

# Bridge Inspection Report

**B3877**  
**I 40-SEC 51, EB LN**  
**over**  
**SH 75-SEC 1**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: B3877

Inspection Date:

Facility Carried: I 40-SEC 51, EB LN

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	02/28/2017
(8) STRUCTURE NUMBER	B3877	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 1 1 40 2	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY 01	(3) COUNTY CODE 123	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	SH 75-SEC 1	C. OTHER SPECIAL	Y 24 02/01/2016
(7) FACILITY CARRIED	I 40-SEC 51, EB LN	<b>CONDITION</b>	
(9) LOCATION	3.65 MI W OF SH 149	(58) DECK	6
(11) MILEPOINT 256.240	(12) BASE HIGHWAY NETWORK 1	(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 7
(13A) LRS INVENTORY ROUTE 0000040510	(13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION	N (62) CULVERT N
(16) LATITUDE 35.118408	(17) LONGITUDE -90.548264	<b>LOAD RATING AND POSTING</b>	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	6
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
<b>STRUCTURE TYPE AND MATERIAL</b>		(64) OPERATING RATING	60.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(66) INVENTORY RATING	36.0
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		<b>APPRAISAL</b>	
B) TYPE OF DESIGN/CONSTR: 00 - Other		(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN 3	(46) NUMBER OF APPROACH 0	(68) DECK GEOMETRY	6
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	5
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0	(71) WATERWAY ADEQUACY	N
<b>AGE OF SERVICE</b>		(72) APPROACH ROADWAY ALIGNMENT	8
(27) YEAR BUILT 1965	(106) YEAR RECONSTRUCTED 0000	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE ON 6 UNDER 1		36A) BRIDGE RAILINGS:	0
(28) LANES ON 02 UNDER 02		36B) TRANSITIONS:	1
(29) AVERAGE DAILY TRAFFIC 14000	(19) BYPASS DETOUR LENGTH 1	36C) APPROACH GUARDRAIL:	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		36D) APPROACH GUARDRAIL ENDS:	1
(109) AVERAGE DAILY TRUCK TRAFFIC 56		(113) SCOUR CRITICAL BRIDGES	N
<b>GEOMETRIC DATA</b>		SUFFICIENCY RATING	0 STATUS 95.7
(48) LENGTH OF MAX SPAN (ft.) 47	(49) STRUCTURE LENGTH (ft.) 137	<b>CLASSIFICATION</b>	
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.7 RIGHT 0.7		(112) NBIS BRIDGE LENGTH	Y
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	38.7	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(52) DECK WIDTH, OUT-TO-OUT (ft.)	42.2	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	01
(32) APPROACH ROADWAY WIDTH (ft.)	38.1	(100) STRAHNET HIGHWAY DESIGNATION	1
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 30	(101) PARALLEL STRUCTURE DESIGNATION	R
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	(102) DIRECTION OF TRAFFIC	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	38.7	(103) TEMP STRUCTURE	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(105) FEDERAL LANDS HIGHWAYS	0
(54) VERTICAL UNDER CLEARANCE (ft.)	H 14.59	(110) DESIGNATED NATIONAL NETWORK	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	H 7.8	(20) TOLL	3
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(21) MAINTENANCE RESPONSIBILITY	01
<b>PROPOSED IMPROVEMENTS</b>		(22) OWNER	01
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(37) HISTORICAL	5
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0	<b>NAVIGATION DATA</b>	
(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 19000	(115) YEAR OF FUTURE ADT 2034	(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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National Bridge Inventory

UNDER RECORD 2

IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	I 40-SEC 51, EB LN
(3) COUNTY CODE	123	(8) STRUCTURE NUMBER	B3877
(4) PLACE CODE	00000	(9) LOCATION	3.65 MI W OF SH 149
(5) INV. ROUTE (ON/UNDER)	2 3 1 75 0	(11) MILEPOINT	0.080 (12) BASE HIGHWAY NETWORK 0
(6) FEATURES INTERSECTED	SH 75-SEC 1	(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	35.11833333333333 (17) LONGITUDE -90.54833333333333

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 3 - Steel  
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	0	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1965	(42) TYPE OF SERVICE	ON 6 UNDER 1
(28) LANES	ON 02 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	52
(29) AVERAGE DAILY TRAFFIC	680		

GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	14.8	(48) LENGTH OF MAXIMUM SPAN	47	(49) STRUCTURE LENGTH	137
(47) TOTAL HORIZONTAL CLEARANCE	43.9				

CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	2
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(101) PARALLEL STRUCTURE DESIGNATION	R	(110) DESIGNATED NATIONAL NETWORK	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.	5494	sq. ft.	3570	1924	0	0
	ALL SPANS HAVE OPEN AND SEALED TRANSVERSE CRACKS. SPAN #1 HAS A LARGE AREA OF HEAVY SCALING. SPAN #3 HAS SEVERAL LARGE REPAIRS AND AREAS OF SMALL SPALLS ON UNDERSIDE AT DECK DRAINS SPAN #3 DECK DRAIN HAS EXPOSED REBAR. SOFFIT OF DECK HAS TRANSVERSE AND LONGITUDINAL CRACKS ALL SPANS, SOME WITH EFFLORESCENCE. DECK HAS SOME MINOR SPALLING AT ABUTMENT #1 JOINT AND AT BENT #3 ROAD IRON.						
1080 - Delamination/Spall/Patched Area		50			50		
1090 - Exposed Rebar		2			2		
1130 - Cracking (RC and Other)		1832			1832		
1190 - Abrasion/Wear (PSC/RC)		40			40		
107 - Steel Open Girder/Beam	1- Ben.	945	ft.	875	70	0	0
	MINOR IMPACT DAMAGE NORTH BOUND LANES. SPAN #2, ALL GIRDERS HAVE MINOR SCRATCHES WITH 3RD. DIAPHRAGM BETWEEN GIRDERS 5 AND 6 AND 6 AND 7 BENT. ALL GIRDER ENDS HAVE MINOR CORROSION WITH LAMINATIONS AND MINOR SECTION LOSS AT HAUNCH AREA. BENT #2 SPAN #2 GIRDER #5 HAS CORROSION WITH 20%+- SECTION LOSS AT HAUNCH AREA..						
1000 - Corrosion		42			42		
7000 - Damage		28			28		
515 - Steel Protective Coating		5737	sq. ft.	0	5653	84	0
3440 - Effectiveness (Steel Protective Coatings)		5723			5639	84	
7000 - Damage		14			14		
205 - Reinforced Concrete Column	1- Ben.	4	each	3	1	0	0
	BENT #2 RIGHT COLUMN HAS 1' X 2' SPALL ON FRONT FACE, LEFT CORNER WITH NO EXPOSED REBAR.						
1080 - Delamination/Spall/Patched Area		1			1		
215 - Reinforced Concrete Abutment	1- Ben.	106	ft.	106			
	BOTH ABUTMENTS HAVE SEVERAL VERTICAL CRACKS IN ABUTMENT BACKWALLS.						
234 - Reinforced Concrete Pier Cap	1- Ben.	86	ft.	86			
305 - Assembly Joint without Seal	1- Ben.	154	ft.	154			
515 - Steel Protective Coating		462	sq. ft.	0	0	0	462
3440 - Effectiveness (Steel Protective Coatings)		462					462
311 - Movable Bearing	1- Ben.	21	each	21			
515 - Steel Protective Coating		42	sq. ft.	42			

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313 - Fixed Bearing	1- Ben.	21	each	0	21	0	0
ABUTMENT #1 GIRDER #5 BEARING HAS A GAP BETWEEN SOLE PLATE AND MASONRY PLATE WITH VERTICAL MOVEMENT UNDER LOAD. ALL BEARINGS HAVE PACK RUST WITH LESS THAN 10% SECTION LOSS.							
1000 - Corrosion		20			20		
2210 - Movement		1			1		
515 - Steel Protective Coating		42	sq. ft.	0	21	0	21
3440 - Effectiveness (Steel Protective Coatings)		42			21		21
321 - Reinforced Concrete Approach Slab	1- Ben.	1680	sq. ft.	1680			
APPROACH SLABS ARE COVERED IN ASPHALT ALLOWING NO VISUAL OF SLABS. ASPHALT OVERLAY HAS SEVERAL LARGE SPALLS AND REPAIRS							
521 - Concrete Protective Coating		1680	sq. ft.	0	0	1680	0
3540 - Effectiveness (Concrete Protective Coatings)		1680				1680	
331 - Reinforced Concrete Bridge Railing	1- Ben.	275	ft.	163	112	0	0
CONCRETE PORTION OF BRIDGE RAIL HAS VERTICAL CRACKS AND AREAS OF EXPOSED REBAR DUE TO POOR COVERAGE.							
1090 - Exposed Rebar		20			20		
1130 - Cracking (RC and Other)		92			92		
333 - Other Bridge Railing	1- Ben.	275	ft.	275			