical cracks. Common appearance to several columns.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/11/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Joint seal at bent 1 abutment has fallen out and is laying on beam ends and bearings allowing dirt debris to build-up causing sole plate to rust.

Photo

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Bent 1, the joint seal is out causing debris to build up on the beam ends and active rust to form on the beam ends.

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Span 3 on girders 1, 2, 4, 6, 8 and 10 have traffic impact and are bent out of plane ½ to 1 ½ inch. Photo

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Traffic impact to beams 1&2 of span 3.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Deck has unsealed cracks up to 0.040 inch and the top of abutment 1 has a large spall between road iron.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Right approach guardrail at abutment 1 has traffic damage.

Work Description:

Date Repairs Completed:

Maintenance Comments:
