



Latitude:33.85359, Longitude:-91.25898

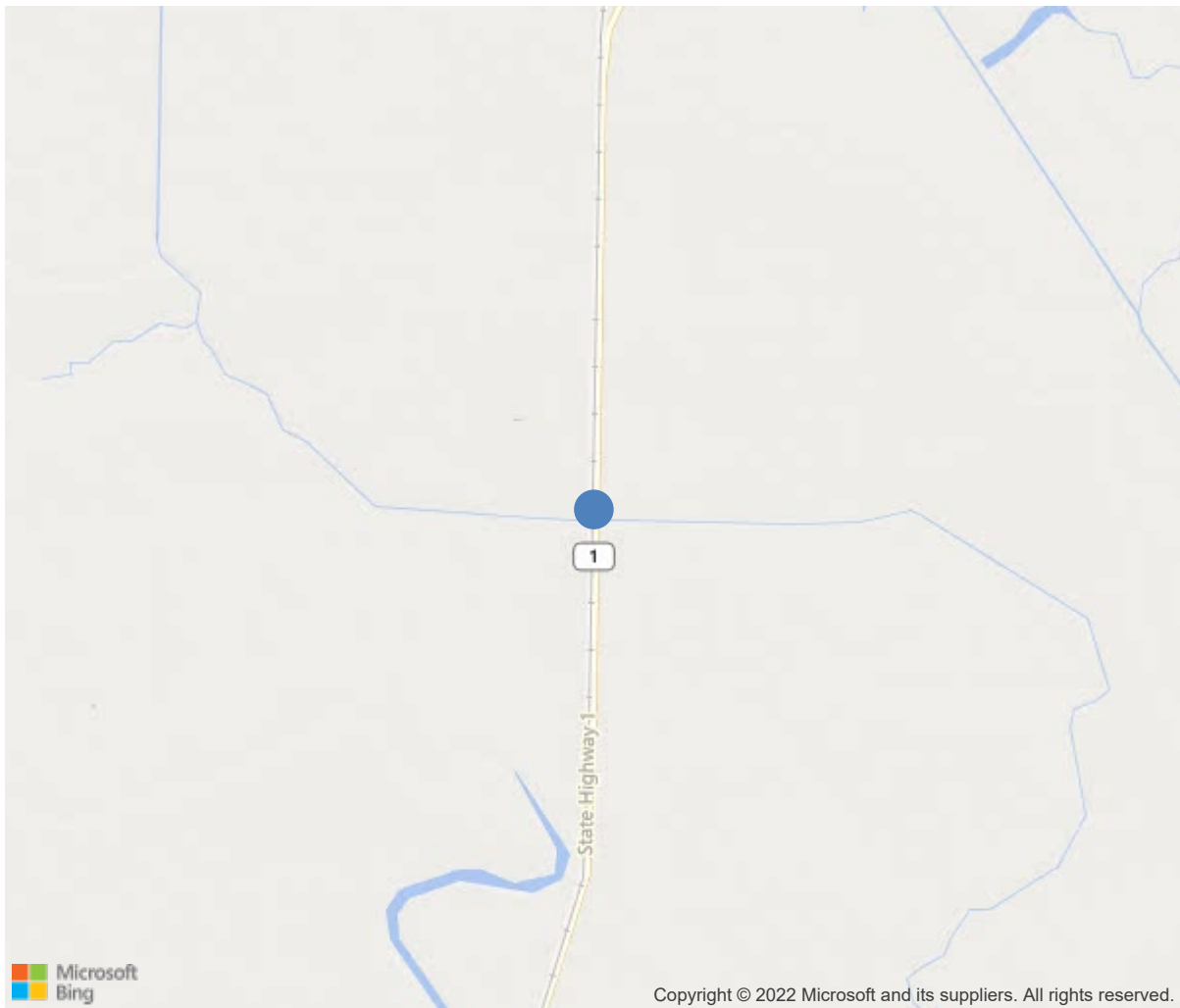
Route:1 Section:01 Log:18.45

Arnold Road ID:21x1x1xA, Arnold Log mile:18.456

District 02, Desha County

Owner: 1-State Highway Agency

4.1 Mi N SH 138-Watson



33.85359, -91.25898

Inspection Direction : S to N



Bridge #02842(Routine, Underwater type 2)

SH 1-01 LM 18.45 over Cyress Creek

Location: 4.1 Mi N SH 138-Watson

Team Lead: Sharon Hooks **Inspection Date:** January 20, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02842
(5) Inventory Route	1
(2) Highway Agency District	02
(3) County Code	41-Desha County, Arkansas
(4) Place Code	0
(6) Features Intersected	Cyress Creek
(7) Facility Carried	SH 1-01 LM 18.45
(9) Location	4.1 Mi N SH 138-Watson
(11) Mile Point	18.45 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.8535919794274
(17) Longitude	-91.2589755532477
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1-Concrete
Type	22-Channel beam
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	4
(46) No. of Approach Spans	0
(107) Deck Structure Type	2-Concrete Precast Panels
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1952
(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	620
(30) Year of ADT	2014
(109) Truck ADT	15 %
(19) Bypass, Detour Length	31 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	76 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	23 ft
(52) Deck Width Out to Out	24.6 ft
(32) Approach Roadway Width (W/Shoulders)	25.9 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	24.6 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	5-None present but re-evaluation
(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	7-Rural Major Collector
(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	6
(59) Superstructure	7
(60) Substructure	4
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(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	4
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	4
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(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	565
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			01/2021
(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	Yes		01/2022
* 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.			

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1870	1867	3	0	0
1120	Efflorescence/Rust Staining	SF	3	0	3	0	0
510	Wearing Surfaces	SF	1755	878	0	877	0
3220	Crack (Wearing Surface)	SF	877	0	0	877	0
(16)							
Deck: 24.6' wide x 76' long. Wearing surface: Asphalt overlay has large cracks at seams of units and at bents. Soffit - Span 1 Unit 4 @ 1/4 span: Some efflorescence showing across bottom of unit deck (efflorescence - CS2 3 sqft).							
110	Reinforced Concrete Open Girder/Beam	LF	532	427	105	0	0
1130	Cracking (RC and Other)	LF	105	0	105	0	0
(110)							
Girders: 7 precast units per span / Spans 1-4 - 4 spans @ 19' each = 76' total. Units are bolted transversely and longitudinally - scattered loose and missing bolts. Minor flexure cracks, mainly from 1/4 to 3/4 span points. Span 1 Unit 4 @ 1/4 span: Transverse cracking - two cracks running up both legs and across bottom of deck (crack - CS2 1').							
215	Reinforced Concrete Abutment	LF	68	65	0	3	0
1090	Exposed Rebar	LF	3	0	0	3	0
(215)							
Abutments: 34' each / Bents 1 & 5. Bent 1 has small spall with exposed rebar. Endslope - Bents 1-5: - Minor settlement (4-5" @ Bent 1, 10-12" @ Bent 5) of fill material under bottom face of cap - full length of abutment.							
228	Timber Pile	EA	20	0	8	12	0
1020	Connection	EA	11	0	7	4	0
1140	Decay/Section Loss	EA	6	0	1	5	0
1150	Check/Shake	EA	3	0	0	3	0
(228)							
Piling: 5 per bent / Bents 2-5. Bent 2 Piles 1, 2, 3, & 5, Bent 3 Pile 3, and Bent 4 Pile 3 & 5 and bent 5 pile 2-5 have all been repaired/replaced (spliced). Bent 2 pile 2 has a connection splice on top with no collar. Bent 2 Piles 1-3 Checking (CS2 x 3). Bent 2 Piles 4: has large checks with hollow area near ground line. Bent 2 Pile 5 large checks. Bent 3 Pile 1: Hollow-sounding 4' down from top (decay - CS3). Bent 3 Pile 2-4: Checking (CS2 x 3). Pile 2 has a slight bow (as-built condition). Bent 3 Pile 5: Moderate checking (CS3). Bent 3 pile 3 has splice connection with no collar.							

Team Lead: Sharon Hooks, **Inspection Date:** January 20, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent 4 Pile 1:	Hollow-sounding (decay - CS3).						
Bent 4 Pile 2:	Top 1' is hollow with a 2" core (decay - CS3). Remaining pile had minor checking.						
Bent 4 Pile 3:	Top 1' is hollow						
Bent 4 Pile 4:	Hollow from ground up 3'.						
Bent 4 Pile 5:	No notable defects.						
Bent 4 piles 3&4	have splices with no collars.						
Bent 5:	Only 10-12" of piling visible.						
Old Notes							
Bent 5 Pile 2:	Rotten - no bearing capacity . Repaired by State Forces.						
Bent 5 Pile 3:	Hollow with little to no bearing capacity decay . Repaired by State Forces.						
Bent 5 Piles 4	is hollow and crushing. Repaired by State Forces.						
Bent 5 pile 5	has heavy decay. Repaired by State Forces.						
234	Reinforced Concrete Pier Cap	LF	75	61	4	10	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	12	0	2	10	0
(234)							
Caps:	25' each / Bents 2-4.						
Bent 2:	Small areas of delaminations and spalling on bottom face of cap - reinforcing steel exposed with some rust and section loss (spall - CS2 2', exp rebar - CS2 2').						
Bent 4:	Small areas of delaminations and spalling on right ahead and bottom face of cap - reinforcing steel exposed with some rust and section loss (exp rebar - CS3 10'						
330	Metal Bridge Railing	LF	152	152	0	0	0
515	Steel Protective Coating	SF	380	0	380	0	0
3410	Chalking (Steel Protective Coatings)	SF	190	0	190	0	0
3420	Peeling/Bubbling/Cracking	SF	190	0	190	0	0
(330)							
Railing:	76' each side.						
Coating:	2.5 square feet per linear feet of railing.						
Left side railing	has chipping and flaking throughout.						
Right side railing	dull and has no luster.						



Overview of soffit and girders.



Bent 1 cap spalls with exposed rebar.



Deck overview.



Approach.

Maintenance Needs

Date Reported: 01/07/2013
Priority: G - General/ Preventive maintenance
Type of Work: N/A
Status: Monitor
Inspection Direction S to N
Component:

Deficiency Description

Endslope - Bents 1-5: - Minor settlement (4-5" @ Bent 1, 10-12" @ Bent 5) of fill material under bottom face of cap - full length of abutment.

Remarks

Pile repaired.



Endslope - Bent 1 (minor settlement)



Endslope - Bent 5 (settlement)

Date Reported: 01/14/2015
Priority: G - General/ Preventive maintenance
Type of Work: N/A
Status: Monitor
Inspection Direction S to N
Component:

Deficiency Description

Endslopes - Span 1 & 4: Vines and other vegetation growing on slopes and up piling at Bents 2 & 4.

Remarks



Endslope - Span 1 left (vegetation)



Bent 4 Pile 5 (vegetation)

Date Reported: 01/20/2017
Priority: C - Important
Type of Work: N/A
Status: Assigned
Inspection Direction S to N
Component:

Deficiency Description

Signs - Bent 5: Object markers, posts, and log mile signs are missing (have been knocked down) on both side - Object marker and broken post currently lying down behind railing on right side.

Remarks



Sign - Bent 5 right (knocked down)

Date Reported: 02/01/2011

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Inspection Direction S to N

Component:

Deficiency Description

Cap -

Bent 2: Small areas of delaminations and spalling on bottom face of cap - reinforcing steel exposed with some rust and section loss.

Bent 4: Small areas of delaminations and spalling on right ahead and bottom face of cap - reinforcing steel exposed with some rust and section loss

Remarks

Review and repair as necessary.



Bent 4 cap has spall with exposed rebar under and on edges of cap.

Date Reported: 01/14/2015
Priority: B - Pressing; 6 month completion goal
Type of Work: N/A
Status: Monitor
Inspection Direction S to N
Component:

Deficiency Description

Piling: Changed MN from "D" to "B" SDH 2021
Bent 2 Piles 4: Moderate checking with hollow area near ground line.

Bent 3 Pile 1: Hollow-sounding 4' down from top.
Bent 3 Pile 5: Moderate checking with decay.

Bent 4 Pile 1: Hollow-sounding.
Bent 4 Pile 3: Top 1' is hollow below splice.
Bent 4 Pile 4 hollow from ground up 3'.

Remarks



Date Reported: 01/20/2021
Priority: C - Important
Type of Work: Repair
Status: Open
Inspection Direction S to N
Component: Bridge

Deficiency Description

Bent 2 pile 2 splice with no collars.
Bent 3 pile 3 splice with no collars.
Bent 4 pile 2-3 splice with no collars.

Remarks



Bent 2 pile 2 no concrete collar on splice.



Bridge #02842(Routine, Underwater type 2)

SH 1-01 LM 18.45 over Cyress Creek

Location: 4.1 Mi N SH 138-Watson

Team Lead: Sharon Hooks **Inspection Date:** January 20, 2021

Inspection Comments

Beginning of structure toward US 65, South End.

Bent 5 has been repaired with the exception of pile 1. Removing other special 2020.