



Latitude:34.59886, Longitude:-90.75443

Route:242 Section:01 Log:9.3

Arnold Road ID:54x242x1xA, Arnold Log mile:9.301

District 01, 107 - Phillips 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

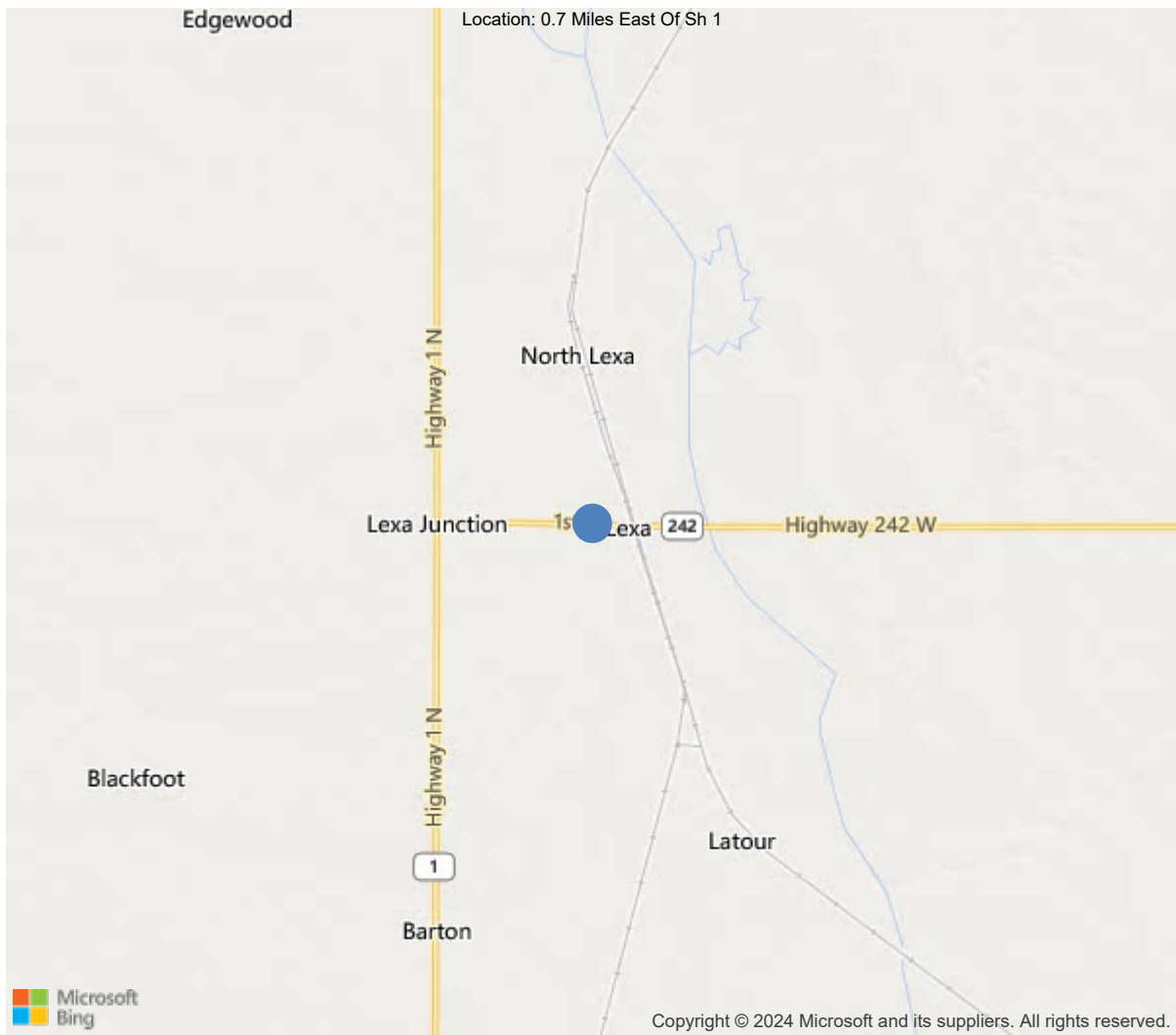
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	30		
Code 9 (31 Tons)	35		
Code 5 (40 Tons)	42		

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





34.59886, -90.75443



**Asset #M2516**(Routine, Underwater type 2)

**Sh-242/Sec-1/L9.30 over Creek**

**Location: 0.7 Miles East Of Sh 1**

**Team Lead: Myron Futrell, Inspection Date: 11/29/2022**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M2516
(5) Inventory Route	1
(2) Highway Agency District	01 - District 01
(3) County Code	107 - Phillips County
(4) Place Code	39670
(6) Features Intersected	Creek
(7) Facility Carried	Sh-242/Sec-1/L9.30
(9) Location	0.7 Miles East Of Sh 1
(11) Mile Point	9.3 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.598862
(17) Longitude	-90.754433
(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	1
(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	1959
(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	2019
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	31 ft
(50) Curb or Sidewalk Width	
Left	0.9 ft
Right	0.9 ft
(51) Bridge Roadway Width Curb to Curb	24.2 ft
(52) Deck Width Out to Out	27.6 ft
(32) Approach Roadway Width (W/Shoulders)	21 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	24.2 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	7 - Rural Major Collector
(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	8
(59) Superstructure	7
(60) Substructure	6
(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	46
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	28
(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	4
(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 to
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	1452
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	11/29/2022		
(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		
* 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.			





Asset #M2516(Routine, Underwater type 2)

District: 01, County: 107 - Phillips County

Team Lead: Myron Futrell, Inspection Date: 11/29/2022

### General Observation

Abutment #1 left concrete wing has scaling with efflorescence first one foot.  
Log mile signs should be 9.30.

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#### 58 - Deck (8 - VERY GOOD CONDITION - no problems noted.)

Deck has three inches of achm overlay except in gutters. No problems are visible in the deck, achm has a few cracks.

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#### 59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

Superstructure has a few pieces of rebar exposed in channel beam stems due to poor concrete coverage. Stems have a few small shallow spalls with no exposed rebar. Connection bolts are corroded with section loss. Overall condition of superstructure is good with no major problems visible. Several bridge rail posts have collision damage and are not connected to bridge rail, bridge rail left side at abutment #1 has approximately four feet missing both rails have areas of damage.

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#### 60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Substructure is in fair condition, four of five abutment #1 piles have been spliced and encased in concrete, no data available on concrete encasement, Abutment #1 timber backwall has several areas with decay. Abutment #2 cap, right end, back face has one foot of minor scaling and has minor undermining that has been sandbagged.

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#### 61 - Channel/Channel Protection (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

11/29/2022-Lowered channel and channel protection from 8 to 7 due to minor erosion at abutment #2 requiring sand bags. Channel has fairly steep slopes that are well vegetated. Channel right side of bridge has recently been cleared of brush, left side has small trees and vegetation growing.

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

Deck has small amount of dirt and debris in gutters.

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#### A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (6 - Widespread minor or isolated moderate scour.)

Rated a 6 due to minor erosion at abutment #2 and unknown pile depth.

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Asset #M2516(Routine, Underwater type 2)

Sh-242/Sec-1/L9.30 over Creek

Location: 0.7 Miles East Of Sh 1

Team Lead: Myron Futrell, Inspection Date: 11/29/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	744	744	0	0	0
510	Wearing Surfaces	SF	620	558	62	0	0
3220	Crack (Wearing Surface)	SF	62	0	62	0	0
(510-16) Wearing surface has a few longitudinal cracks.							
110	Reinforced Concrete Open Girder/Beam	LF	217	205	12	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	10	0	10	0	0
(110) Several units have pop outs with exposed rebar. Connection bolts are corroded with laminations no section loss. Unit #1 left leg center span has a one foot spall with no exposed rebar. Unit #1 left leg three quarter span has a six inch spall with no rebar exposed. Second transverse bolt between girders #2 and 3 has nut rusted off. Unit #6 at first transverse bolt has small spall and delamination.							
215	Reinforced Concrete Abutment	LF	20	19	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(215) Abutment #1 left wing has one foot of scaling with light efflorescence.							
216	Timber Abutment	LF	35	21	14	0	0
1140	Decay/Section Loss	LF	14	0	14	0	0
(216) Abutment #1 timber abutment is decayed behind piles #3,5 for eight feet in length.							
228	Timber Pile	EA	5	1	0	4	0
1140	Decay/Section Loss	EA	4	0	0	4	0
(228) Bent # 1 piles 1,2,3&4 have been spliced and encased in concrete. Piles have minor weathering and shallow splits.							
234	Reinforced Concrete Pier Cap	LF	52	48	4	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1120	Efflorescence/Rust Staining	LF	3	0	3	0	0
(234) Several small areas of steel exposed on faces of cap where snap ties were broken off. Abutment #1 cap has a few cracks with light efflorescence. Abutment #2 cap back face right side has six inch shallow spall with no exposed rebar.							
330	Metal Bridge Railing	LF	62	14	37	5	6
1000	Corrosion	LF	31	0	31	0	0
1020	Connection	LF	5	0	0	5	0
7000	Damage	LF	12	0	6	0	6
515	Steel Protective Coating	SF	186	70	111	0	5

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
3440	Effectiveness (Steel Protective Coatings)	LF	116	0	111	0	5
(330) 6" SPALL WITH EXPOSED REBAR ON RAIL POST RIGHT SIDE NEAR ABUTMENT #2. Right rail has some spots of rust. Second rail post on left side broken with exposed rebar. Fifth rail post on right side broken with exposed rebar. Abutment #1 and 2 left side first and last posts have been repaired, forms left in place. Left side first, third, forth, sixth and seventh rail posts not connected. Left rail, abutment #1 has several feet missing and four feet of minor damage mid span. Abutment #1 right rail first post broken, second post cracked and spalled with no exposed rebar, fifth post broken with exposed rebar sixth post has minor spall at top with no exposed rebar, last post not connected. Right rail has collision damage both ends.							





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Location: 0.7 Miles East Of Sh 1

Team Lead: Myron Futrell, Inspection Date: 11/29/2022

## Deck

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3220	Crack (Wearing Surface)	SF	62	0	62	0	0
(510-16) Wearing surface has a few longitudinal cracks.							

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Comment: Deck has three inches of achm overlay except in gutters. No problems are visible in the deck, achm has a few cracks.



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Sh-242/Sec-1/L9.30 over Creek

Location: 0.7 Miles East Of Sh 1

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## Superstructure

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1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	10	0	10	0	0
(110) Several units have pop outs with exposed rebar. Connection bolts are corroded with laminations no section loss. Unit #1 left leg center span has a one foot spall with no exposed rebar. Unit #1 left leg three quarter span has a six inch spall with no rebar exposed. Second transverse bolt between girders #2 and 3 has nut rusted off. Unit #6 at first transverse bolt has small spall and delamination.							

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Comment: Superstructure has a few pieces of rebar exposed in channel beam stems due to poor concrete coverage. Stems have a few small shallow spalls with no exposed rebar. Connection bolts are corroded with section loss. Overall condition of superstructure is good with no major problems visible. Several bridge rail posts have collision damage and are not connected to bridge rail, bridge rail left side at abutment #1 has approximately four feet missing both rails have areas of damage.



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Team Lead: Myron Futrell, Inspection Date: 11/29/2022

## Substructure

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215	Reinforced Concrete Abutment	LF	20	19	1	0	0
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216	Timber Abutment	LF	35	21	14	0	0
1140	Decay/Section Loss	LF	14	0	14	0	0
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(228) Bent # 1 piles 1,2,3&4 have been spliced and encased in concrete. Piles have minor weathering and shallow splits.							
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1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
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Comment: Substructure is in fair condition, four of five abutment #1 piles have been spliced and encased in concrete, no data available on concrete encasement, Abutment #1 timber backwall has several areas with decay. Abutment #2 cap, right end, back face has one foot of minor scaling and has minor undermining that has been sandbagged.

### 61 - Channel/Channel Protection (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

Comment: 11/29/2022-Lowered channel and channel protection from 8 to 7 due to minor erosion at abutment #2 requiring sand bags. Channel has fairly steep slopes that are well vegetated. Channel right side of bridge has recently been cleared of brush, left side has small trees and vegetation growing.





Abutment #2 log mile sign



Soffit / underside of deck



Soffit / underside of deck



Abutment #1





Abutment #1



Abutment #1



Abutment #2



Channel left side





Channel right side



Typical deck



Typical deck



Typical deck





Sixth rail post right side has small spall on top with no exposed rebar end of rail has minor collision damage



Fifth rail post right side broken, spalled with exposed rebar not connected to rail



Second rail post right side has small spall with no exposed on top



Abutment #1 first rail post right side





Bridge rail right side



Bridge rail left side



Left side rail posts #6 and 7 not connected, form left in place on rail post #7.



Left side, third and fourth rail posts not connected





Abutment #1 left rail post has been repaired with form left in place. Second rail post broken, spalled with exposed rebar, first four feet of rail missing.



Side view / elevation



Top view / inventory



Side view / elevation.





Abutment #1 left concrete wing has scaling with efflorescence first one foot.



Unit #1 left leg spalled at half and three quarter span with no exposed rebar.



Abutment #2 cap back face right side has six inch shallow spall with no exposed rebar.

**Maintenance Needs**

**Date Reported:** 12/01/2014

**Priority:** C - Important

**Type of Work:** (Inactive) (Inactive) 0 - N/A

**Status:** Monitor

**Component:**

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**Deficiency Description**

Abutment #1 timber abutment is decayed behind piles #3,5 for eight feet in length.

**Remarks**

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Abutment #2 back wall behind piles #4&5



Abutment #1 timber back wall behind pile #3



### Maintenance Needs

**Date Reported:** 12/02/2020

**Priority:** C - Important

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

**Status:** Forward State

**Component:** Element

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### Deficiency Description

Second rail post on left side broken with exposed rebar.

Fifth rail post on right side broken with exposed rebar.

Abutment #1 and 2 left side first and last posts have been repaired, forms left in place.

Left side first, third, forth, sixth and seventh rail posts not connected.

Left rail, abutment #1 has several feet missing and four-feet of minor damage mid-span.

Abutment #1 right rail first post broken, second post cracked and spalled with no exposed rebar, fifth post broken with exposed rebar sixth post has minor spall at top with no exposed rebar, last post not connected.

Right rail has collision damage both ends.

### Remarks

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Sixth rail post right side has small spall on top with no exposed rebar end of rail has minor collision damage



Fifth rail post right side broken, spalled with exposed rebar not connected to rail





Second rail post right side has small spall with no exposed on top



Abutment #1 first rail post right side



Bridge rail right side



Bridge rail left side



Left side rail posts #6 and 7 not connected, form left in place on rail post #7.



Left side, third and fourth rail posts not connected





Abutment #1 left rail post has been repaired with form left in place. Second rail post broken, spalled with exposed rebar, first four feet of rail missing.



Abutment #1 right side first rail post broken.



Second rail post on left side broken with exposed rebar.  
Fifth rail post on right side broken with exposed rebar.  
Abutment #1 and 2 left side first and last posts have been repaired, forms left in place.



**Maintenance Needs**

**Date Reported:** 12/02/2020

**Priority:** D- Routine

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

**Status:** Forward State

**Component:** Channel

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**Deficiency Description**

Small trees and vegetation growing beside and under bridge.

**Remarks**

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Trees and vegetation growing beside and under bridge



Small trees and vegetation growing beside bridge.



**Asset #M2516**(Routine, Underwater type 2)

**Sh-242/Sec-1/L9.30 over Creek**

**Location: 0.7 Miles East Of Sh 1**

**Team Lead:** Myron Futrell, **Inspection Date:** 11/29/2022

## **Routine Maintenance**

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	Yes
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	
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 (Yes)**

Deck has small amount of dirt and debris in gutters.

### **A-56 - Joint Cleaning/Flushing Needed**



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**A-57 - Beam End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

**A-59 - Joint Repair Needed**

**A-60 - Full Beam Painting Needed**

**A-61 - Polymer Overlay Advised**

**A-62 - Hydro and LMC Advised**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**



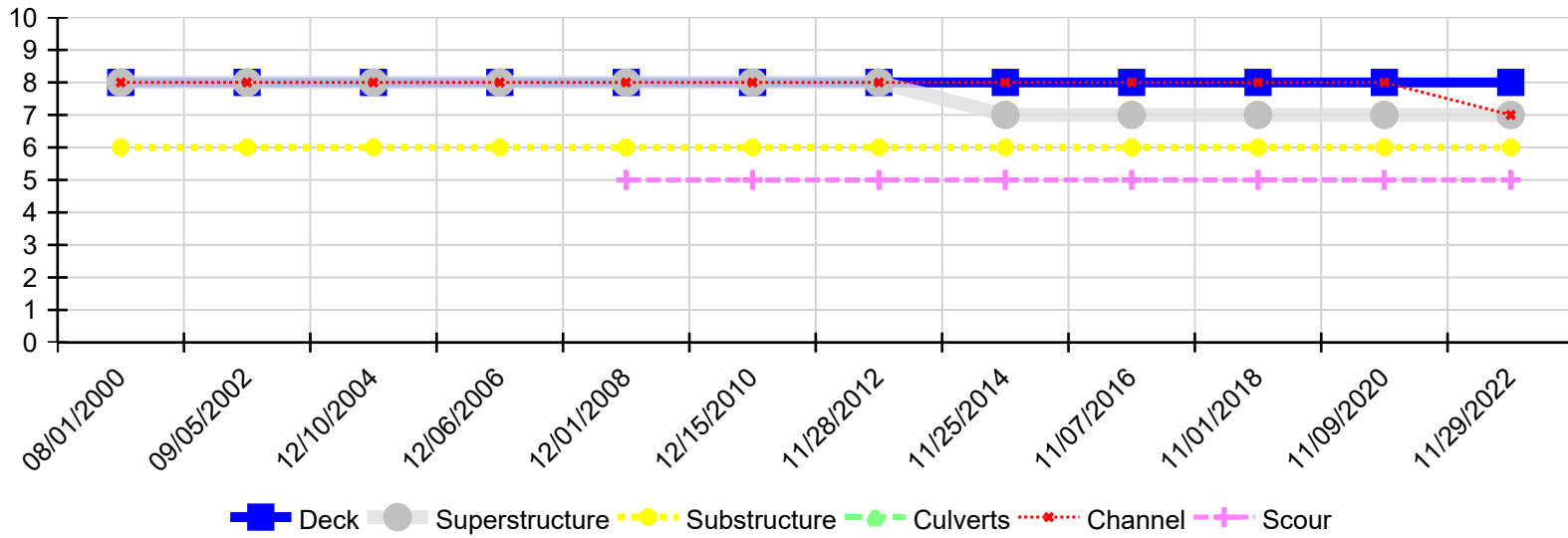
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Sh-242/Sec-1/L9.30 over Creek

Location: 0.7 Miles East Of Sh 1

Team Lead: Myron Futrell, Inspection Date: 11/29/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/29/2022	8	7	6	N	7	5
11/09/2020	8	7	6	N	8	5
11/01/2018	8	7	6	N	8	5
11/07/2016	8	7	6	N	8	5
11/25/2014	8	7	6	N	8	5
11/28/2012	8	8	6	N	8	5
12/15/2010	8	8	6	N	8	5
12/01/2008	8	8	6	N	8	5
12/06/2006	8	8	6	N	8	N
12/10/2004	8	8	6	N	8	N
09/05/2002	8	8	6	N	8	N
08/01/2000	8	8	6	N	8	N