

# Bridge Inspection Report

**A6878**  
**I-540 SB Lanes**  
**over**  
**Grand Avenue-Sebastian**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

## TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	8
ELEMENTS	10
PICTURES	12
SKETCHES	13

Inspector:

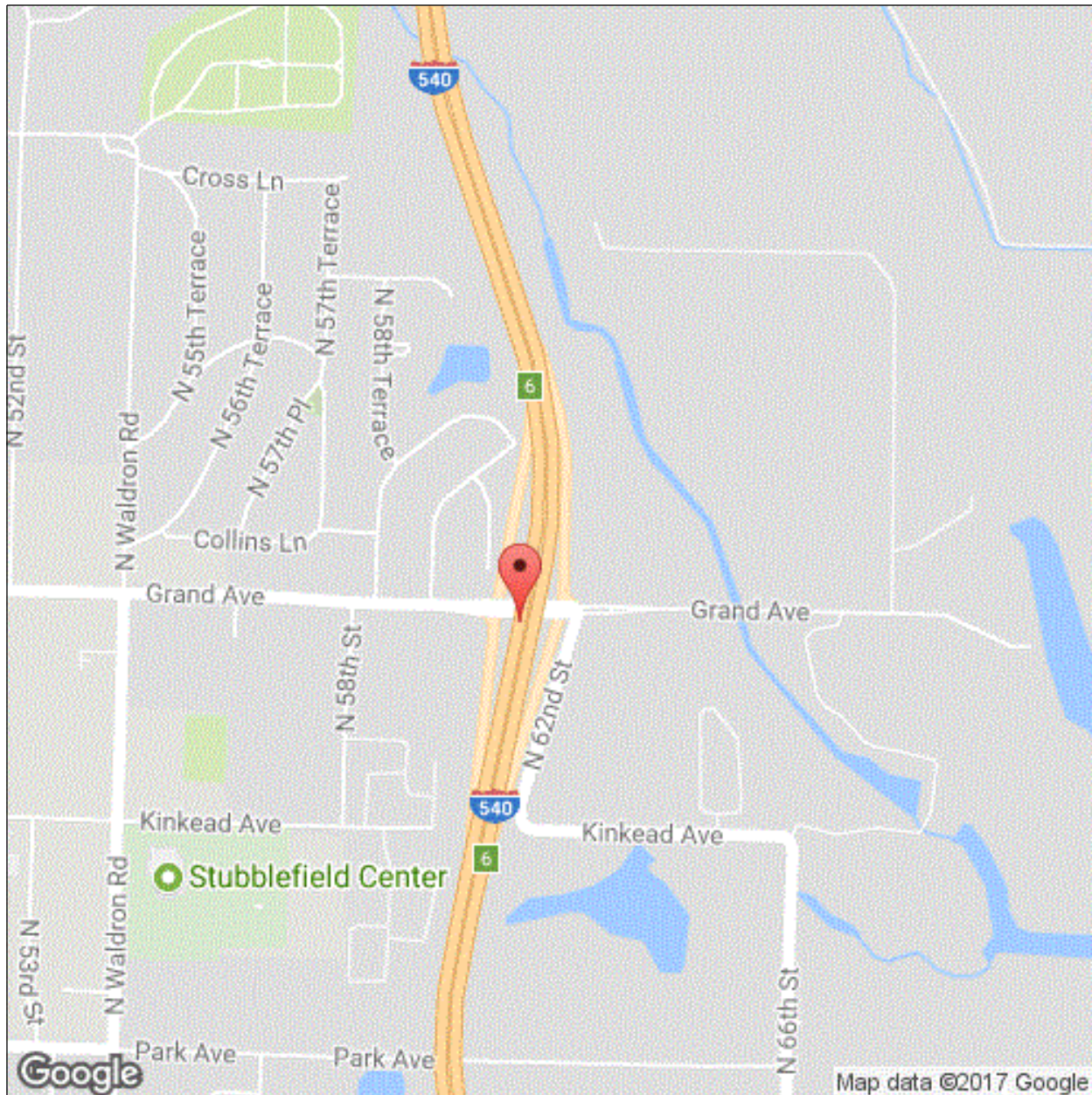
Structure Number: A6878

Inspection Date:

Facility Carried: I-540 SB Lanes

## Bridge Inspection Report

### Location Map



Latitude: 35.38484

Longitude: -94.36434



Inspector:

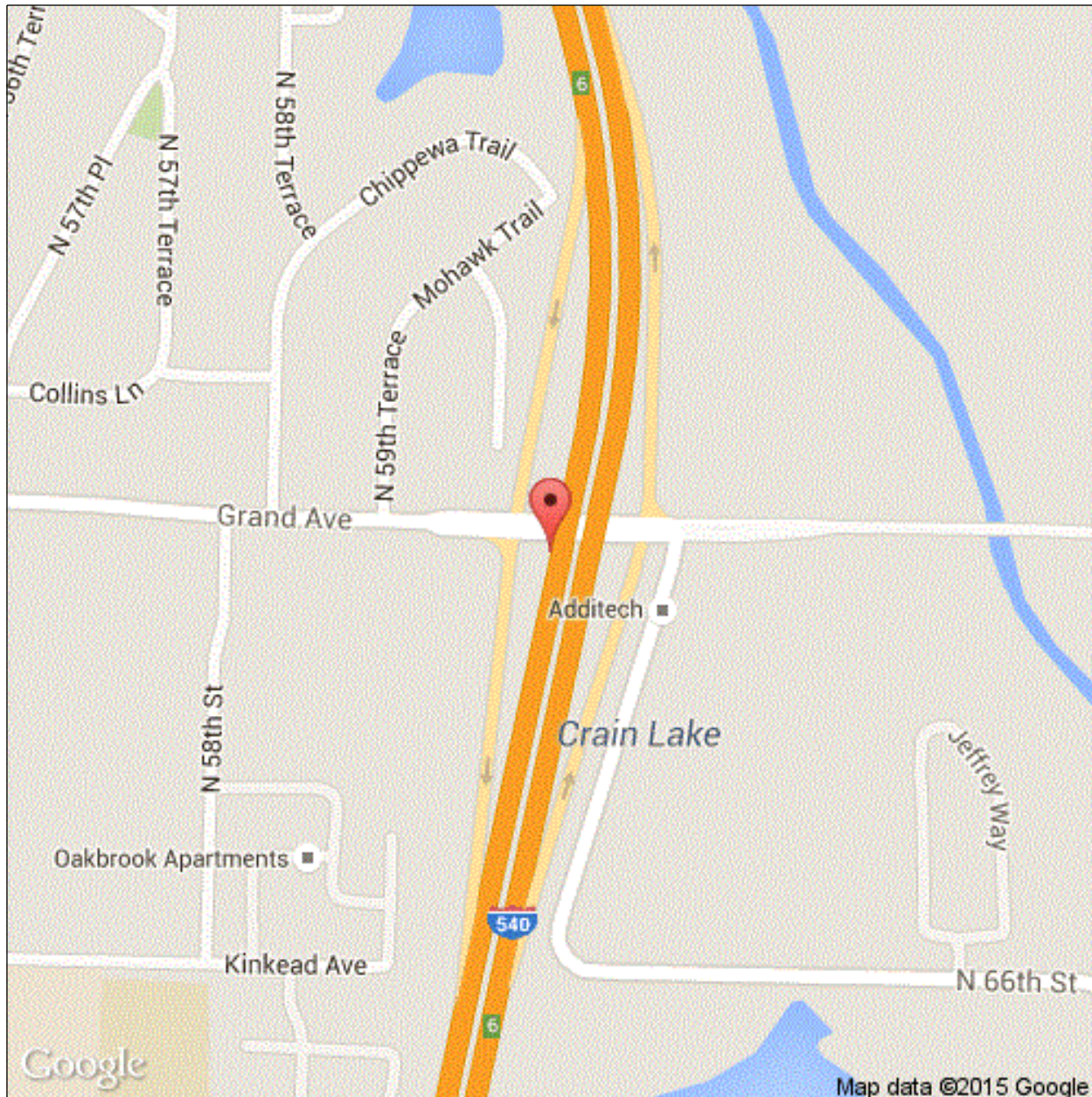
Structure Number: A6878

Inspection Date:

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## Bridge Inspection Report

### Location Map



Latitude: 35.38484

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Inspector:

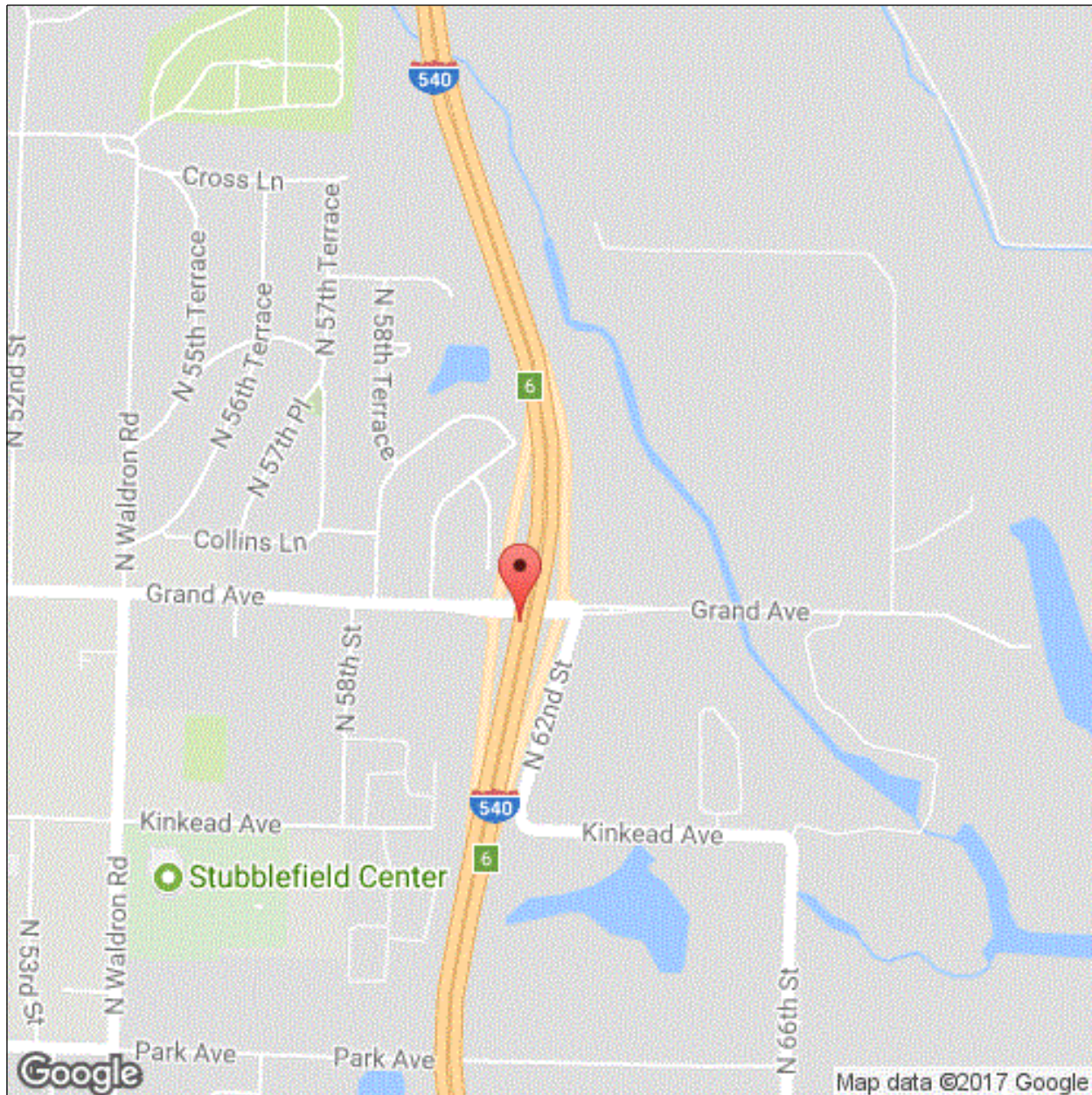
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### Location Map



Latitude: 35.38484

Longitude: -94.36434

Inspector:

Structure Number: A6878

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## Bridge Inspection Report

### Executive Summary

07/31/2017 - JCJ & JML - Minimum vertical underclearances are actual field measured this inspection.

07/31/2017 - JCJ & JML - The driving surface of the deck has a new polymer overlay that is approximately 0.25" thick that has been applied since the last inspection.

Inspector:

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Inspection Date:

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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/31/2017
(8) STRUCTURE NUMBER	A6878	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 1 1 540 3	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04 (3) COUNTY CODE 131	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	24060	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Grand Avenue-Sebastian	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	I-540 SB Lanes		
(9) LOCATION	6.24 Mi So Jct I40-11	CONDITION	
(11) MILEPOINT 8.510	(12) BASE HIGHWAY NETWORK 1	(58) DECK	7
(13A) LRS INVENTORY ROUTE 0000540010	(13B) SUBROUTE NUMBER 00	(59) SUPERSTRUCTURE 8	(60) SUBSTRUCTURE 7
(16) LATITUDE 35.38484	(17) LONGITUDE -94.36434	(61) CHANNEL & CHANNEL PROTECTION	N (62) CULVERT N
(98A) BORDER BRIDGE CODE		LOAD RATING AND POSTING	
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(31) DESIGN LOAD	6
STRUCTURE TYPE AND MATERIAL		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(43) STRUCTURE TYPE, MAIN		(64) OPERATING RATING	60.0
A) KIND OF MATERIAL/DESIGN:	4 - Steel continuous	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder	(66) INVENTORY RATING	36.0
(44) STRUCTURE TYPE, APPROACH SPANS		(70) BRIDGE POSTING	5
A) KIND OF MATERIAL/DESIGN:	0 - Other	(41) STRUCTURE OPEN/POSTED/CLOSED	A
B) TYPE OF DESIGN/CONSTR:	00 - Other	APPRAISAL	
(45) NUMBER OF SPANS IN MAIN 4	(46) NUMBER OF APPROACH 0	(67) STRUCTURAL EVALUATION	7
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 5	(68) DECK GEOMETRY	5
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 1	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	4
AGE OF SERVICE		(71) WATERWAY ADEQUACY	N
(27) YEAR BUILT 2013	(106) YEAR RECONSTRUCTED 0000	(72) APPROACH ROADWAY ALIGNMENT	8
(42) TYPE OF SERVICE ON 1 UNDER 1		(36) TRAFFIC SAFETY FEATURE	
(28) LANES ON 02 UNDER 04		36A) BRIDGE RAILINGS:	1
(29) AVERAGE DAILY TRAFFIC 133124	(19) BYPASS DETOUR LENGTH 0	36B) TRANSITIONS:	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		36C) APPROACH GUARDRAIL:	1
(109) AVERAGE DAILY TRUCK TRAFFIC 12		36D) APPROACH GUARDRAIL ENDS:	1
GEOMETRIC DATA		(113) SCOUR CRITICAL BRIDGES	N
(48) LENGTH OF MAX SPAN (ft.) 43	(49) STRUCTURE LENGTH (ft.) 174	SUFFICIENCY RATING	0 STATUS 95.0
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		CLASSIFICATION	
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	40.0	(112) NBIS BRIDGE LENGTH	Y
(52) DECK WIDTH, OUT-TO-OUT (ft.)	43.2	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(32) APPROACH ROADWAY WIDTH (ft.)	38.1	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 10	(100) STRAHNET HIGHWAY DESIGNATION	1
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 16.91	(101) PARALLEL STRUCTURE DESIGNATION	L
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	41.0	(102) DIRECTION OF TRAFFIC	2
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.90	(103) TEMP STRUCTURE	
(54) VERTICAL UNDER CLEARANCE (ft.)	H 16.75	(105) FEDERAL LANDS HIGHWAYS	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	H 8.6	(110) DESIGNATED NATIONAL NETWORK	1
(56) MIN LATERAL UNDER CLEARANCE (ft.)	6.4	(20) TOLL	3
PROPOSED IMPROVEMENTS		(21) MAINTENANCE RESPONSIBILITY	01
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(22) OWNER	01
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)		(37) HISTORICAL	4
(94) BRIDGE IMPROVEMENT COST (\$)		NAVIGATION DATA	
(95) ROADWAY IMPROVEMENT COST (\$)		(38) NAVIGATION CONTROL	N
(96) TOTAL PROJECT COST		(111) PIER OR ABUTMENT PROTECTION	5
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(39) NAV VERT CLEARANCE (ft.)	0
(114) FUTURE ADT 52057	(115) YEAR OF FUTURE ADT 2028	(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

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Facility Carried: I-540 SB Lanes

## Bridge Inspection Report

## National Bridge Inventory

## UNDER RECORD A

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	I540 SB Lanes
(3) COUNTY CODE	131	(8) STRUCTURE NUMBER	A6878
(4) PLACE CODE	24060	(9) LOCATION	6.24 Mi So Jct I40-11
(5) INV. ROUTE (ON/UNDER)	A 5 1 23200 2	(11) MILEPOINT	3.319 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	Grand Avenue	(13A) LRS INVENTORY ROUTE	00EGrand00 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	35. (17) LONGITUDE -94.3643888888889
			3848333333333

## 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	1983
(27) YEAR BUILT	2013	(42) TYPE OF SERVICE	ON 1 UNDER 1
(28) LANES	ON 02 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	1481		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.91	(48) LENGTH OF MAXIMUM SPAN	43	(49) STRUCTURE LENGTH	174
(47) TOTAL HORIZONTAL CLEARANCE	39.8				

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	14	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	L	(110) DESIGNATED NATIONAL NETWORK	0

## UNDER RECORD B

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	I540 SB Lanes
(3) COUNTY CODE	131	(8) STRUCTURE NUMBER	A6878
(4) PLACE CODE	24060	(9) LOCATION	6.24 Mi So Jct I40-11
(5) INV. ROUTE (ON/UNDER)	B 5 1 23200 4	(11) MILEPOINT	3.319 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	Grand Avenue	(13A) LRS INVENTORY ROUTE	00EGrande0 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	35. (17) LONGITUDE -94.3643888888889
			3848333333333

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(27) YEAR BUILT	2013	(42) TYPE OF SERVICE	ON 1 UNDER 1
(28) LANES	ON 02 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	1481		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.83	(48) LENGTH OF MAXIMUM SPAN	43	(49) STRUCTURE LENGTH	174
(47) TOTAL HORIZONTAL CLEARANCE	39.9				

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	14	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	L	(110) DESIGNATED NATIONAL NETWORK	0



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## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	6880	sq. ft.	6819	61	0	0
	<p>07/31/2017 - JCJ &amp; JML - The driving surface of the deck has a new polymer overlay that is approximately 0.25" thick that has been applied since the last inspection.</p> <p>There are transverse cracks with light efflorescence at variable spacing visible from the undersurface of the overhangs.</p> <p>07/23/2015 - EJW &amp; RWF - Numerous pop outs in driving surface of deck due to shale inclusion in the concrete from the construction process. Sealable transverse cracking typical in all spans. The saw joint sealant is missing/deteriorated in several locations. Random isolated longitudinal cracks with light scale in the left gutter. Visible wear in the both driving lanes.</p>						
1120 - Efflorescence/Rust Staining		21			21		
1130 - Cracking (RC and Other)		40			40		
510 - Wearing Surfaces		6880	sq. ft.	6880			
107 - Steel Open Girder/Beam	1- Ben.	1032	ft.	1032			
	07/31/2017 - JCJ & JML - There are no apparent problems at this inspection.						
515 - Steel Protective Coating		8105	sq. ft.	8105			
205 - Reinforced Concrete Column	1- Ben.	9	each	9			
	07/31/2017 - JCJ & JML - There are no apparent problems at this inspection.						
215 - Reinforced Concrete Abutment	1- Ben.	88	ft.	26	62	0	0
	07/31/2017 - JCJ & JML - The abutments have a few isolated vertical hairline cracks visible in the face of the backwalls. There are numerous transverse cracks in the top of the backwall visible from the driving surface of the deck. There is 1 patched area in the top of the backwall at Bent 5 visible from the driving surface of the deck.						
1080 - Delamination/Spall/Patched Area		1			1		
1130 - Cracking (RC and Other)		61			61		
234 - Reinforced Concrete Pier Cap	1- Ben.	126	ft.	126			
	07/31/2017 - JCJ & JML - There are no apparent problems at this inspection.						
300 - Strip Seal Expansion Joint	1- Ben.	86	ft.	86			
	07/31/2017 - JCJ & JML - There are no apparent problems at this inspection.						
310 - Elastomeric Bearing	1- Ben.	30	each	30			
	07/31/2017 - JCJ & JML - There are no apparent problems at this inspection.						
321 - Reinforced Concrete Approach Slab	1- Ben.	1800	sq. ft.	1723	77	0	0
	07/31/2017 - JCJ & JML - There are transverse and longitudinal cracking in both approach slabs.						

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Bridge Inspection Report

Element Inspection

1130 - Cracking (RC and Other)		77			77		
331 - Reinforced Concrete Bridge Railing	1- Ben.	344	ft.	257	87	0	0
	07/31/2017 - JCJ & JML - There are vertical and longitudinal hairline cracks in the face of the parapet walls.						
1130 - Cracking (RC and Other)		87			87		

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## Bridge Inspection Report

Pictures



Inspector:

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## Bridge Inspection Report

Sketches

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## Bridge Inspection Report

### Maintenance Needs