

# Bridge Inspection Report

**B5040**  
**I 40-SEC 21-EB LN**  
**over**  
**CR 440, Horsehead Creek**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

## TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	7
ELEMENTS	8
PICTURES	10
SKETCHES	11

Inspector:

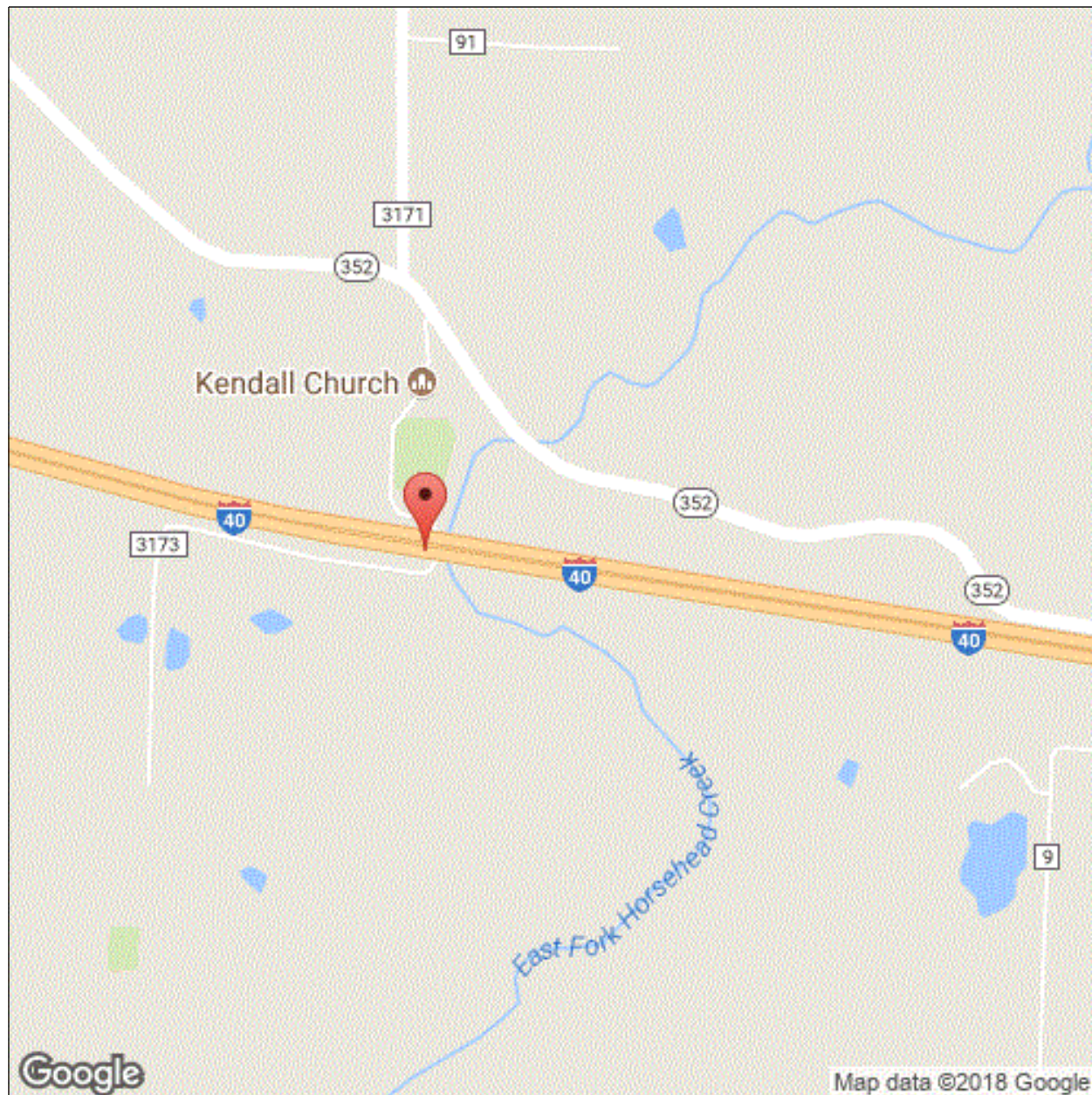
Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Location Map



Latitude: 35.49375

Longitude: -93.62095



Inspector:

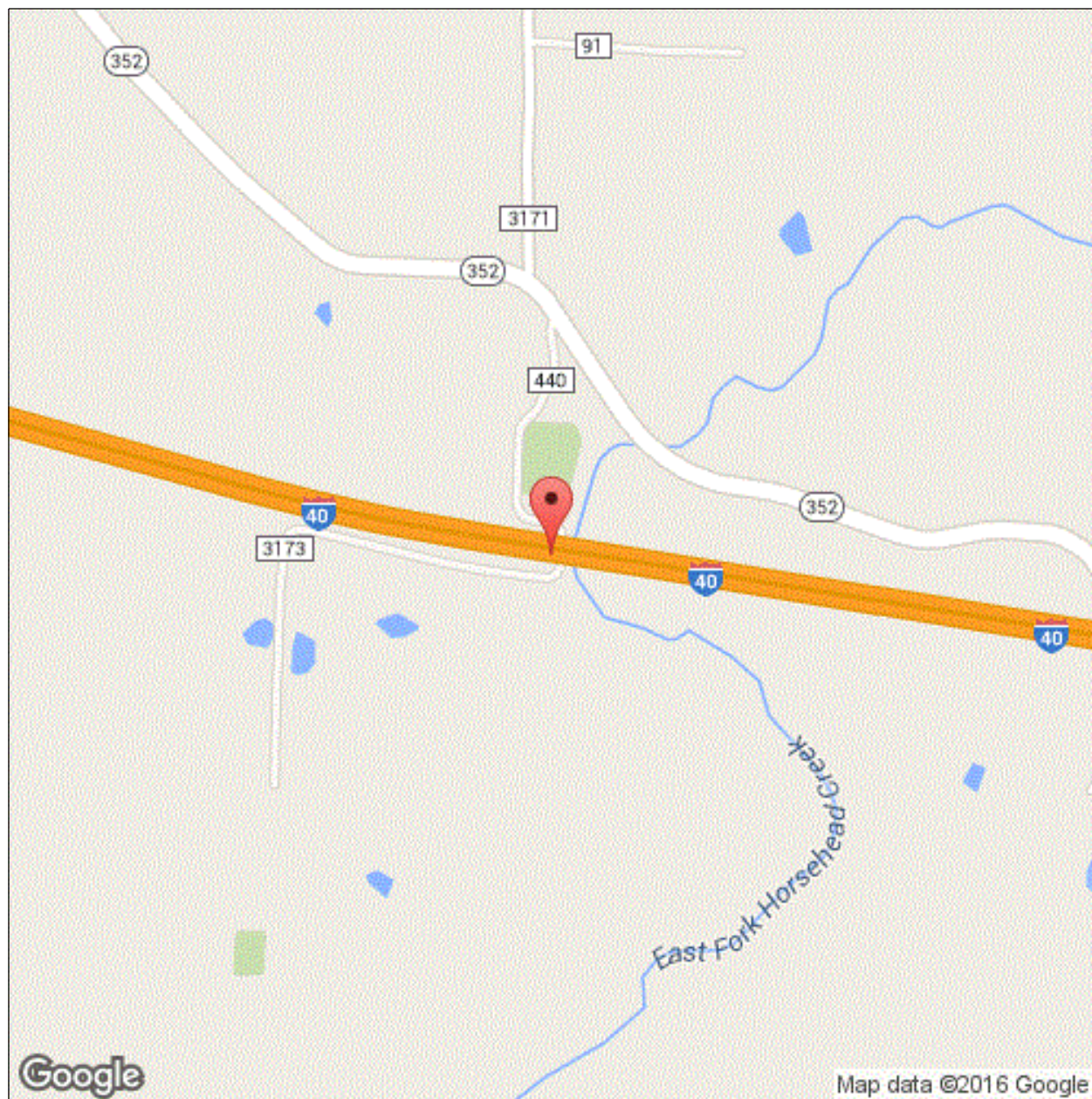
Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Location Map



Latitude: 35.49375

Longitude: -93.62095



Inspector:

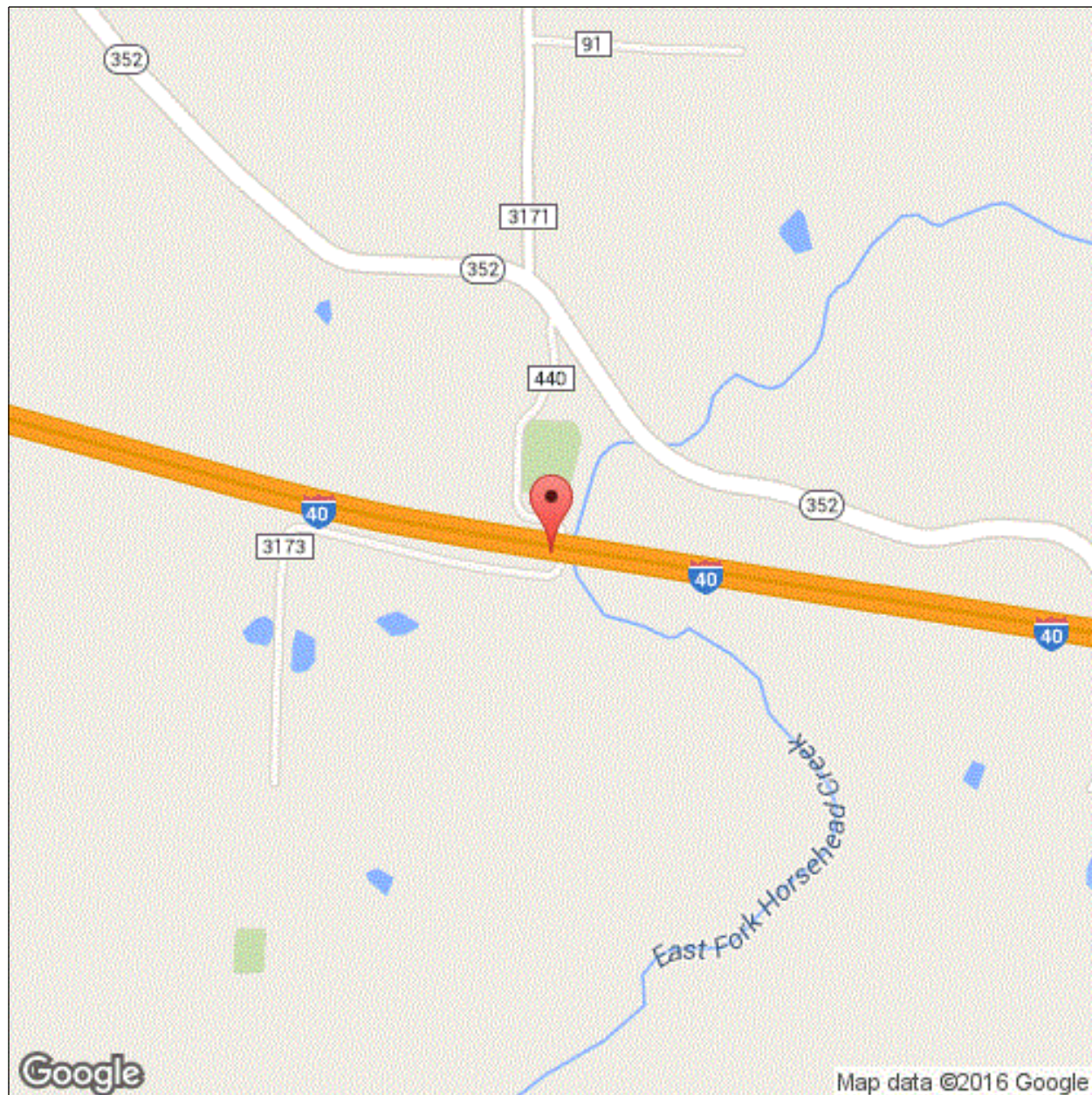
Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Location Map



Latitude: 35.49375

Longitude: -93.62095

**Inspector:**

**Inspection Date:**

**Structure Number:** B5040

**Facility Carried:** I 40-SEC 21-EB LN

**Bridge Inspection Report**

**Executive Summary**

Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	03/06/2018
(8) STRUCTURE NUMBER	B5040	(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	08 (3) COUNTY CODE 071	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	CR 440, Horsehead Creek	C. OTHER SPECIAL	Y 24 02/12/2019
(7) FACILITY CARRIED	I 40-SEC 21-EB LN		
(9) LOCATION	4.87 M E Franklin Co Line		
(11) MILEPOINT 48.790	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000040210 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.49375	(17) LONGITUDE -93.62095		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	5
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE	5
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(60) SUBSTRUCTURE	5
(44) STRUCTURE TYPE, APPROACH SPANS		(61) CHANNEL & CHANNEL PROTECTION	7
A) KIND OF MATERIAL/DESIGN: 0 - Other		(62) CULVERT	N
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 7	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1969	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	6
(42) TYPE OF SERVICE ON 1 UNDER 6		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 02		(64) OPERATING RATING	60.0
(29) AVERAGE DAILY TRAFFIC 22000	(19) BYPASS DETOUR LENGTH 18	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	36.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 50	(49) STRUCTURE LENGTH (ft.) 313	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	6
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 39.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	3
(52) DECK WIDTH, OUT-TO-OUT (ft.) 42.1		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 40.0		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 40.0		36B) TRANSITIONS:	1
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	1
(54) VERTICAL UNDER CLEARANCE (ft.) H 13.08		36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) H 9		(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.) 5		SUFFICIENCY RATING	69.0 STATUS 2
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	01
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	1
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	R
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	1
(114) FUTURE ADT 14048	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12 - Reinforced Concrete Deck</b>	1- Ben.	13177	sq. ft.	3177	9000	1000	0
	MODERATE CRACKING & SCALE THROUGHOUT DECK. MINOR TO MODERATE DELAM & SPALLING W / REBAR EXPOSED IN SPANS 1, 2, 3 & 5. MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED AROUND DECK DRAINS. MINOR CRACKING W / EFFLOR IN SOFFIT.						
1080 - Delamination/Spall/Patched Area		3500		0	3500	0	0
1130 - Cracking (RC and Other)		6500		0	5500	1000	0
<b>107 - Steel Open Girder/Beam</b>	1- Ben.	2177	ft.	2105	35	37	0
	MINOR RUST & OLD SECTION LOSS IN HAUNCHED AREAS OF SOME BEAMS. SEVERAL BEAMS IN SPANS 1 - 5 HAVE CRACKS IN WEB AT DIAPHRAGM CONNECTIONS. PLATES ARE WELDED TO WEB FOR DIAPHRAGMS TO BOLT ON. SEE A5040 BEAM NOTES 18 FOR CRACK DETAILS. MINOR IMPACT DAMAGE TO BEAMS 2 & 7 IN SPAN 2.  Span #2, Beam #'s 5, 6 & 7 - Recent impact damage has occurred since last inspection. All beams have some damage to the bottom flange with beam #5 having the worse damage. Beam #5 is 2 1/4" out of plum measuring from the top flange to bottom flange. Under clearance inspection 02/12/2019 glcd103						
1000 - Corrosion		50		0	20	30	0
1010 - Cracking		12		0	5	7	0
7000 - Damage		10		0	10	0	0
515 - Steel Protective Coating		13835	sq. ft.	13815	0	20	0
3440 - Effectiveness (Steel Protective Coatings)		20		0	0	20	0
<b>205 - Reinforced Concrete Column</b>	1- Ben.	14	each	13	1	0	0
	COND. 1 - 13 EA - MINOR CRACKING & SCALE THROUGHOUT. COND. 2 - 1 EA - MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED ON COLUMN 1 AT PIER 3.						
1090 - Exposed Rebar		1		0	1	0	0
<b>215 - Reinforced Concrete Abutment</b>	1- Ben.	86	ft.	86	0	0	0
	MINOR CRACKING.						
<b>234 - Reinforced Concrete Pier Cap</b>	1- Ben.	234	ft.	140	94	0	0
	COND. 1 - 140 LF - MINOR CRACKING & SCALE IN CAPS COND 2 - 94 LF - MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN FACES CAPS 2, 4, 5, 6 & 7. MODERATE CRACKING & SCALE IN CAPS.						
1080 - Delamination/Spall/Patched Area		44		0	44	0	0



Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

## Element Inspection

1130 - Cracking (RC and Other)		50		0	50	0	0
<b>302 - Compression Joint Seal</b>	1- Ben.	312	ft.	0	0	204	108
COND. 3 - 204 LF - MODERATE TO MAJOR DELAM & CRACKING IN ALL SEALS. MINOR POPPING AT JOINTS ON IMPACT. COND. 4 - 108 LF - SEALS AT PIERS 4 & 5 HAVE FAILED & FALLEN OUT OF JOINTS. SEALS AT PIERS 6 & 7 & ABUTMENT 8 HAVE SOME FAILED AREAS.							
2310 - Leakage		108		0	0	0	108
2330 - Seal Damage		204		0	0	204	0
<b>311 - Movable Bearing</b>	1- Ben.	49	each	0	29	20	0
MINOR TO MODERATE RUST ON ALL BEARINGS.							
1000 - Corrosion		49		0	29	20	0
515 - Steel Protective Coating		147	sq. ft.	0	87	60	0
3440 - Effectiveness (Steel Protective Coatings)		147		0	87	60	0
<b>313 - Fixed Bearing</b>	1- Ben.	49	each	0	29	20	0
MINOR TO MODERATE RUST ON ALL BEARINGS.							
1000 - Corrosion		49		0	29	20	0
515 - Steel Protective Coating		147	sq. ft.	0	87	60	0
3440 - Effectiveness (Steel Protective Coatings)		147		0	87	60	0
<b>321 - Reinforced Concrete Approach Slab</b>	1- Ben.	2880	sq. ft.	1080	1300	500	0
MINOR TO MODERATE CRACKING THROUGHOUT.							
1130 - Cracking (RC and Other)		1800		0	1300	500	0
<b>330 - Metal Bridge Railing</b>	1- Ben.	626	ft.	626	0	0	0
Aluminum Rail							
<b>331 - Reinforced Concrete Bridge Railing</b>	1- Ben.	626	ft.	626	0	0	0
MINOR SCALE IN CONCRETE.							

Inspector:

Inspection Date:

Structure Number: B5040

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Pictures

PHOTO 1

Description

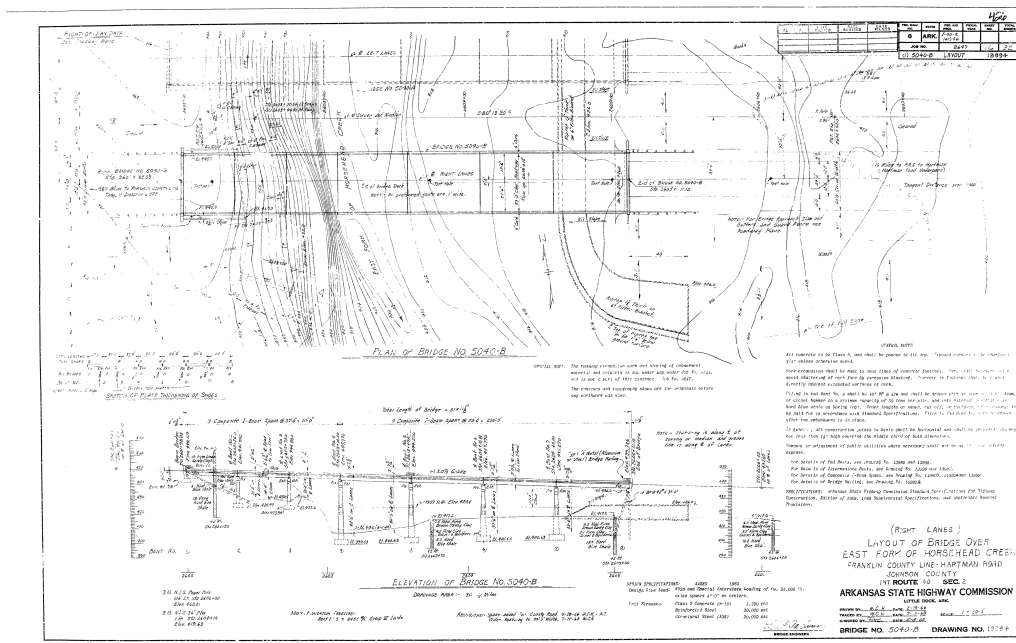


PHOTO 1

Description

**Inspector:**

**Inspection Date:**

**Structure Number:** B5040

**Facility Carried:** I 40-SEC 21-EB LN

**Bridge Inspection Report**

**Sketches**



Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 2/22/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Deck; span # 3

Spalling with rebar exposed.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Typ. Spalling in Span 3.

Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 2/22/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Deck; all spans

Moderate unsealed cracks, most of cracks are transverse.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Typ. Cracking & Spalling in Deck.

Stage: Monitor



PHOTO 2      Description      Typ. Cracking & Scaling in Deck.



Inspector:

Inspection Date:

Structure Number: B5040

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Maintenance Needs

Stage: Monitor



PHOTO 3    Description    Typ. Cracking in Deck.

Stage: Monitor



PHOTO 4    Description    Typ. Spalling at Joints.



Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 2/22/2012 12:00:00 AM

Priority: C - Important

Work Code:

---

### Deficiency Description:

Span # 1 – beam #s 4 & 6

Span # 2 – beam #s 1 & 2 & 3 & 4 & 6.

Span # 3 – beam #s 1 & 4 & 6 & 7.

Span # 4 – beam # 4 at both diaphragms at left side of beams.

Horizontal cracks have developed in web above diaphragms.

Several new cracks have developed and some of old cracks have grown since last inspection.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Typ Cracking in Beams.

Inspector:

Structure Number: B5040

Inspection Date:

Facility Carried: I 40-SEC 21-EB LN

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 2/22/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Deck joint #s 4 & 5.  
Joint material is missing.  
Joints 6, 7 & 8 have Failed Areas.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Seal Failed at Joints.