



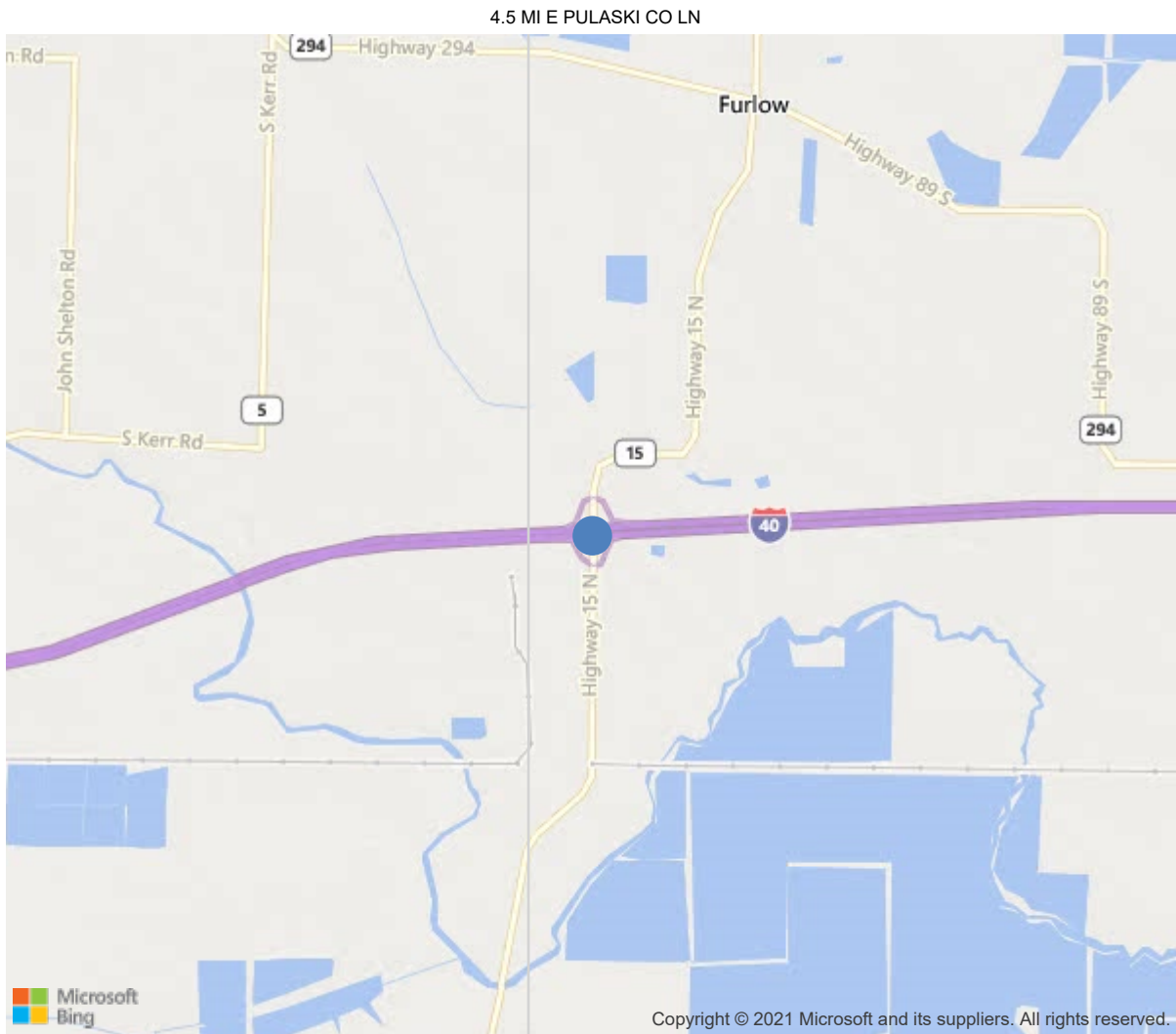
Latitude:34.80139, Longitude:-91.99439

Route:15 Section:11 Log:2.76

Arnold Road ID:43x15x11xA, Arnold Log mile:2.766

District 06, Lonoke County

Owner: 1-State Highway Agency



34.80139, -91.99439



Bridge #A3224(Routine)

SH 15 over I-40 LOG 168.58

Location: 4.5 MI E PULASKI CO LN

Team Lead: Keith Harris Inspection Date: May 12, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A3224
(5) Inventory Route	15
(2) Highway Agency District	06
(3) County Code	85-Lonoke County, Arkansas
(4) Place Code	0
(6) Features Intersected	I-40 LOG 168.58
(7) Facility Carried	SH 15
(9) Location	4.5 MI E PULASKI CO LN
(11) Mile Point	2.76 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.8013888888889
(17) Longitude	-91.9943888888889
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
Type	2-Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	6
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1961
(106) Year Reconstructed	1969
(42) Type of Service	61
On	6-Overpass structure at an interchange or secon
Under	1-Highway, with or without pedestrian
(28) Lane	
On	2
Under	4
(29) Average Daily Traffic	1544
(30) Year of ADT	2018
(109) Truck ADT	5 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	59 ft
(49) Structure Length	308 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	16.33 ft
Ref:	
(55) Min Lat Underclear RT	10.5 ft
Ref:	
(56) Min Lat Underclear LT	18.1 ft
NAVIGATION DATA	
(38) Navigation Control	N-Not applicable, no waterway.
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	2-Rural Principal Arterial - Oth
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	0-The inventory route is not part of
(20) Toll	3-On free road. The structure is toll
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	5
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4-M 18 / H 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	50
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	6
Rating	30
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Clearances, Vertical/Horizontal	4
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	N-Bridge not over waterway.
PROPOSED IMPROVEMENTS	
(75) Type of Work	Bridge rehabilitation because
(76) Length of Structure Improvement	308 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 580
(97) Year of Improvement Cost Estimate	1996
(114) Future ADT	7320
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			05/2021
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

**Team Lead:** Keith Harris, **Inspection Date:** May 12, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12913	7652	4177	1084	0
1080	Delamination/Spall/Patched Area	SF	757	0	612	145	0
1090	Exposed Rebar	SF	89	0	0	89	0
1120	Efflorescence/Rust Staining	SF	850	0	0	850	0
1130	Cracking (RC and Other)	SF	2637	0	2637	0	0
1190	Abrasion/Wear (PSC/RC)	SF	928	0	928	0	0
(12)							
The deck has approx. 328 sf of concrete patching, 254 foot of spalls, 89 foot of spalls with exposed rebar. The surface of the deck has sealed and unsealed transverse cracks on three foot centers and are up to 1/8 inch wide. Some cracks reflect thru to the soffit with effloresces							
107	Steel Open Girder/Beam	LF	2448	990	1215	243	0
1000	Corrosion	LF	1458	0	1215	243	0
515	Steel Protective Coating	SF	16694	0	12519	3275	900
3420	Peeling/Bubbling/Cracking	SF	400	0	400	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	16294	0	12119	3275	900
(107)							
The beam ends and scattered areas along the top and bottom flanges have active rust with moderate pitting. This is most common on the original beams before the bridge was widened.							
205	Reinforced Concrete Column	EA	20	7	9	4	0
1080	Delamination/Spall/Patched Area	EA	2	0	1	1	0
1090	Exposed Rebar	EA	6	0	3	3	0
1130	Cracking (RC and Other)	EA	5	0	5	0	0
(205)							
Bent 2, columns 2&3: both cracked and have delamns. Bent 4 columns 1,2,3&4 have exposed rebar or spalls Bent 6, columns 2,3,4 are cracked.							
215	Reinforced Concrete Abutment	LF	96	75	21	0	0
1080	Delamination/Spall/Patched Area	LF	13	0	13	0	0
1090	Exposed Rebar	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(215)							
Both abutments cracks in the back walls. Small spalls in top of back walls							



**Bridge #A3224(Routine)**

**SH 15 over I-40 LOG 168.58**

**Location: 4.5 MI E PULASKI CO LN**

**Team Lead: Keith Harris, Inspection Date: May 12, 2021**

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
234	Reinforced Concrete Pier Cap	LF	210	175	13	22	0
1080	Delamination/Spall/Patched Area	LF	11	0	10	1	0
1090	Exposed Rebar	LF	24	0	3	21	0
(234)							
Small delaminations are present on the faces of all the caps. The caps of bents 2,3,4 & 5 have Spalls with exposed rebar on the sides and bottom.							
305	Assembly Joint without Seal	LF	280	130	150	0	0
2360	Adjacent Deck or Header	LF	150	0	150	0	0
(305)							
Several areas of the deck at the joints are cracked, spalled and patched.							
311	Movable Bearing	EA	48	0	48	0	0
1000	Corrosion	EA	48	0	48	0	0
313	Fixed Bearing	EA	48	0	48	0	0
1000	Corrosion	EA	48	0	48	0	0
330	Metal Bridge Railing	LF	612	612	0	0	0
331	Reinforced Concrete Bridge Railing	LF	612	548	64	0	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
1090	Exposed Rebar	LF	6	0	6	0	0
1130	Cracking (RC and Other)	LF	52	0	52	0	0





Approach



Deck overview





Span 2 under view



Typical paint condition





Bent 3 column 3 large delam



Bent 4 cap



## Maintenance Needs

**Date Reported:** 04/29/2014  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Component:**

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## Deficiency Description

Soffit has numerous open spalls, open spalls with rebar exposed, delamination and large cracks with efflorescence and rust stain.

Deck has spalls and spalls filled with asphalt

## Remarks

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Span 6 with an open spall in northbound lane



Soffit view of span 6: (worst case)



Span 1 spalls and spall# filled with asphalt



Spalls with exposed rebar on the right side of span



Span 4 under view



**Date Reported:** 05/16/2017  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Component:**

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**Deficiency Description**

Beam ends at bents 2,3,4,5 & 6 have active rust with moderate pitting at the upper web at deck haunch.  
Added 5-2021 span 1 beam 6 at bent 2 has a 1/2" hole in haunch area

**Remarks**

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Span 6, bent 5, girder 5 and 6: measurable section loss to the girder at the haunch. Similar condition at girders 1, 5,6, and 7



span 1 beam 6 at bent 2 has a 1/2" in haunch area





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**Location: 4.5 MI E PULASKI CO LN**

**Team Lead:** Keith Harris **Inspection Date:** May 12, 2021

### **Inspection Comments**

Drawing NO. 15961Form IIIB revised 5/16/17

Logged North bound.