



Latitude:33.68737, Longitude:-91.66631

Route:138 Section:03 Log:7.7

Arnold Road ID:22x138x3xA, Arnold Log mile:7.791

District 02, Drew County

Owner: 1-State Highway Agency

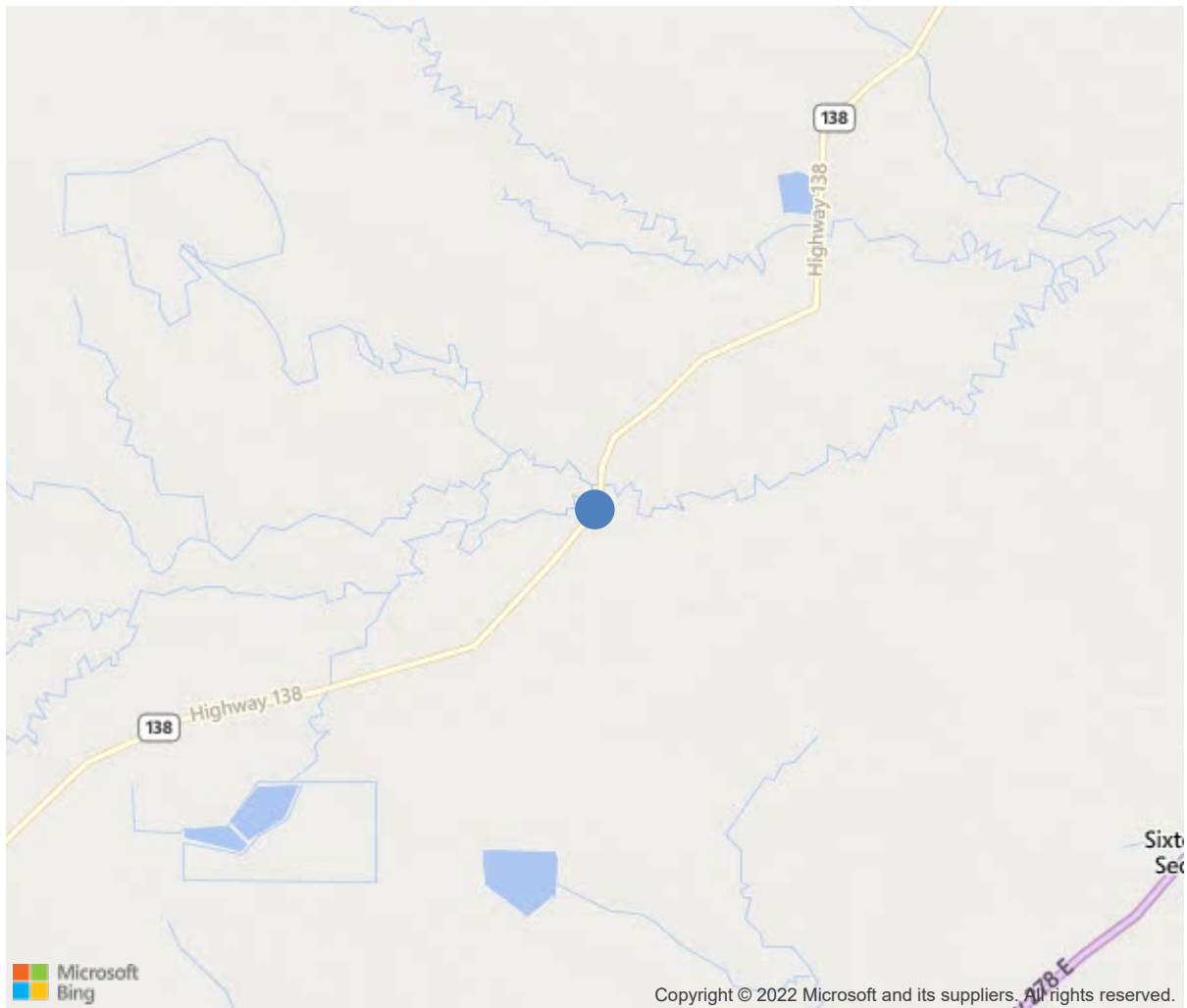


Bridge #M3078(Routine)
SH 138-03 LM 7.70 over Lower Cut-Off Creek

Location: 7.70 Mi N US278-Pine Hill

Team Lead: Greg Loomis Inspection Date: August 03, 2021

7.70 Mi N US278-Pine Hill



33.68737, -91.66631

Inspection Direction : W to E



Bridge #M3078(Routine)
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Location: 7.70 Mi N US278-Pine Hill

Team Lead: Greg Loomis Inspection Date: August 03, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	M3078
(5) Inventory Route	138
(2) Highway Agency District	02
(3) County Code	43-Drew County, Arkansas
(4) Place Code	0
(6) Features Intersected	Lower Cut-Off Creek
(7) Facility Carried	SH 138-03 LM 7.70
(9) Location	7.70 Mi N US278-Pine Hill
(11) Mile Point	7.7 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.6873684054356
(17) Longitude	-91.6663057404094
(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	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	2-Concrete Precast Panels
(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	1967
(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	1100
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	17 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	17.5 ft
(49) Structure Length	38.8 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	25 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 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	7
(59) Superstructure	6
(60) Substructure	4
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	0-Other or Unknown
(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	2
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	6
(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	886
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			08/2021
(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: Greg Loomis, **Inspection Date:** August 03, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	953	953	0	0	0
(16)	Deck: 25'-1" wide x 38' long = 953 sqft. Joints are completely grouted and grout is in good condition.						
110	Reinforced Concrete Open Girder/Beam	LF	266	253	0	13	0
1090	Exposed Rebar	LF	13	0	0	13	0
(110)	Girders: 7 precast channel beam units per span / Spans 1 & 2 (19' each = 38' total). Units are bolted longitudinally and transversely - no noted missing or loose bolts. Small vertical and horizontal cracks in channel legs. Span 1 Unit 7: Spall with exposed rebar and cracking at mid-span. Span 2 Unit 1: Small spall with exposed rebar at mid-span.						
216	Timber Abutment	LF	64	64	0	0	0
(216)	Backwalls: 32' each / Bents 1 & 3.						
228	Timber Pile	EA	15	0	7	5	3
1020	Connection	EA	4	0	4	0	0
1140	Decay/Section Loss	EA	8	0	3	2	3
1150	Check/Shake	EA	3	0	0	3	0
(228)	Pile: 5 per bent / Bents 1-3. Bent 1 Pile 1: Some small hollow/decayed areas – CS2 decay. Bent 1 Pile 2: Hollow/decayed from cap down to ground – REDUCED BEARING CAPACITY – CS4 decay. Bent 1 Pile 3: Hollow/decayed from cap down to ground – REDUCED BEARING CAPACITY – CS4 decay. Bent 1 Pile 4: Hollow/decayed from cap down 1' – REDUCED BEARING CAPACITY – CS4 decay. Bent 1 Pile 5: Hollow-sounding with some checking – CS2 decay. Bent 2 Pile 1: Repaired/replaced by state forces – CS2 connection. Bent 2 Pile 2: Large-sized checking with some surface decay at water line – CS3 checking. Bent 2 Pile 3: Large-sized checking with some light surface decay at water line – CS3 checking. Bent 2 Pile 4: Large-sized checking with some surface decay at water line – CS3 checking. Bent 2 Pile 5: Repaired/replaced by state forces – CS2 connection. Bent 3 Pile 1: Repaired/replaced by state forces – CS2 connection. Bent 3 Pile 2: Hollow/decayed from cap down 2' with some surface decay on right side – CS3 decay. Bent 3 Pile 3: Hollow/decayed from cap down to ground – CS3 decay. Bent 3 Pile 4: Some hollow/decayed areas from cap down 2' – CS2 decay. Bent 3 Pile 5: Repaired/replaced by state forces – CS2 connection.						
234	Reinforced Concrete Pier Cap	LF	80	77	3	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(234)							

Team Lead: Greg Loomis, **Inspection Date:** August 03, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Cap: 26.5' each / Bents 1-3. Bent 1 @ Pile 4: Minor vertical crack - 1' CS2 crack. Bent 2 ahead @ Unit 2: Minor vertical crack - 1' CS2 crack. Bent 3 @ Unit 6: Minor vertical crack - 1' CS2 crack.							
301	Pourable Joint Seal	LF	25	0	20	5	0
2350	Debris Impaction	LF	25	0	20	5	0
(301)							
Joints: 25' each / Bent 2. Joint filled with loose gravel and debris.							
330	Metal Bridge Railing	LF	76	76	0	0	0
515	Steel Protective Coating	SF	190	0	190	0	0
3410	Chalking (Steel Protective Coatings)	SF	190	0	190	0	0
(330)							
Railing: 38' each side. Coating: 2.5 square feet per linear feet of railing. Metal rail on concrete posts. Railing is dull and has no luster and primer is beginning to show through.							



Roadway view



Deck - Spans 1-2: Typical



Soffit - Span 1: Typical

Maintenance Needs

Date Reported: 08/20/2019
Priority: A - Safety deficiency; requires prompt action
Type of Work: Repair
Status: Assigned
Inspection Direction W to E
Component: 228 - Timber Pile

Deficiency Description

Piling -

Bent 1 Pile 2: Hollow/decayed from cap down to ground – REDUCED BEARING CAPACITY – CS4 decay.

Bent 1 Pile 3: Hollow/decayed from cap down to ground – REDUCED BEARING CAPACITY – CS4 decay.

Bent 1 Pile 4: Hollow/decayed from cap down 1' – REDUCED BEARING CAPACITY – CS4 decay.

Bent 3 Pile 2: Hollow/decayed from cap down 2' with some surface decay on right side – CS3 decay.

Bent 3 Pile 3: Hollow/decayed from cap down to ground – CS3 decay.

Changed from B to A JRB 2020.

Remarks

1/28/2021 checked on bridge water to high to make repairs. CRM per JRB



Bent 1 pile 2 hollow from cap down to ground line.



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Team Lead: Greg Loomis Inspection Date: August 03, 2021

Date Reported: 08/20/2019
Priority: C - Important
Type of Work: Repair
Status: Assigned
Inspection Direction W to E
Component: 228 - Timber Pile

Deficiency Description

Piling -

Bent 1 Pile 1: Some small hollow/decayed areas – CS2 decay.

Bent 1 Pile 5: Hollow-sounding with some checking – CS2 decay.

Bent 2 Pile 2: Large-sized checking with some surface decay at water line – CS3 checking.

Bent 2 Pile 3: Large-sized checking with some light surface decay at water line – CS3 checking.

Bent 2 Pile 4: Large-sized checking with some surface decay at water line – CS3 checking.

Bent 3 Pile 4: Some hollow/decayed areas from cap down 2' – CS2 decay.

Remarks



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Team Lead: Greg Loomis Inspection Date: August 03, 2021

Date Reported: 08/20/2019
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: 110 - Reinforced Concrete Open Girder/Beam

Deficiency Description

Girders (precast channel beam legs) -
Span 1 Unit 7: Spall with exposed rebar and cracking at mid-span.
Span 2 Unit 1: Small spall with exposed rebar at mid-span.
Some cracking/delaminations in various locations.

08-03-2021 GGL-PRD: Changed priority from "C" to "D".

Remarks



Girder 7 left leg has large cracking on channel legs.



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Team Lead: Greg Loomis **Inspection Date:** August 03, 2021

Inspection Comments

Bridge is logged from west to east (southwest to northeast).
Beginning of structure toward US 278, Monticello, South End.

08-03-2021 GGL-PRD: Added 12-month OSR inspection to monitor condition of substructure (piling decay) - NBI rating < 5.

06-26-2007, Dropping UW inspection due to sub-str. elements are not continuously submerged. High water events occur. NBI Items

#60 and #61 will represent all elements that occasionally stand in water. RLW.

Item 113 changed from U to 5. See Bridge Scour Assessment Procedure Worksheet. (DMH 11/15/10)