



Latitude:33.80837, Longitude:-91.34300

Route:138 Section:04 Log:8.27

Arnold Road ID:21x138x4xA, Arnold Log mile:8.299

District 02, Desha County

Owner: 1-State Highway Agency

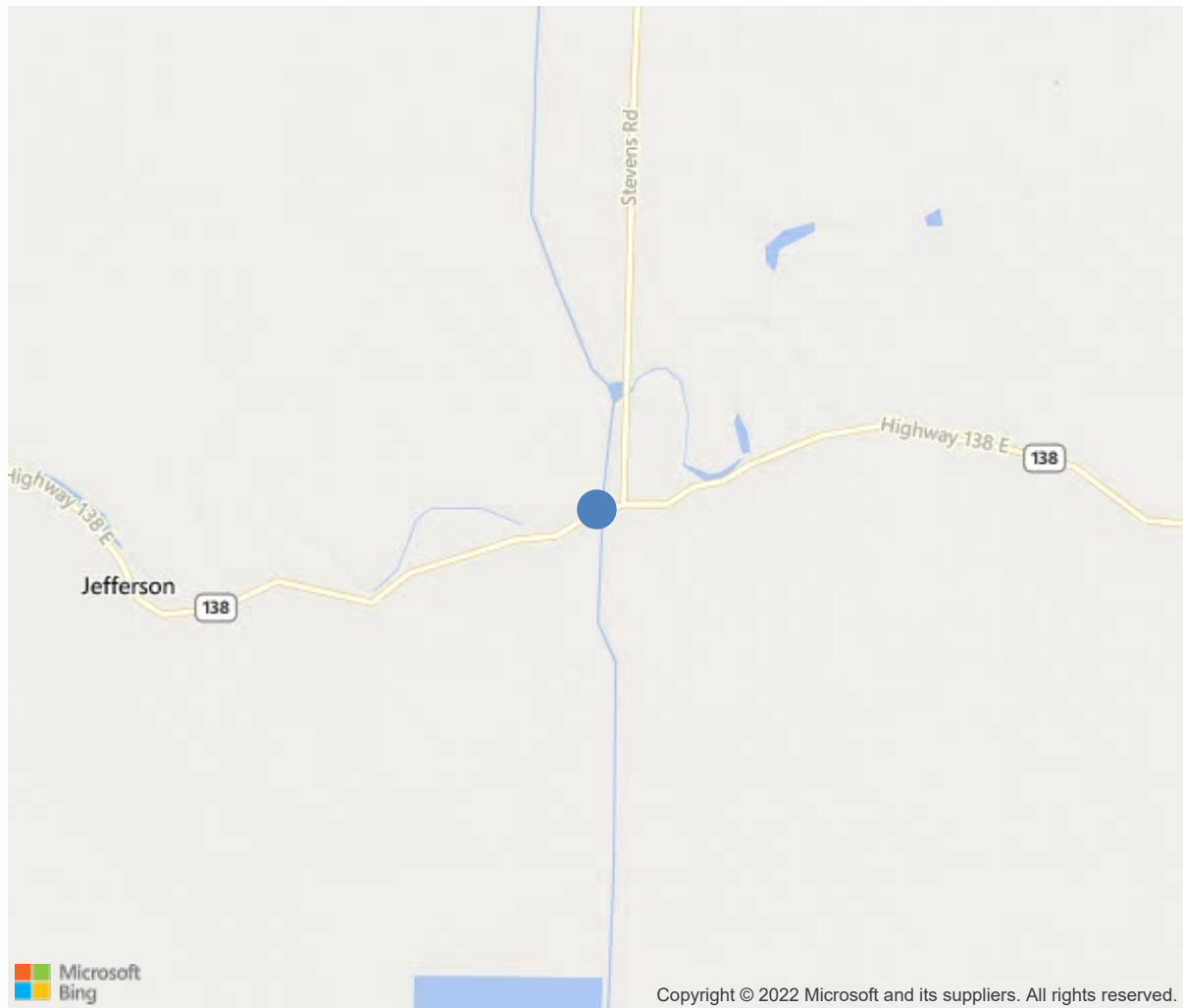


Bridge #03404(Routine)
SH 138-04 LM 8.27 over Canal Number 43

Location: 4.6 Mi W SH 1-Kelso

Team Lead: Sharon Hooks **Inspection Date:** January 21, 2020

4.6 Mi W SH 1-Kelso



33.80837, -91.34300



Bridge #03404(Routine)
SH 138-04 LM 8.27 over Canal Number 43

Location: 4.6 Mi W SH 1-Kelso

Team Lead: Sharon Hooks Inspection Date: January 21, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03404
(5) Inventory Route	138
(2) Highway Agency District	02
(3) County Code	41-Desha County, Arkansas
(4) Place Code	0
(6) Features Intersected	Canal Number 43
(7) Facility Carried	SH 138-04 LM 8.27
(9) Location	4.6 Mi W SH 1-Kelso
(11) Mile Point	8.27 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.8083689918378
(17) Longitude	-91.3429988908767
(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	8
(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	1961
(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	310
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	24 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	251 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	26.2 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 ft
(33) Bridge Median	0-No median
(34) Skew	20 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.6 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	6
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	51
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	8
Rating	31
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	6
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	5
(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	231
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			01/2020
(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: Sharon Hooks, **Inspection Date:** January 21, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	6526	1473	2524	2529	0
1080	Delamination/Spall/Patched Area	SF	33	0	14	19	0
1190	Abrasion/Wear (PSC/RC)	SF	5020	0	2510	2510	0
(16)							
Deck: 26' wide x 251' long. Joints are completely grouted and grout is in good condition except for some deterioration and spalling of grout in key-ways at ends of spans in various locations.							
Span 1 Unit 2, Span 2 Unit 6, Span 4 Units 2 & 6, Span 6 Units 2 & 6, and Span 7 Unit 6 have some delaminations and cracking along sides of units close to ends of spans.							
Abrasive wear with scattered loss of course aggregates in all units - except the exteriors (1/2 CS3, 1/2 CS2).							
110	Reinforced Concrete Open Girder/Beam	LF	1736	1736	0	0	0
(110)							
Girders: 7 precast units (31' units) per span / Spans 1-8. Units are bolted transversely and longitudinally - no noted missing or loose bolts except that there are no longitudinal bolts at Bents 4 & 6.							
215	Reinforced Concrete Abutment	LF	72	70	2	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
(215)							
Abutments: 36'each / Bents 1 & 9. Abutment 1 has small contact spalls under channel legs.							
227	Reinforced Concrete Pile	EA	28	27	1	0	0
1090	Exposed Rebar	EA	1	0	1	0	0
(227)							
Pile: 4 per bent / Bents 2-8. NOTE: Plans show estimated pile lengths for all interior bents to be 55'. Bent 3 Pile 1-4 all have very small scrapes from placement of scour counter measures (rock rip-rap). Bent 5 Pile 3: Middle of pile has delamination and exposed rebar where extension was poured.							
234	Reinforced Concrete Pier Cap	LF	210	207	3	0	0
1080	Delamination/Spall/Patched Area	LF	3	0	3	0	0
(234)							
Cap: 30' each (skewed) / Bents 1-7. Bent 3 & 6 have small contact spalls under channel legs.							
304	Open Expansion Joint	LF	168	0	150	18	0
2350	Debris Impaction	LF	168	0	150	18	0
(304)							

Location: 4.6 Mi W SH 1-Kelso

Team Lead: Sharon Hooks, **Inspection Date:** January 21, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Open Joint Seals; 24' bents 2-8.							
All joint seals have some debris impaction.							
330	Metal Bridge Railing	LF	502	502	0	0	0
515	Steel Protective Coating	SF	1255	1255	0	0	0
(330)							
Rail: 251 each side							
Coating: 2.5 square feet per linear feet of railing.							
Several areas on left and right rails and post repairs implemented.							



Concrete railing post damage at span 8 near bent 9.



Gaurdrailing and concrete post damage at bent 9 left side ..



Spalls at ends of top flange deck slabs.



Deck over view..



Approach.

Maintenance Needs

Date Reported: 01/21/2014

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Component:

Deficiency Description

Deck - all spans: Some deterioration and spalling of grout in key-ways at ends of spans in various locations.

Span 1 Unit 2, Span 2 Unit 6, Span 4 Units 2 & 6, Span 6 Units 2 & 6, and Span 7 Unit 6 have some delaminations and cracking along sides of units close to ends of spans.

Remarks



Deck - Bent 3: Spalls



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Team Lead: Sharon Hooks Inspection Date: January 21, 2020

Date Reported: 01/26/2016
Priority: C - Important
Type of Work: N/A
Status: Assigned
Component:

Deficiency Description

Sign - Bent 1 right: Log mile sign missing - object marker and post in place.

Remarks

repair, advise when complete



Roadway view



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Location: 4.6 Mi W SH 1-Kelso

Team Lead: Sharon Hooks Inspection Date: January 21, 2020

Date Reported: 01/31/2018

Priority: D- Routine

Type of Work: N/A

Status: Assigned

Component:

Deficiency Description

Approach roadway - Bent 8: Wearing surface is deteriorating with several moderate- to large-sized cracks and some settlement (1-1.5") in right lane.

Remarks



Approach roadway - Bent 8: Drop off

Date Reported: 01/31/2018
Priority: G - General/ Preventive maintenance
Type of Work: N/A
Status: Assigned
Component:

Deficiency Description

Endslopes - Bent 6-8: Small trees, bushes, and other vegetation growing underneath bridge.
Vines growing up pile at Bent 6 right.

Remarks

Some trees at abutment have been removed but other trees remain and need to be removed.



Bent 6 - Trees and vines

Date Reported: 01/31/2018

Priority: D- Routine

Type of Work: N/A

Status: Monitor

Component:

Deficiency Description

Channel - Bent 4: Some build-up of logs, limbs, and other debris against pile on left side.

Remarks



Channel - Bent 4: Debris



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Team Lead: Sharon Hooks Inspection Date: January 21, 2020

Date Reported: 01/21/2020
Priority: C - Important
Type of Work: Repair
Status: Open
Component: Bridge

Deficiency Description

Concrete posting and metal post damage near bent 9 both sides.

Remarks



Concrete post and railing damage.



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Inspection Comments

Beginning of structure toward US 65, West End.03-13-2008, Dropping UW inspection due to sub-str. elements are not continuously submerged. Channel scour at bent 3 and under Span 2.
NBI Items #60 and #61 will represent all elements. RLW.

Deck Notes

Underside of Deck:
Wearing Surface:
Railing:

Substructure Notes

Bridge Seat:
Piles: