Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Latitude:36.00109, Longitude:-91.25844

Route:25 Section:06 Log:10.5

Arnold Road ID:38x25x6xA, Arnold Log mile:10.493

District 10, 75 - Lawrence County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

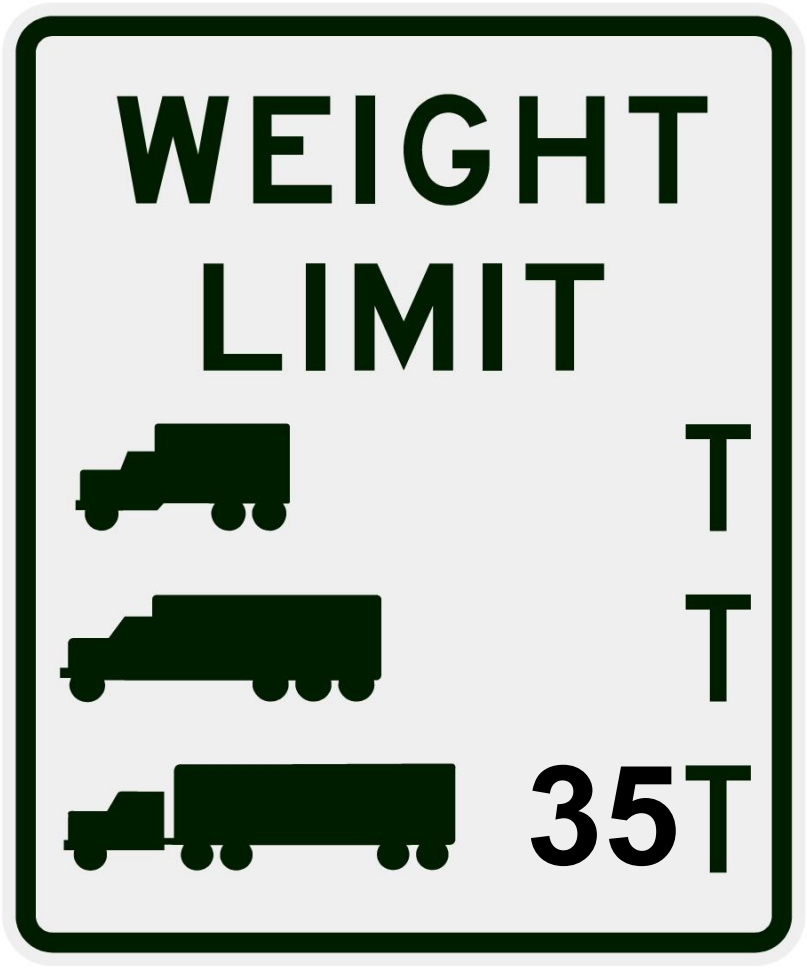
Bridge Posting Information

41 - Structure Open/Posted/Closed: P - Posted for load (may include other restrictions such a temporary bridges which are load posted)

70 - Bridge Posting: 3 - 10.0 - 19.9 % below

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	30		
Code 9 (31 Tons)	31		
Code 5 (40 Tons)	35	35	35

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

Asset #M0611(Routine, Underwater type 2)
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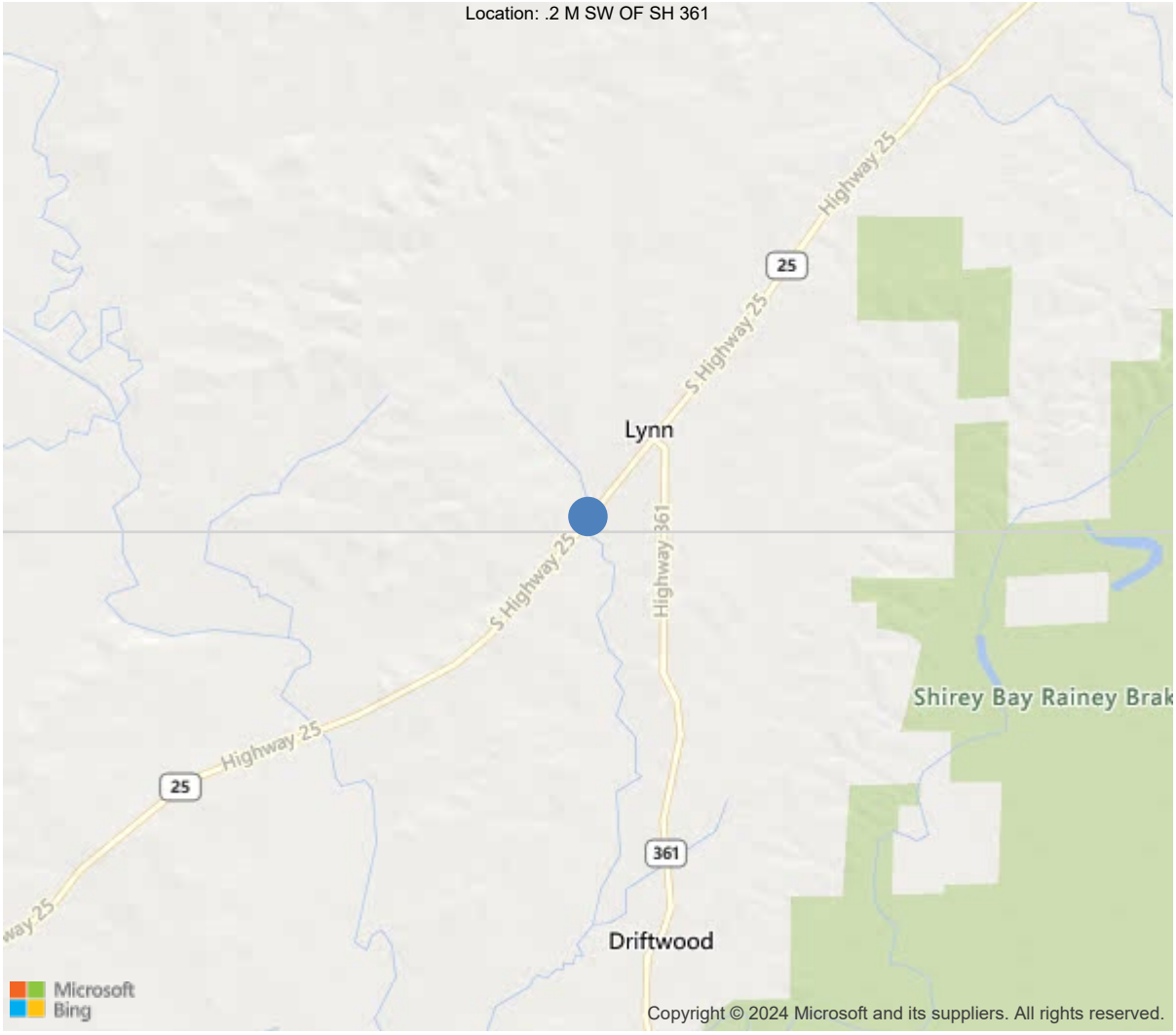
Team Lead: Richard Jones **Inspection Date:** 09/20/2023



36.00109, -91.25844

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0611
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	75 - Lawrence County
(4) Place Code	42260
(6) Features Intersected	MORGAN CREEK
(7) Facility Carried	SH 25-06- LM 10.50
(9) Location	.2 M SW OF SH 361
(11) Mile Point	10.5 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000025060
(16) Latitude	36.00109
(17) Longitude	-91.25844
(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	1
(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	1949
(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	1500
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	0 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	60 ft
(49) Structure Length	62 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	20 ft
(52) Deck Width Out to Out	22.7 ft
(32) Approach Roadway Width (W/Shoulders)	22 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	20 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 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 exis
(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 structu
(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	6
(60) Substructure	4
(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	36
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	21
(70) Bridge Posting	3 - 10.0 - 19.9 % below
(41) Structure Open/Posted/Closed	P - Posted for load (may inclu
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(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 t
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	87 ft
(94) Bridge Improvement Cost	$ 0
(95) Roadway Improvement Cost	$ 156
(96) Total Project Cost	$ 371
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	1250
(115) Year of Future ADT	2028

INSPECTIONS *

(90) Inspection Date			09/20/2023
(91) Frequency			12
(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.

58 - Deck (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)
Wearing surface was milled and replaced under job 100974 in 2022.
Overhangs have cracks with efflorescence. Soffit has a few transverse cracks with efflorescence.

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59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)
Steel girders have areas of surface rust. Girders have some flaking rust and section loss near stiffeners and field splices.

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60 - Substructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)
Bent 1 cap is decayed and hollow on Lt and Rt ends.
Cap is hollow under girder 1. Girder 1 spacer plate is crushing into top of cap.
Bent 1 cap is spliced between girders 2 and 3. Cap is undermined at center line, but has rip rap placed along front of abutment.
Bent 1 cap is decayed and hollow for 6’ on Rt end. Cap is hollow under girders 3 and 4. Girders 3 and 4 spacer plates are crushing into top of cap.
Bent 1 pile 2 has 2” of outside decay and checking. (Bad portion of pile noted in previous inspections is not visible. Embankments covered in rip rap in 2012 to repair erosion.)
Bent 1 pile 3 is decayed and partially hollow. Bad portion of pile noted in previous inspections is not visible.

Bent 2 cap has 4’ on Lt end that is decayed and partially hollow. This area is not under any girders.
Bent 2 pile 1 was spliced in the past.
Bent 2 pile 2 was spliced in the past.
Bent 2 piles 2 and 3 sub cap is decayed and partially hollow.
Sub cap over pile 3 is rotated in place under girder 3.
Bent 2 pile 3 has outside decay, split and is out of plumb.
Bent 2 pile 4 was spliced in the past.
Bent 2 backwall was repaired by District bridge crew in 2021.
Rip rap was placed along front of abutments in 2021.

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61 - Channel/Channel Protection (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)
Dense vegetation and trees growing along channel banks.

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	1302	1030	0	270	2
1080	Delamination/Spall/Patched Area	SF	4	0	0	2	2
1090	Exposed Rebar	SF	6	0	0	6	0
1120	Efflorescence/Rust Staining	SF	262	0	0	262	0
510	Wearing Surfaces	SF	1240	1240	0	0	0
(12) Wearing surface was milled and replaced under job 100974 in 2022. Approach roadway at bent 2 end was dug out and back filled with rip rap and poured concrete in 2021. Approach roadway has some minor settlement. Overhangs and bottom of several concrete bridge rail posts have cracks with efflorescence. A few posts have spalls or concrete disintegration on bottom. Soffit has a few transverse cracks with efflorescence. (510-12) Wearing surface was milled and replaced under job 100974 in 2022. Approach roadway at bent 2 end was dug out and back filled with rip rap and poured concrete in 2021. Approach roadway has some minor settlement.							
107	Steel Open Girder/Beam	LF	240	0	225	15	0
1000	Corrosion	LF	240	0	225	15	0
515	Steel Protective Coating	SF	1968	0	1494	220	254
3440	Effectiveness (Steel Protective Coatings)	LF	1968	0	1494	220	254
(107) Steel girders have areas of surface rust. Girders have some flaking rust near stiffeners and field splices. Girder 4 splice 1 interior splice plates, bolts, and nuts have flaking rust with section loss. Several nuts have moderate to advanced section loss. Girder 4 has areas of initial to measurable section loss along top and bottom of web near 1/4 point and mid span.							
215	Reinforced Concrete Abutment	LF	65	65	0	0	0
(215) Bent 2 backwall was repaired by District bridge crew in 2021. Rip rap was placed along front of abutments in 2021.							
216	Timber Abutment	LF	43	0	43	0	0
1150	Check/Shake	LF	43	0	43	0	0
(216) Timber backwalls are mostly covered with rip rap.							
228	Timber Pile	EA	16	0	13	3	0
1140	Decay/Section Loss	EA	3	0	0	3	0
1150	Check/Shake	EA	13	0	13	0	0
(228) Bent 1 pile 2 has 2" of outside decay and checking. (Bad portion of pile noted in previous inspections is not visible. Embankments covered in rip rap in 2012 to repair erosion.) Bent 1 pile 3 is decayed and partially hollow. Bad portion of pile noted in previous inspections is not visible. Bent 2 pile 1 was spliced in the past. Bent 2 pile 2 was spliced in the past. Bent 2 piles 2 and 3 sub cap is decayed and partially hollow. Bent 2 pile 3 has outside decay, split and is out of plumb. Bent 2 pile 4 was spliced in the past.							

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
235	Timber Pier Cap	LF	85	0	43	16	26
1140	Decay/Section Loss	LF	42	0	0	16	26
1150	Check/Shake	LF	43	0	43	0	0
(235) Bent 1 cap is decayed and hollow on Lt and Rt ends. Cap is hollow under girder 1. Girder 1 spacer plate is crushing into top of cap. Bent 1 cap is spliced between girders 2 and 3. Cap is undermined at center line, but has rip rap placed along front of abutment. Bent 1 cap is decayed and hollow for 6' on Rt end. Cap is hollow under girders 3 and 4. Girders 3 and 4 spacer plates are crushing into top of cap. Bent 2 cap has 4' on Lt end that is decayed and partially hollow. This area is not under any girders. Sub cap over pile 3 is rotated in place under girder 3.							
330	Metal Bridge Railing	LF	124	0	124	0	0
1000	Corrosion	LF	124	0	124	0	0
515	Steel Protective Coating	SF	397	102	0	295	0
3440	Effectiveness (Steel Protective Coatings)	LF	295	0	0	295	0
(330) Bridge rails have minor surface rust. Overhangs and bottom of several concrete bridge rail posts have cracks with efflorescence. A few posts have spalls or concrete disintegration on bottom.							

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

side

roadway

Load posting at beginning

Load posting at end

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Wearing surface

soffit

2022 aerial

Bent 1 cap between girders 2 & 3

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

09/21/2023

Bent 2 cap between girders 2 & 3

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Maintenance Needs

Date Reported: 10/03/2018

Priority:	A - Safety deficiency; requires prompt action	**Status:**	Assigned
Type of Work:	Substructure Repair	**Component:**	Substructure

Deficiency Description

Bent 1 cap is decayed and hollow on Lt and Rt ends.
Cap is hollow under girder 1. Girder 1 spacer plate is crushing into top of cap.
Bent 1 cap is spliced between girders 2 and 3. Cap is undermined at center line, but has rip rap placed along front of abutment.
Bent 1 cap is decayed and hollow for 6’ on Rt end. Cap is hollow under girders 3 and 4. Girders 3 and 4 spacer plates are crushing into top of cap.

Remarks

to District Bridge Crew for repair when other priorities allow. KAW 10/25/18
10/24/2019 - Bridge crew still busy with other repairs KAW
Dist Br Crew working on other priority repairs. KAW 10-16-2020

2023 - Bent 1 Lt

2023 - Bent 1 under girder 3

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

2023 - Bent 1 cap under girder 4

B1 left 2022

B1 right under girder 3 2022

B1 right under g4 2022

Left end bent 1 cap 2020

Bent 1 Girder 4

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Bent 1 cap under girder 1

Bent 1 RIGHT END 2019

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Maintenance Needs

Date Reported: 01/10/2012

Priority: C - Important
Status: Monitor
Type of Work: Piling Repair/Replace
Component: Substructure

Deficiency Description

Bent 1 pile 2 has 2” of outside decay and checking.
Bent 1 pile 3 is decayed and partially hollow.

Remarks

Majority of pile is not exposed due to rip rap placement along front of abutments.

01/01/2020

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Maintenance Needs

Date Reported: 01/10/2012

Priority: D- Routine

Status: Monitor

Type of Work: Repair (General)

Component: Substructure

Deficiency Description

Bent 2 cap has 4' on Lt end that is decayed and partially hollow. This area is not under any girders.
Bent 2 piles 2 and 3 sub cap is decayed and partially hollow.
Sub cap over pile 3 is rotated in place under girder 3.
Bent 2 pile 3 has outside decay, split and is out of plumb.

Remarks

Bent 2 pile 3 sub cap

Bent 2 pile 3 sub cap

Bent 2 pile 2 sub cap

2012 - Bent 2

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Maintenance Needs

Date Reported: 01/10/2012

Priority: D- Routine

Status: Monitor

Type of Work: Repair (General)

Component: Deck

Deficiency Description

Overhangs and bottom of several concrete bridge rail posts have cracks with efflorescence. A few posts have spalls or concrete disintegration on bottom.

Remarks

overhangs

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

Maintenance Needs

Date Reported: 01/15/2014

Priority: D- Routine

Status: Monitor

Type of Work: Repair (General)

Component: Superstructure

Deficiency Description

Steel girders have areas of surface rust. Girders have some flaking rust near stiffeners and field splices.
Girder 4 splice 1 interior splice plates, bolts, and nuts have flaking rust with section loss. Several nuts have moderate to advanced section loss.
Girder 4 has areas of initial to measurable section loss along top and bottom of web near 1/4 point and mid span

Remarks

Girder 4 at splice 1

Girder 4 at splice 1

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	Yes
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

A-56 - Joint Cleaning/Flushing Needed

A-57 - Girder End and Bearing Painting Needed

A-58 - Cap Cleaning/Flushing Needed

A-59 - Joint Repair Needed

A-60 - Full Girder Painting Needed (Yes)

A-61 - Polymer Overlay Advised

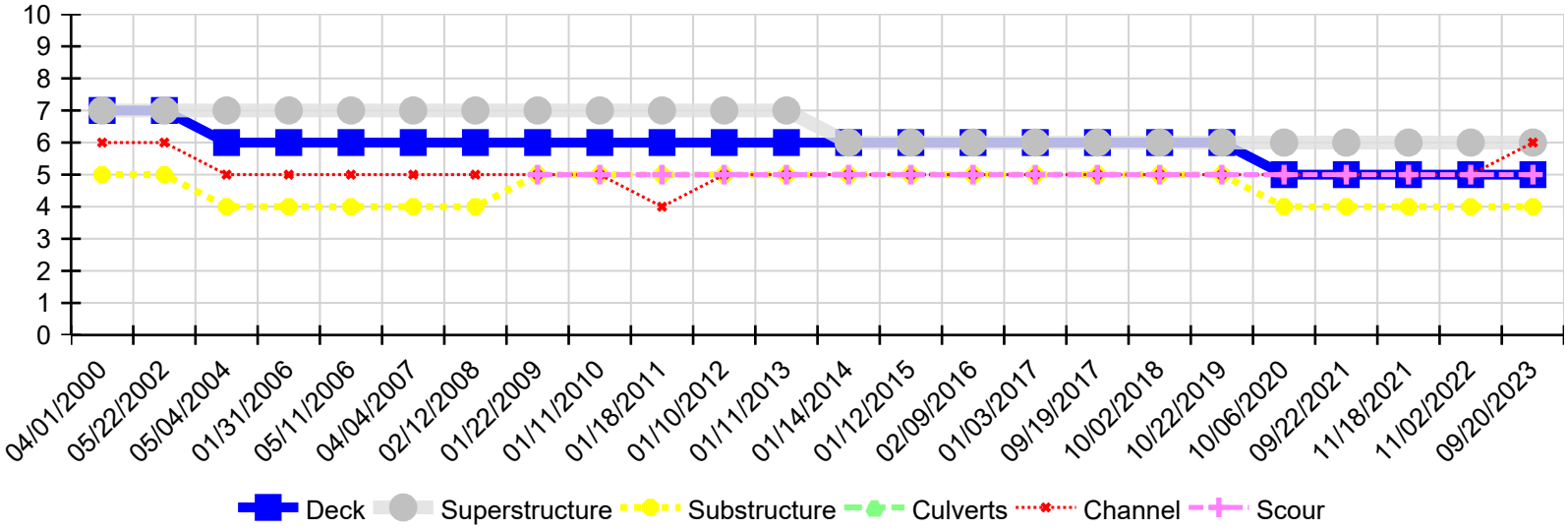
A-62 - Hydro and LMC Advised

A-63 - Missing/Incorrect Log Mile Signage

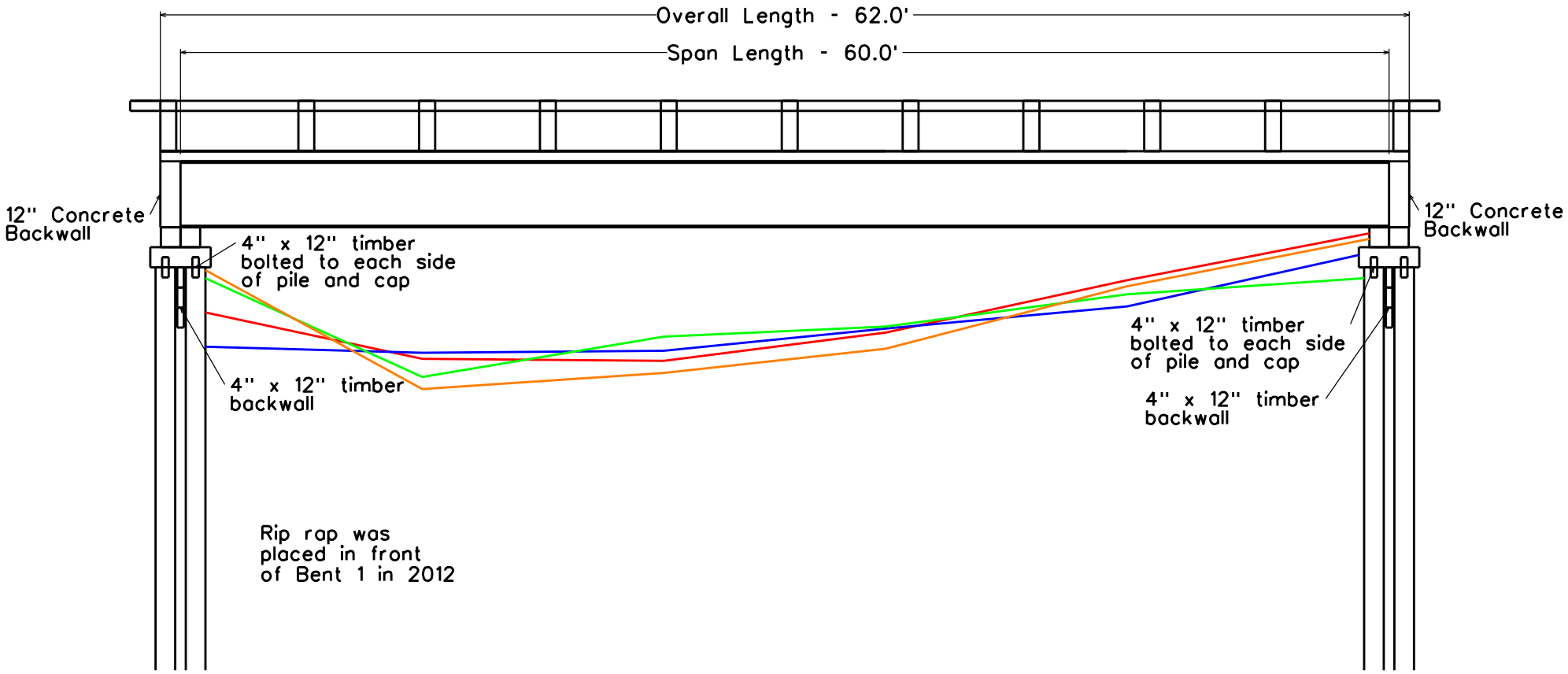
A-64 - Vegetation Removal Requested

Asset #M0611(Routine, Underwater type 2)
SH 25-06- LM 10.50 over MORGAN CREEK
Location: .2 M SW OF SH 361
Team Lead: Richard Jones **Inspection Date:** 09/20/2023

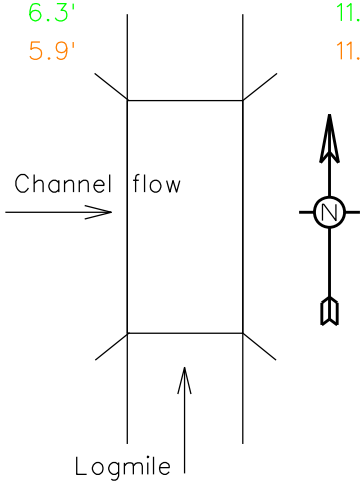
Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
09/20/2023	5	6	4	N	6	5
11/02/2022	5	6	4	N	5	5
11/18/2021	5	6	4	N	5	5
09/22/2021	5	6	4	N	5	5
10/06/2020	5	6	4	N	5	5
10/22/2019	6	6	5	N	5	5
10/02/2018	6	6	5	N	5	5
09/19/2017	6	6	5	N	5	5
01/03/2017	6	6	5	N	5	5
02/09/2016	6	6	5	N	5	5
01/12/2015	6	6	5	N	5	5
01/14/2014	6	6	5	N	5	5
01/11/2013	6	7	5	N	5	5
01/10/2012	6	7	5	N	5	5
01/18/2011	6	7	5	N	4	5
01/11/2010	6	7	5	N	5	5
01/22/2009	6	7	5	N	5	5
02/12/2008	6	7	4	N	5	N
04/04/2007	6	7	4	N	5	N
05/11/2006	6	7	4	N	5	N
01/31/2006	6	7	4	N	5	N
05/04/2004	6	7	4	N	5	N
05/22/2002	7	7	5	N	6	N
04/01/2000	7	7	5	N	6	N



Bent 1	+13'	+25'	+36'	+48'	Bent 2
8.0'	10.3'	10.4'	9.0'	6.4'	3.7'
9.7'	10.0'	9.9'	8.8'	7.7'	4.6'
6.3'	11.2'	9.2'	8.7'	7.1'	6.3'
5.9'	11.8'	11.0'	9.8'	6.7'	4.4'



Channel profiled from top of deck on Rt side (down stream side)
Red Line and Readings taken on 8-28-1990
Blue Line and Readings taken on 5-11-2006
Green Line and Readings taken on 10-2-2018
Orange Line and Readings taken on 9-20-2023

*Not to Scale

Bridge No. M0611	Dist. 10	Co. Lawrence - 38
Logmile 10.50	Rt. 00025	Sect/Zone - 06
Date Drawn 10/2/18	Insp. / Assist. RRJ / BDS	