



Latitude:36.13245, Longitude:-94.14585

Route:71 Section:17 Log:2.73

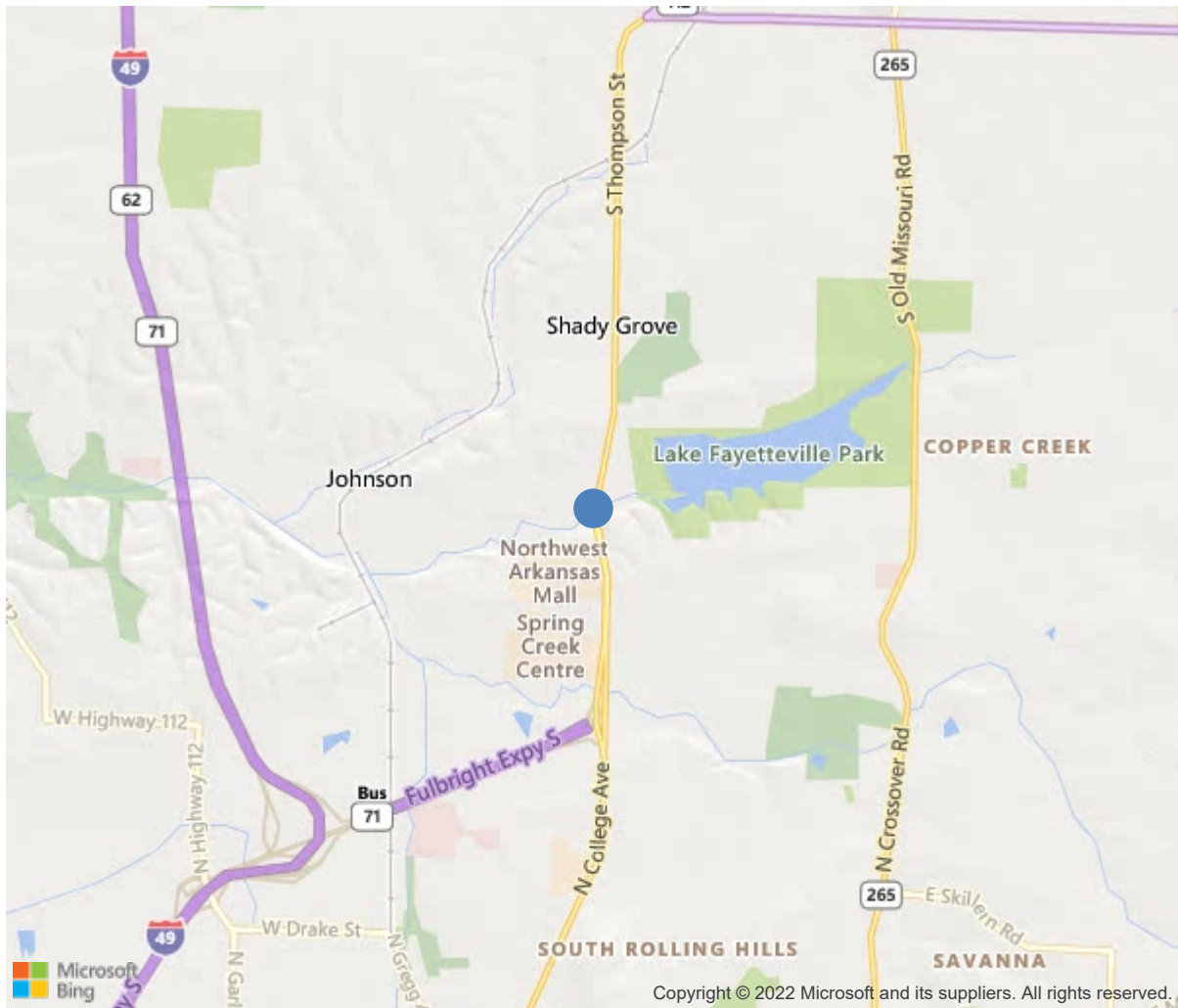
Arnold Road ID:72x71x17BxB, Arnold Log mile:5.112

District 04, Washington County

Owner: 1-State Highway Agency

Place Code: 23290 - Fayetteville

5.47 MI S BENTON CO LINE



36.13245, -94.14585

Inspection Direction : S to N





Bridge #A5392(Routine)

US 71 B, SB LNS over Clear Creek- Washington

Location: 5.47 MI S BENTON CO LINE

Team Lead: Bob McEntyre Inspection Date: November 09, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A5392
(5) Inventory Route	71
(2) Highway Agency District	04
(3) County Code	143-Washington County, Arkansas
(4) Place Code	23290
(6) Features Intersected	Clear Creek- Washington
(7) Facility Carried	US 71 B, SB LNS
(9) Location	5.47 MI S BENTON CO LINE
(11) Mile Point	2.73 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	000007117B
(16) Latitude	36.13245
(17) Longitude	-94.14585
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	21
Material	2-Concrete continuous
Type	1-Slab
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	3
(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	1972
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	3
Under	0
(29) Average Daily Traffic	49093
(30) Year of ADT	2014
(109) Truck ADT	1 %
GEOMETRIC DATA	
(48) Length of Maximum Span	51 ft
(49) Structure Length	130 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	44.9 ft
(52) Deck Width Out to Out	48.3 ft
(32) Approach Roadway Width (W/Shoulders)	45.9 ft
(33) Bridge Median	1-Open median
(34) Skew	15 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	46.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(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	1
(26) Functional Class	14-Urban Other Principal Arterial
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	L-The left structure of parallel
(102) Direction of Traffic	1 - 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	5
(60) Substructure	7
(61) Channel & Channel Protection	8
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5-MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	36
(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	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1-Inspected feature meets currently a
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	23910
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			11/2021
(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:** Bob McEntyre, **Inspection Date:** November 09, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	6293	1637	3126	1530	0
1080	Delamination/Spall/Patched Area	SF	150	0	21	129	0
1090	Exposed Rebar	SF	3	0	2	1	0
1120	Efflorescence/Rust Staining	SF	103	0	103	0	0
1130	Cracking (RC and Other)	SF	4400	0	3000	1400	0
(38)							
-The driving surface has mapcracking in all lanes in the negative moment regions near the intermediate bents. -Span # 1 has two 30" spalls with asphalt patches in the center lane near abutment # 1. -The driving surface has four 5' long x 14" wide spalls with asphalt patches over bent # 2. The repairs are failing with potholes forming in the driving surface. -Spans # 2 and 3 have basket ball sized spalls with exposed reinforcing steel (Exposed reinforcing steel Not visible during this inspection due to asphalt patches). Exposed reinforcing steel has initial section loss during this inspection. -Driving surface of span # 3 has an area of spalling with failing asphalt repairs approximately 30' long x 5' wide located near centerline.  Deck Soffit - -The undersurface of span # 1 has a shallow spall and delaminated areas adjacent to the deck drain at mid-span. -The longitudinal construction joint in span # 3 has a 5" spall with exposed reinforcing steel. -One longitudinal crack with light efflorescence is visible from the undersurface of all 3 spans at the centerline construction joint. -The edges of the deck have one or two vertical hairline cracks with light efflorescence over the intermediate bents. -There are small spalls and scrape marks in the exterior edges of the deck over the pedestrian walk way under span # 1.							
205	Reinforced Concrete Column	EA	6	6	0	0	0
(205)							
-No apparent or noteworthy problems during this inspection.							
215	Reinforced Concrete Abutment	LF	138	137	1	0	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(215)							
-Abutments have staining in the key ways and other random locations with no apparent noteworthy deficiencies during this inspection.							
220	Reinforced Concrete Pile Cap/Footing	LF	36	36	0	0	0
(220)							
-The top of the footings are exposed at bent # 3, columns # 1 and 2. No apparent undermining or scour problems during this inspection.							
234	Reinforced Concrete Pier Cap	LF	100	99	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(234)							
-The backface of bent # 3 cap has a 4" shallow spall with no exposed reinforcing steel located approximately 5' right of centerline. No other apparent or noteworthy problems during this inspection.							



**Bridge #A5392(Routine)**  
**US 71 B, SB LNS over Clear Creek- Washington**

**Location: 5.47 MI S BENTON CO LINE**

**Team Lead:** Bob McEntyre, **Inspection Date:** November 09, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
301	Pourable Joint Seal	LF	100	0	0	0	100
2350	Debris Impaction	LF	100	0	0	0	100
(301)	-Pourable joint sealant at both bridge ends has failed with the joints full of incompressible material.						
321	Reinforced Concrete Approach Slab	SF	3220	1720	1496	4	0
1130	Cracking (RC and Other)	SF	420	0	416	4	0
1190	Abrasion/Wear (PSC/RC)	SF	1080	0	1080	0	0
(321)	-The South approach slab has light abrasion and transverse cracks in the driving lanes and medium scale in the right approach gutter.						
330	Metal Bridge Railing	LF	262	254	3	5	0
1020	Connection	LF	8	0	3	5	0
(330)	-The left and right bridge railing in span # 3 has loose and missing bolts that attach the metal railing to the posts.						
331	Reinforced Concrete Bridge Railing	LF	262	240	22	0	0
1130	Cracking (RC and Other)	LF	22	0	22	0	0
(331)	-Concrete portions of the bridge railing have a few short duration vertical hairline cracks.						



Inventory 1 looking North.



Abutment # 2.





Span # 3-Spall with exposed reinforcing steel in slab undersurface in centerline construction joint.



Bent 3, column 1 footing exposed.





Bent 2 cap-Shallow spall in backface right of centerline.



The undersurface of Span # 1 has a shallow spall and delaminated areas adjacent to the deck drain at mid-span.





Span 1-Efflorescence at centerline construction joint.



Vertical crack with light efflorescence on exterior side of slab over bent # 2.





Pedestrian / bicycle trail under span # 1.



Abutment 1.





Span 3 undersurface.



Bent 3.





Bent 2.



Span 2 undersurface.





Span 3, right side at abutment 2-Missing bolt at post connection.



Span 3, right side-Missing bolt at post connection.





South approach slab-Transverse crack.



Abutment 2 expansion joint-Failing sealant with debris impactation.





Driving surface of span # 3 has an area of spalling with failing asphalt repairs approximately 30' long x 5' wide located near centerline.



Span 2-Mapcracking.





Span -Mapcracking.



Spalls with asphalt repairs over bent 2.





Span 1, center lane-Spalls with asphalt repairs.



Dirt and debris accumulation in gutters.





Abutment 1, right side-Spall in turn back portion of abutment.



South approach slab.



## Maintenance Needs

**Date Reported:** 11/30/2011  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 38 - RC Slab

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## Deficiency Description

Deck -  
Span # 1 has two 30" spalls with asphalt patches in the center lane near abutment # 1.  
The driving surface has four 5' long x 14" wide spalls with asphalt patches over bent # 2. The repairs are failing with potholes forming in the driving surface.  
Spans # 2 and 3 have basket ball sized spalls with exposed reinforcing steel (Exposed reinforcing steel not visible during this inspection due to asphalt patches). Exposed reinforcing steel is documented as having initial section loss.  
Driving surface of span # 3 has an area of spalling with failing asphalt repairs approximately 30' long x 5' wide located near centerline.  
The undersurface of the slab in span # 3 has a 5" spall with exposed reinforcing steel at the longitudinal construction joint at centerline of structure.

## Remarks

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Span # 3. Typical.



Span # 3. Typical.



Transverse and map cracking over Bent # 2.



Spalls with asphalt repairs over bent 2.





Driving surface of span # 3 has an area of spalling with failing asphalt repairs approximately 30' long x 5' wide located near centerline.



Span # 3-Spall with exposed reinforcing steel in slab undersurface in centerline construction joint.

**Date Reported:** 11/30/2011  
**Priority:** D- Routine  
**Type of Work:** Replace  
**Status:** Monitor  
**Component:** 301 - Pourable Joint Seal

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**Deficiency Description**

Expansion Joints -  
Expansion joint material has failed and is full of debris at the North and South bridge ends.

**Remarks**

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North expansion joint.



South expansion joint.





Abutment # 2 expansion joint-Failing sealant with debris impaction.



**Date Reported:** 11/30/2011  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 330 - Metal Bridge Railing

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### Deficiency Description

#### Bridge Railing -

The right and left bridge rails in span # 3 have loose and missing bolts that attach the railing to the posts. The railing has slightly shifted out of position at some of the posts.

### Remarks

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Bridge railing typical.



Span # 3 loose bridge railing.





Span 3, right side at abutment 2-Missing bolt at post connection.



**Date Reported:** 10/12/2015  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 321 - Reinforced Concrete Approach Slab

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**Deficiency Description**

**Approach Slabs -**

The approach slabs have light abrasion and sealable transverse cracks in the driving lanes and medium scale on the South approach (Right) gutter.

**Remarks**

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South approach slab.



North approach slab.





South approach slab. Typical.



South approach slab-Transverse crack.





**Bridge #A5392**(Routine)  
**US 71 B, SB LNS over Clear Creek- Washington**  
**Location: 5.47 MI S BENTON CO LINE**

**Team Lead:** Bob McEntyre **Inspection Date:** November 09, 2021

**Date Reported:** 11/10/2021  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Open  
**Component:** 38 - RC Slab

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#### Deficiency Description

Deck -  
There are sealable cracks in the driving surface of the deck.  
The deck has random surface map cracking visible from the driving surface only.

#### Remarks

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Span 2-Mapcracking.





**Bridge #A5392**(Routine)

**US 71 B, SB LNS over Clear Creek- Washington**

**Location: 5.47 MI S BENTON CO LINE**

**Team Lead:** Bob McEntyre **Inspection Date:** November 09, 2021

### **Inspection Comments**

11/09/2021 - RSM & SPC: Routine Inspection conducted this date. See element notes for documentation.

11/13/2019 - TJL - Elements were plan verified on this date. 11/13/2019 - JCJ & TJL - ArDOT Drawing # 16967 - General Notes state that the footings shall be poured directly against excavated surfaces of rock and shall be a minimum of one foot into material designated limestone.

11/13/2019 - JCJ & TJL - Routine and Underwater Type 2 Inspections conducted on this date. Bent # 3, Columns # 1 and 2 footing is exposed. Footings appear to be keyed into solid limestone with no apparent scour problems during this inspection.