



Latitude:36.40228, Longitude:-94.15901

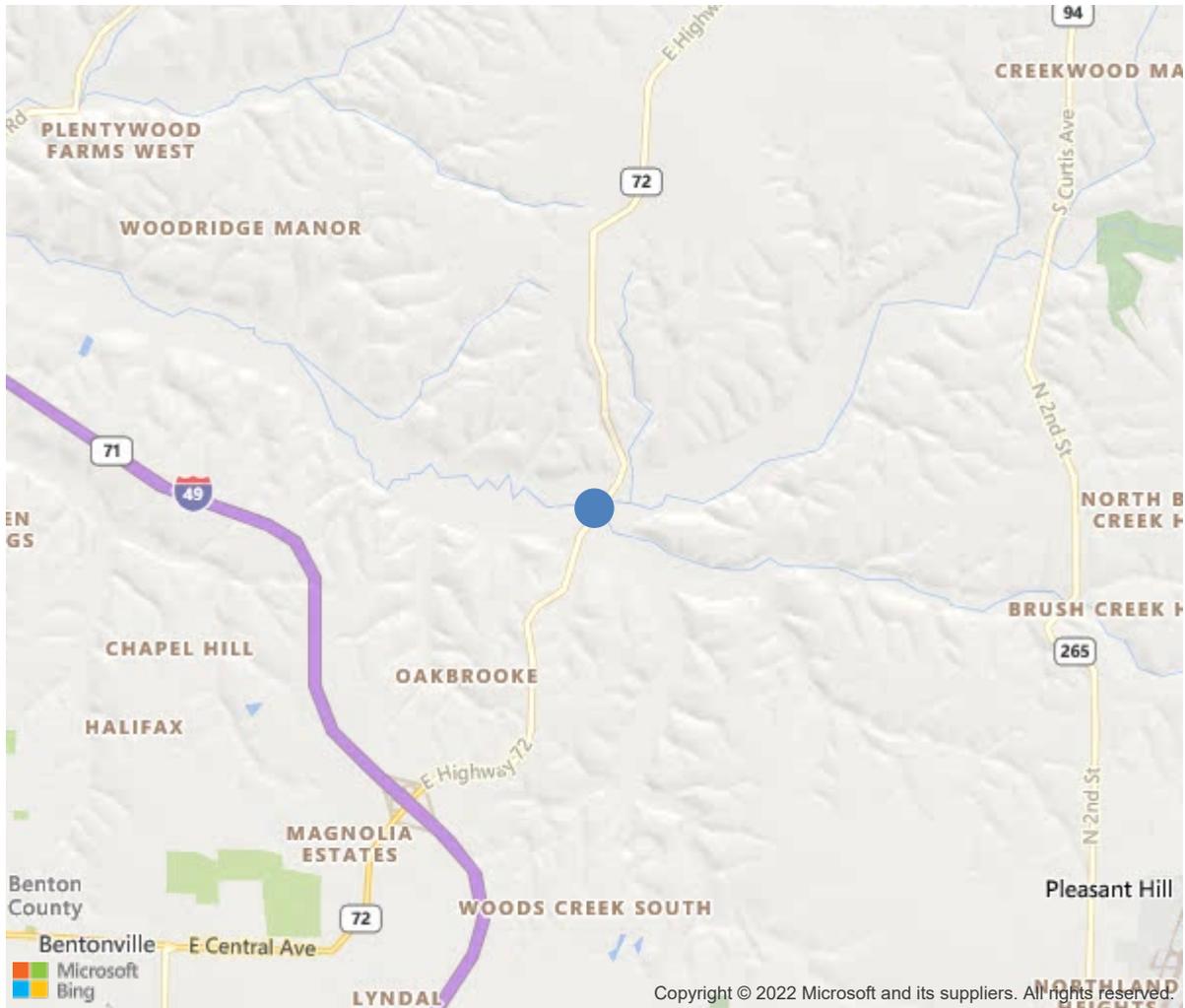
Route:72 Section:03 Log:2.1

Arnold Road ID:4x72x3xA, Arnold Log mile:2.077

District 09, Benton County

Owner: 1-State Highway Agency

2.1 M NE of JCT US 71



36.40228, -94.15901

Inspection Direction :



**Bridge #07056(Routine, Underwater type 2)**

**SH 72 Benton 1 over LITTLE SUGAR CREEK**

**Location: 2.1 M NE of JCT US 71**

**Team Lead: Nathan Rowland Inspection Date: April 29, 2021**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	07056
(5) Inventory Route	72
(2) Highway Agency District	09
(3) County Code	7-Benton County, Arkansas
(4) Place Code	0
(6) Features Intersected	LITTLE SUGAR CREEK
(7) Facility Carried	SH 72 Benton 1
(9) Location	2.1 M NE of JCT US 71
(11) Mile Point	2.1 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.40228
(17) Longitude	-94.15901
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4-Steel continuous
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	5
(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	1-Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	2007
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	12000
(30) Year of ADT	2018
(109) Truck ADT	15 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	95 ft
(49) Structure Length	440 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	43.4 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	30 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	41.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.9 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	0
(26) Functional Class	16-Urban Minor Arterial
(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	4-Historical significance is not dete
CONDITION	
(58) Deck	6
(59) Superstructure	7
(60) Substructure	8
(61) Channel & Channel Protection	6
(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	5
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	7
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	7
(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	5-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	8180
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			04/2021
(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.			



Bridge #07056(Routine, Underwater type 2)

SH 72 Benton 1 over LITTLE SUGAR CREEK

Location: 2.1 M NE of JCT US 71

Team Lead: Nathan Rowland, Inspection Date: April 29, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	17524	16425	1099	0	0
1120	Efflorescence/Rust Staining	SF	115	0	115	0	0
1130	Cracking (RC and Other)	SF	108	0	108	0	0
1190	Abrasion/Wear (PSC/RC)	SF	876	0	876	0	0
(12)	<p>04/29/2021 WNR &amp; DBM:  Driving surface:  - Left and right lanes have longitudinal cracking throughout the entire deck at random locations  - The wheel paths of the left and right lanes have light wear.  - The gutter line at the right and left sides both have minor debris accumulation.  - South approach roadway in the left lane has minor settlement.</p> <p>Deck Undersurface:  - The undersurface of the deck overhangs have transverse cracking with light efflorescence at random spacing in all spans.  Span #2- bays 2 &amp; 3 have corrosion in the SIP forms 15' from bent #1 beneath the pourable joint seal.  Span #3 has sip corrosion in bays #3,4 beneath the first field splice and in bay #1 at the 2nd field splice.</p>						
107	Steel Open Girder/Beam	LF	2185	2174	11	0	0
1000	Corrosion	LF	11	0	11	0	0
515	Steel Protective Coating	SF	29822	29800	0	22	0
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	SF	22	0	0	22	0
(107)	<p>04/29/2021 WNR &amp; DBM:  5 beam weathering steel system. The visible beam surface is 38" tall by 15 3/4" flange.</p> <p>Span #1- beam #1 has 2' of minor corrosion on the web at the beginning of the span. Beam #5 on the exterior side has 4' of minor corrosion on the web and bottom flange over abutment #1. The weathering steel patina is dark and has developed flaking in the affected area.</p> <p>Span 2 - has 4' of corrosion with flaking rust on beam #3 in span #2 at the field splice.</p> <p>Span #3- no deficiencies noted.</p> <p>Span #4- no deficiencies noted.</p> <p>Span #5- beam #5 has 1' of minor corrosion on the exterior web.</p>						
205	Reinforced Concrete Column	EA	12	12	0	0	0
(205)	<p>04/29/2021 WNR &amp; DBM:  Bent #1 column #3, Bent #2 column #1, Bent #3 column #3 and bent #4 column #3 all have localized scour due a flooding event. Bent #2 column #1 is the worst case condition due to minor channel migration that has directed the channel flow into the substructure. No footings were exposed at these locations.  - Areas of minor honeycombing are typical in the columns.</p>						



Bridge #07056(Routine, Underwater type 2)

SH 72 Benton 1 over LITTLE SUGAR CREEK

Location: 2.1 M NE of JCT US 71

Team Lead: Nathan Rowland, Inspection Date: April 29, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	138	110	28	0	0
1120	Efflorescence/Rust Staining	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	23	0	23	0	0
(215)							
04/29/2021 WNR & DBM: - Cracking in the back walls of abutments #1 & 2 was noted and is visible as transverse cracking across the top of the backwalls from the driving surface. The back wall has a few full height vertical cracks with light efflorescence in both abutments. The rip rap is in place and functioning as intended at abutments #1 and #2.							
234	Reinforced Concrete Pier Cap	LF	188	188	0	0	0
(234)							
04/29/2021 WNR & DBM: No deficiencies apparent in the caps at this inspection.							
300	Strip Seal Expansion Joint	LF	98	8	90	0	0
2350	Debris Impaction	LF	90	0	90	0	0
(300)							
04/29/2021 WNR & DBM: - Abutments 1 & 2 have loose debris impaction the full width of expansion joints.							
310	Elastomeric Bearing	EA	30	26	0	4	0
1000	Corrosion	EA	4	0	0	4	0
515	Steel Protective Coating	SF	60	52	0	8	0
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	SF	8	0	0	8	0
(310)							
04/29/2021 WNR & DBM: Abutment #1 bearings- #1,5 have corrosion with flaking rust due to a leaking expansion joint.  Bent #1 bearings- no deficiencies noted on all 5.  Bent #2 bearings- no deficiencies noted on all 5.  Bent #3 bearings- no deficiencies noted on all 5.  Bent #4 bearings- no deficiencies noted on all 5.  Abutment #2 bearings- bearings #1,5 both have corrosion with flaking rust due to a leaking joint seal.							
331	Reinforced Concrete Bridge Railing	LF	880	739	141	0	0
1130	Cracking (RC and Other)	LF	141	0	141	0	0
(331)							
04/29/2021 WNR & DBM: - Vertical hairline cracking at random spacing was noted in the left and right parapet walls. The cracks are mostly at the saw joints and corners of the drain areas.							



Inventory looking north



General view of deck.



General view of abutment #1



Longitudinal cracking over bent #1 in south bound lanes.



View of abutment #2



View of bent #4 ahead side.



Abutment #2 expansion joint debris impaction



View of joint at abutment #1



Upstream view



Upstream view



Downstream view



Typical view of the 5 bearings at abutment #1.



General view of abutment #2.



Approach view in direction of log mile.



4' of corrosion with flaking rust on beam #3 in span #2 at the field splice.



View of strip seal expansion joint at abutment #1.



Bridge plate.



Typical efflorescence cracking in the deck over hangs.



Typical view of driving surface.



Upstream channel view.



General view of the bents.



Minor corrosion of beam #5 in span #1. Typical of other locations.



Typical view of the undersurface.



Downstream channel view.



Approach guard rail damage at the right beginning of the structure.



Elevation view. Log mile from left to right.



Column #1 of bent #2 showing local scour. No footing was exposed.



General view of abutment #1.



Typical bearing condition over the bents.



Minor local scour around column #3 of bent # 4. No footing was exposed.

### Maintenance Needs

**Date Reported:** 04/24/2013  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Assigned  
**Component:**

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### Deficiency Description

The southeast approach railing has collision damage that has created a "pocket" in the railing.

### Remarks

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The southeast approach railing has collision damage that has created a "pocket" in the railing.



Guard rail damage at right side approach rail

**Date Reported:** 04/24/2013  
**Priority:** D- Routine  
**Type of Work:** None  
**Status:** Assigned  
**Component:**

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**Deficiency Description**

Deck -  
The driving surface of the deck has sealable cracking in all spans.  
The joint seals are beginning to leak and are promoting corrosion of the exterior bearings at abutments #1,2.

**Remarks**

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Typical longitudinal cracking.



Bent 1 Left longitudinal cracking.



Longitudinal cracking over bent #1 in south bound lanes.

**Date Reported:** 05/03/2021  
**Priority:** C - Important  
**Type of Work:** Clean  
**Status:** Open  
**Component:** Channel

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### Deficiency Description

Drift accumulation:

-Span #2 has a large tree that has wedged against girder #5 resulting from a high water event.

-The upstream side of Bent #3 has drift accumulation.

### Remarks

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Bent #3 drift accumulation



Span #2 has a large tree that has wedge against girder #5 resulting from a high water event.



**Bridge #07056**(Routine, Underwater type 2)  
**SH 72 Benton 1 over LITTLE SUGAR CREEK**  
**Location: 2.1 M NE of JCT US 71**

**Team Lead:** Nathan Rowland **Inspection Date:** April 29, 2021

### **Inspection Comments**

04/29/2021 WNR & DBM: Routine and underwater type II inspection conducted this date. See element notes for documentation.

Structure is logged from South to North and is accessible with a small extension ladder.

No bat activity was noted.