



Latitude:34.70573, Longitude:-91.55586

Route:63 Section:11 Log:8.69

Arnold Road ID:59x63x11xA, Arnold Log mile:8.749

District 06, 117 - Prairie County

Owner: 1 - State Highway Agency

### Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

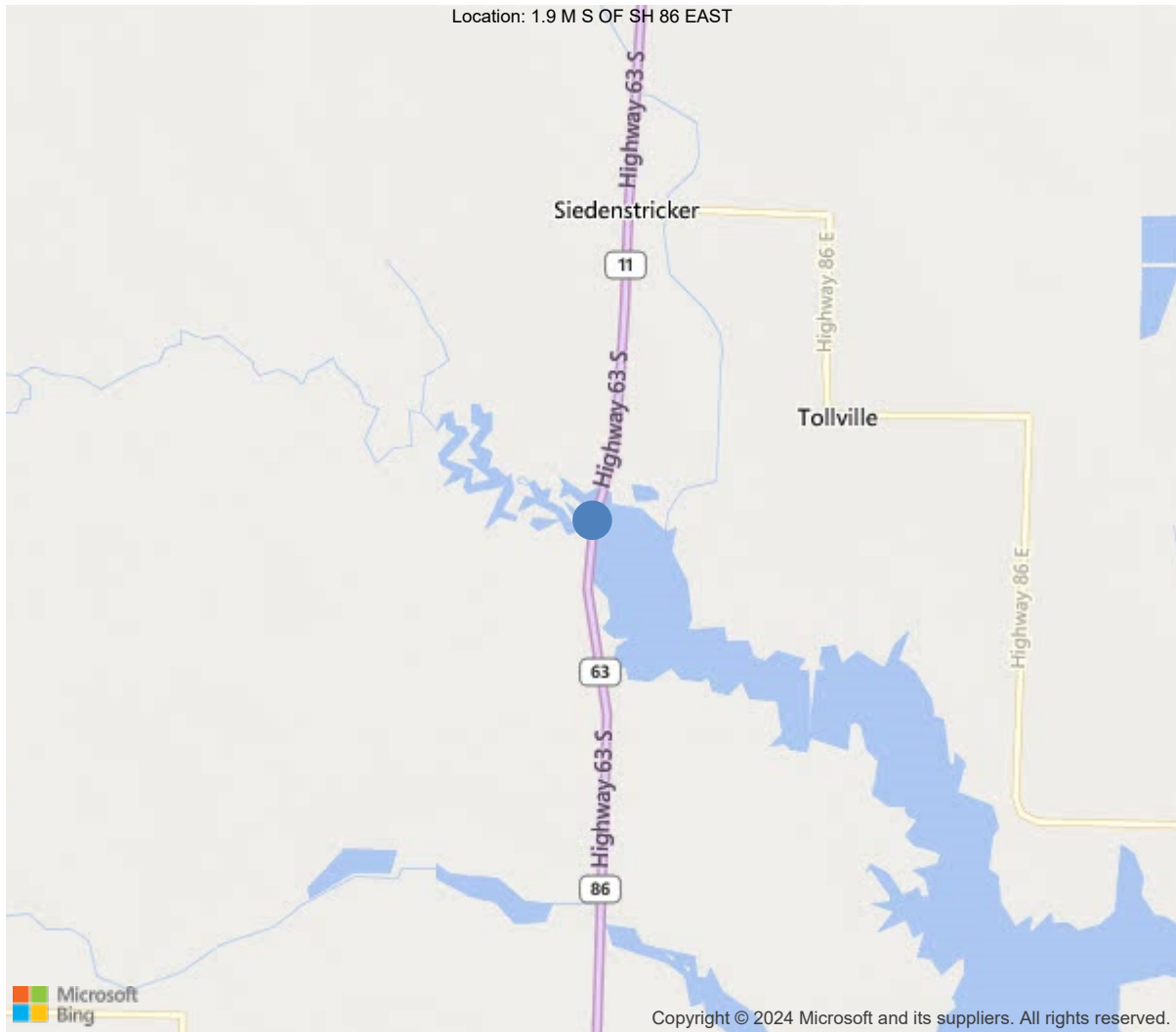
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	29		
Code 9 (31 Tons)	34		
Code 5 (40 Tons)	45		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



34.70573, -91.55586



Asset #01859(Routine)

## US 63 Log 8.69 over LAGRUE CREEK RELIEF

Location: 1.9 M S OF SH 86 EAST

Team Lead: Bryan Saunders, Inspection Date: 05/23/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	01859
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	117 - Prairie County
(4) Place Code	0
(6) Features Intersected	LAGRUE CREEK RELIEF
(7) Facility Carried	US 63 Log 8.69
(9) Location	1.9 M S OF SH 86 EAST
(11) Mile Point	8.69 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000063110
(16) Latitude	34.70573
(17) Longitude	-91.55586
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3 - Steel
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	4
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(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	1934
(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	3700
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	8 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	101 ft
(50) Curb or Sidewalk Width	
Left	0.8 ft
Right	0.8 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	25.5 ft
(32) Approach Roadway Width (W/Shoulders)	29.9 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - 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 w
(111) Pier Protection	1 - Navigation protection not
(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	6 - Rural Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(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
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	5
(59) Superstructure	4
(60) Substructure	5
(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	48
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	29
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined to
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	128 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 156
(96) Total Project Cost	\$ 454
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	4362
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	05/23/2023		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
<p>* 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.</p>			





**General Observation**

Underwater performed by probing from boat.

Channel profile added 5-11-21

Section loss sketch linked.

small boat need for inspection.

Logged South bound.

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**A-51 - Inspection Direction (2 - S to N)**

Approach looking south

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**A-55 - Deck Washing Needed (Y)**

gravel and dirt in both gutter lines

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**A-56 - Joint Cleaning/Flushing Needed (Y)**

joints filled with asphalt

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**A-57 - Beam End and Bearing Painting Needed (Y)**

beam ends have active corrosion and deep pitting and laminated rust

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**A-58 - Cap Cleaning/Flushing Needed (Y)**

Caps have dirt and debris around bearings

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**A-60 - Full Beam Painting Needed (Y)**

beam ends have active corrosion and deep pitting and laminated rust

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## US 63 Log 8.69 over LAGRUE CREEK RELIEF

**Location: 1.9 M S OF SH 86 EAST**

**Team Lead:** Bryan Saunders, **Inspection Date:** 05/23/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	2436	1732	583	121	0
1080	Delamination/Spall/Patched Area	SF	91	0	18	73	0
1090	Exposed Rebar	SF	48	0	0	48	0
1130	Cracking (RC and Other)	SF	565	0	565	0	0
510	Wearing Surfaces	SF	2400	2342	54	4	0
3210	Delam/Spall/Patched Area/Pothole	SF	58	0	54	4	0
<p>(12) The bottom of the deck has Spalls with exposed rebar in all spans. All spans have transverse cracks with rust stains.  Bent 3 &amp; 4: asphalt material is falling through joint leaving a pot hole in the roadway surface</p> <p>(510-12) patched areas over joints have spalls</p>							
107	Steel Open Girder/Beam	LF	508	0	270	232	6
1000	Corrosion	LF	508	0	270	232	6
515	Steel Protective Coating	SF	2710	0	650	1359	701
3440	Effectiveness (Steel Protective Coatings)	LF	2710	0	650	1359	701
<p>(107) Beam ends at bents 1,2,3,4 &amp; 5 have active rust with moderate pitting. All beams have moderate freckled rust on the top and bottom flanges</p> <p>Bent 1 beam 1 has a 3" hole in bottom of web. Bottom flange on right side is down to a knives edge.  Beam 2 has up to 1/8 section loss to lower web an bottom flange  Beam 3 has pitting up to 1/8"  Beam 4 bottom flange knife edge</p> <p>Bent 2 span 1 beam 2 has a one 1" x 2" hole in the upper web. Top flange is down to a knives edge.  Bent 2 span 1 beam 3 has pitting and laminated rust  Bent 2 span 1 beam 4 has a one 1" hole in the upper web.  Bent 2 span 2 beam 1,2,3 and 4 have pitting to bottom side of lower flange 4 being worst case  Bent 3 span 2 beam 1 has section loss on the right bottom flange is down to a knives edge.  Bent 3 span 2 beam 5 has section loss on the left bottom flange only 1/4" remains  Bent 4, span 4, girder 1: upper web has a 1 inch hole and the upper flange has lost section to a knives edge  Bent 4, span 4, girder 2: bottom flange from the bearing out 3" has section loss up to 1/4" due to corrosion. Similar condition at girder 3</p> <p>Bent 5 beams 2 &amp; 5 have been repaired by state forces.</p> <p>(515-107) paint system has failed</p>							
215	Reinforced Concrete Abutment	LF	96	88	8	0	0
1130	Cracking (RC and Other)	LF	8	0	8	0	0
(215) small cracks in both abutments							
227	Reinforced Concrete Pile	EA	15	3	12	0	0
1190	Abrasion/Wear (PSC/RC)	EA	12	0	12	0	0
(227) 3 pile added from erosion action exposing pile at bent 5							



## US 63 Log 8.69 over LAGRUE CREEK RELIEF

**Location: 1.9 M S OF SH 86 EAST**

**Team Lead:** Bryan Saunders, **Inspection Date:** 05/23/2023

## Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	2436	1732	583	121	0
1080	Delamination/Spall/Patched Area	SF	91	0	18	73	0
1090	Exposed Rebar	SF	48	0	0	48	0
1130	Cracking (RC and Other)	SF	565	0	565	0	0
510	Wearing Surfaces	SF	2400	2342	54	4	0
3210	Delam/Spall/Patched Area/Pothole	SF	58	0	54	4	0
(12) The bottom of the deck has Spalls with exposed rebar in all spans. All spans have transverse cracks with rust stains. Bent 3 & 4: asphalt material is falling through joint leaving a pot hole in the roadway surface  (510-12) patched areas over joints have spalls							



## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	508	0	270	232	6
1000	Corrosion	LF	508	0	270	232	6
515	Steel Protective Coating	SF	2710	0	650	1359	701
3440	Effectiveness (Steel Protective Coatings)	LF	2710	0	650	1359	701
(107) Beam ends at bents 1,2,3,4 & 5 have active rust with moderate pitting. All beams have moderate freckled rust on the top and bottom flanges							
Bent 1 beam 1 has a 3" hole in bottom of web. Bottom flange on right side is down to a knives edge. Beam 2 has up to 1/8 section loss to lower web an bottom flange Beam 3 has pitting up to 1/8" Beam 4 bottom flange knife edge							
Bent 2 span 1 beam 2 has a one 1" x 2" hole in the upper web. Top flange is down to a knives edge.							
Bent 2 span 1 beam 3 has pitting and laminated rust							
Bent 2 span 1 beam 4 has a one 1" hole in the upper web.							
Bent 2 span 2 beam 1,2,3 and 4 have pitting to bottom side of lower flange 4 being worst case							
Bent 3 span 2 beam 1 has section loss on the right bottom flange is down to a knives edge.							
Bent 3 span 2 beam 5 has section loss on the left bottom flange only 1/4" remains							
Bent 4, span 4, girder 1: upper web has a 1 inch hole and the upper flange has lost section to a knives edge							
Bent 4, span 4, girder 2: bottom flange from the bearing out 3" has section loss up to 1/4" due to corrosion. Similar condition at girder 3							
Bent 5 beams 2 & 5 have been repaired by state forces.							
(515-107) paint system has failed							

## US 63 Log 8.69 over LAGRUE CREEK RELIEF

**Location: 1.9 M S OF SH 86 EAST**

**Team Lead:** Bryan Saunders, **Inspection Date:** 05/23/2023

## Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	96	88	8	0	0
1130	Cracking (RC and Other)	LF	8	0	8	0	0
(215) small cracks in both abutments							
227	Reinforced Concrete Pile	EA	15	3	12	0	0
1190	Abrasion/Wear (PSC/RC)	EA	12	0	12	0	0
(227) 3 pile added from erosion action exposing pile at bent 5							
234	Reinforced Concrete Pier Cap	LF	72	54	12	6	0
1090	Exposed Rebar	LF	8	0	2	6	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(234) Spalls with exposed rebar on the ends of bents 3 and 4. Bent 4 ahead right spall with rebar							



Elevation



Approach looking south



upstream



downstream





Deck view



Soffit view



patched areas over joints have spalls



Bent 5 erosion





Bent 3 span 2 beam 1 right side lower flange to knife edge



Bent 3 cap



Bent 3 span 2 beam 5



Bent 2 beam 4 1" hole at upper web laminated rust at lower web and flange





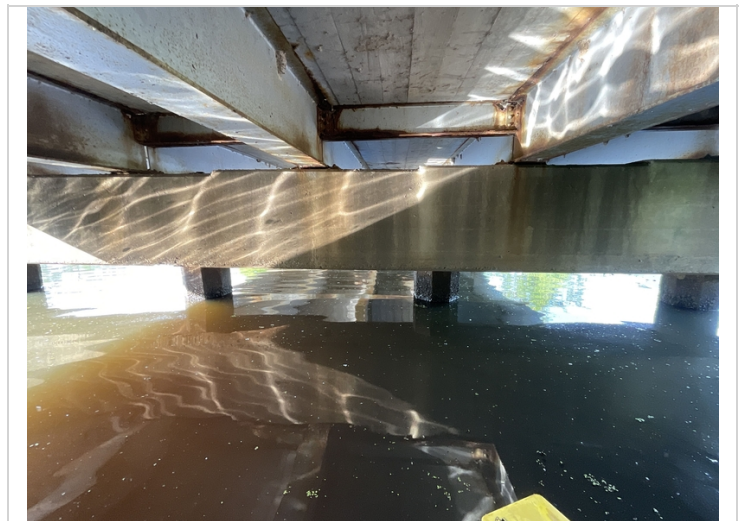
Bent 2 beam 2 3"x2" hole at top web and laminated rust at lower web and flange



Bent 2 span 2 beam 4



Bent 1 beam 1 has a 3"x6" hole and the lower web is a knife edge



Columns have heavy abrasion starting 1' from bottom of cap down





Large spalls with rebar in the soffit  
Span 1 between beam 3 and 4 large spall with rebar



Bent 1 beam ends have deep pitting and laminated rust



Bent 1 beam 2 has up to 1/8" pitting to the lower web



Bent 4 ahead right spall with rebar



Bent 5 beam 1



### Maintenance Needs

Date Reported: 05/23/2018

Priority: B - Pressing

Type of Work: Repair (General)

Status: Forward State

Component: Element

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### Deficiency Description

Bent 1 beam 1 has a 3" hole in bottom of web. Bottom flange on right side is down to a knives edge.

Bent 2 span 1 beam 2 has a one 1" x 2" hole in the upper web. Top flange is down to a knives edge.

Bent 2 span 1 beam 4 has a one 1" hole in the upper web.

Bent 3 span 2 beam 1 has section loss on the right bottom flange is down to a knives edge.

Bent 3 span 2 beam 5 has section loss on the left bottom flange only 1/4" remains

Bent 4, span 4, girder 1: upper web has a 1 inch hole and the upper flange has lost section to a knives edge

Bent 4, span 4, girder 2: bottom flange from the bearing out 3" has section loss up to 1/4" due to corrosion. Similar condition at girder 3

Beam ends at bents 1,2,3,4 & 5 have active rust with moderate pitting.

### Remarks

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Bent 2 beam 4 1" hole at upper web laminated rust at lower web and flange



Bent 2 beam 2 3"x2" hole at top web and laminated rust at lower web and flange





Bent 1 beam 1 has a 3"x6" hole and the lower web is a knife edge



Bent 1 beam 1 has 8' corrosion



Bent 5 beam 1



Span 4, bent 4, beam 1: hole in the upper web and the top flange has section loss to a knives edge.





Span 1, bent 2, girder 1: top flange with section loss to a knife edge for approximately 2 foot in length.



Span 1, bent 2, beam 2: hole in the upper web due to severe section loss to the web and the top flange.



Span 1, bent 1, beam 1: a 1 inch hole in the lower web adjacent to a previous section loss repair. The repair and bottom flange have section loss to them.



Span 2 girder 2 1" hole in upper web





Span 4, bent 4 girder 1



Bent 4, span 4, girder 1: upper web has a 1 inch hole and the upper flange has lost section to a knives edge



Span 2 beam 1 at bent 3



Bent 3 span 2 beam 1 has section loss on the right bottom flange is down to a knives edge

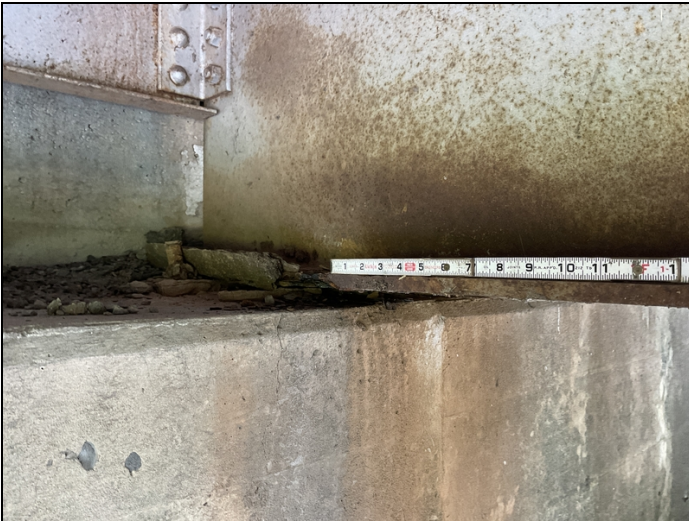


Bent 2 span 1 beam 2 has a 1" x 2" hole in the upper web. Top flange is down to a knives edge.



Bent 2 span 1 beam 4 has a one 1" hole in the upper web.





Bent 1 beam 4 bottom flange has section loss on the right bottom flange only 1/8" remains



Bent 1 beam 1 has a 3" hole in bottom of web. Bottom flange on right side is down to a knives edge.



Asset #01859(Routine)

US 63 Log 8.69 over LAGRUE CREEK RELIEF

Location: 1.9 M S OF SH 86 EAST

Team Lead: Bryan Saunders, Inspection Date: 05/23/2023

#### Maintenance Needs

Date Reported: 05/31/2023

Priority: B - Pressing

Type of Work: Deck Repair

Status: Open

Component: Deck

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#### Deficiency Description

Pothole in asphalt overlay at bent 5 located at north end of bridge.

#### Remarks

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Pothole at bent 5



**Maintenance Needs**

**Date Reported:** 05/07/2019

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 1 - Clean

**Status:** Assigned

**Component:** Substructure

**Deficiency Description**

Bent 3: large amount of asphalt debris atop of cap and bottom flanges between girders 3 + 4. Similar condition at bent 4

**Remarks**



Bent 3: large amount of asphalt debris atop of cap and bottom flanges between girders 3 + 4. Similar condition at bent 4



Bent 4: asphalt material is falling through joint leaving a bump in the roadway surface



Bent 3: large amount of asphalt debris atop of cap and bottom flanges between girders 3&4. Similar condition at bent 4



Bent 3: large amount of asphalt debris atop of cap and bottom flanges between girders 3&4. Similar condition at bent 4



**Maintenance Needs**

**Date Reported:** 05/12/2021

**Priority:** C - Important

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Approach

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**Deficiency Description**

Erosion has caused a void in the right side of approach roadway at south end of bridge

**Remarks**

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Erosion at bent 5 exposing 3 piles



Erosion has caused a void in the right side of approach roadway at south end of bridge



**Maintenance Needs**

**Date Reported:** 06/26/2012

**Priority:** D- Routine

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Deck

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**Deficiency Description**

Soffit on all spans has large spalls with rebar exposed.

**Remarks**

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Span 1 soffit between girders 3 & 4: large spall with exposed rebar



Span 1 large spall with exposed rebar



Span 1 soffit



## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	Yes
A-56 - Joint Cleaning/Flushing Needed	Yes
A-57 - Beam End and Bearing Paint Needed	Yes
A-58 - Cap Cleaning/Flushing Needed	Yes
A-59 - Joint Repair Needed	Yes
A-60 - Full Beam Painting Needed	Yes
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	No
A-63 Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	

**A-54 - Sealable Deck Cracks (No)**

**A-55 - Deck Washing Needed (Yes)**  
gravel and dirt in both gutter lines

**A-56 - Joint Cleaning/Flushing Needed (Yes)**  
joints filled with asphalt

**A-57 - Beam End and Bearing Painting Needed (Yes)**

beam ends have active corrosion and deep pitting and laminated rust

**A-58 - Cap Cleaning/Flushing Needed (Yes)**

Caps have dirt and debris around bearings



Bent 3 cap

**A-59 - Joint Repair Needed (Yes)**



patched areas over joints have spalls

**A-60 - Full Beam Painting Needed (Yes)**

beam ends have active corrosion and deep pitting and laminated rust





**Asset #01859**(Routine)

**US 63 Log 8.69 over LAGRUE CREEK RELIEF**

**Location: 1.9 M S OF SH 86 EAST**

**Team Lead: Bryan Saunders, Inspection Date: 05/23/2023**

**A-61 - Polymer Overlay Advised (No)**

**A-62 - Hydro and LMC Advised (No)**

**A-63 - Missing/Incorrect Log Mile Signage (No)**

**A-64 - Vegetation Removal Requested**



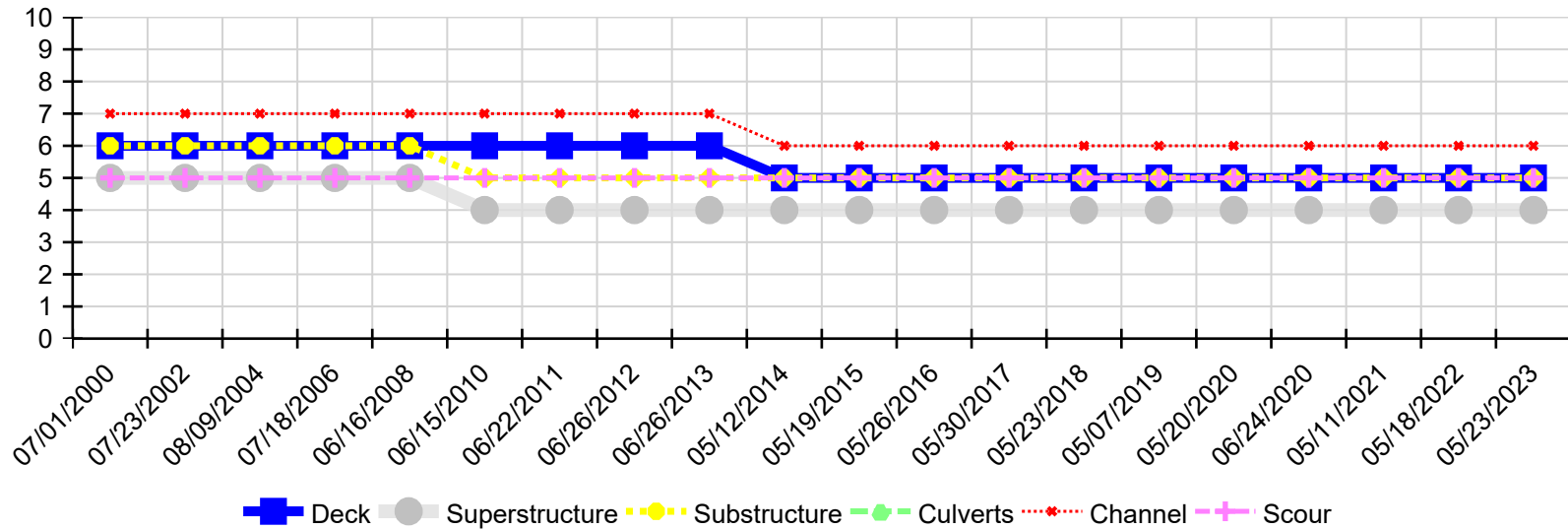
Asset #01859(Routine)

US 63 Log 8.69 over LAGRUE CREEK RELIEF

Location: 1.9 M S OF SH 86 EAST

Team Lead: Bryan Saunders, Inspection Date: 05/23/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/23/2023	5	4	5	N	6	5
05/18/2022	5	4	5	N	6	5
05/11/2021	5	4	5	N	6	5
06/24/2020	5	4	5	N	6	5
05/20/2020	5	4	5	N	6	5
05/07/2019	5	4	5	N	6	5
05/23/2018	5	4	5	N	6	5
05/30/2017	5	4	5	N	6	5
05/26/2016	5	4	5	N	6	5
05/19/2015	5	4	5	N	6	5
05/12/2014	5	4	5	N	6	5
06/26/2013	6	4	5	N	7	5
06/26/2012	6	4	5	N	7	5
06/22/2011	6	4	5	N	7	5
06/15/2010	6	4	5	N	7	5
06/16/2008	6	5	6	N	7	5
07/18/2006	6	5	6	N	7	5
08/09/2004	6	5	6	N	7	5
07/23/2002	6	5	6	N	7	5
07/01/2000	6	5	6	N	7	5