



Latitude:35.08375, Longitude:-90.43898

Route:357 Section:01 Log:5.38

Arnold Road ID:68x357x1xA, Arnold Log mile:5.383

District 01, 123 - St. Francis County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

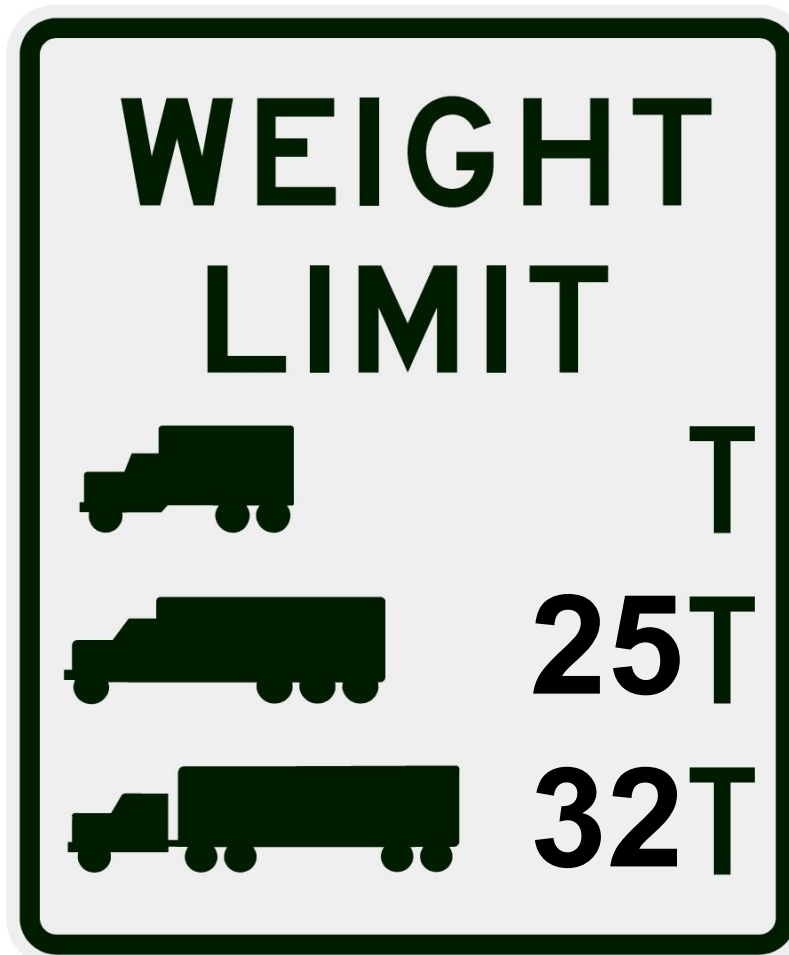
Bridge Posting Information

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

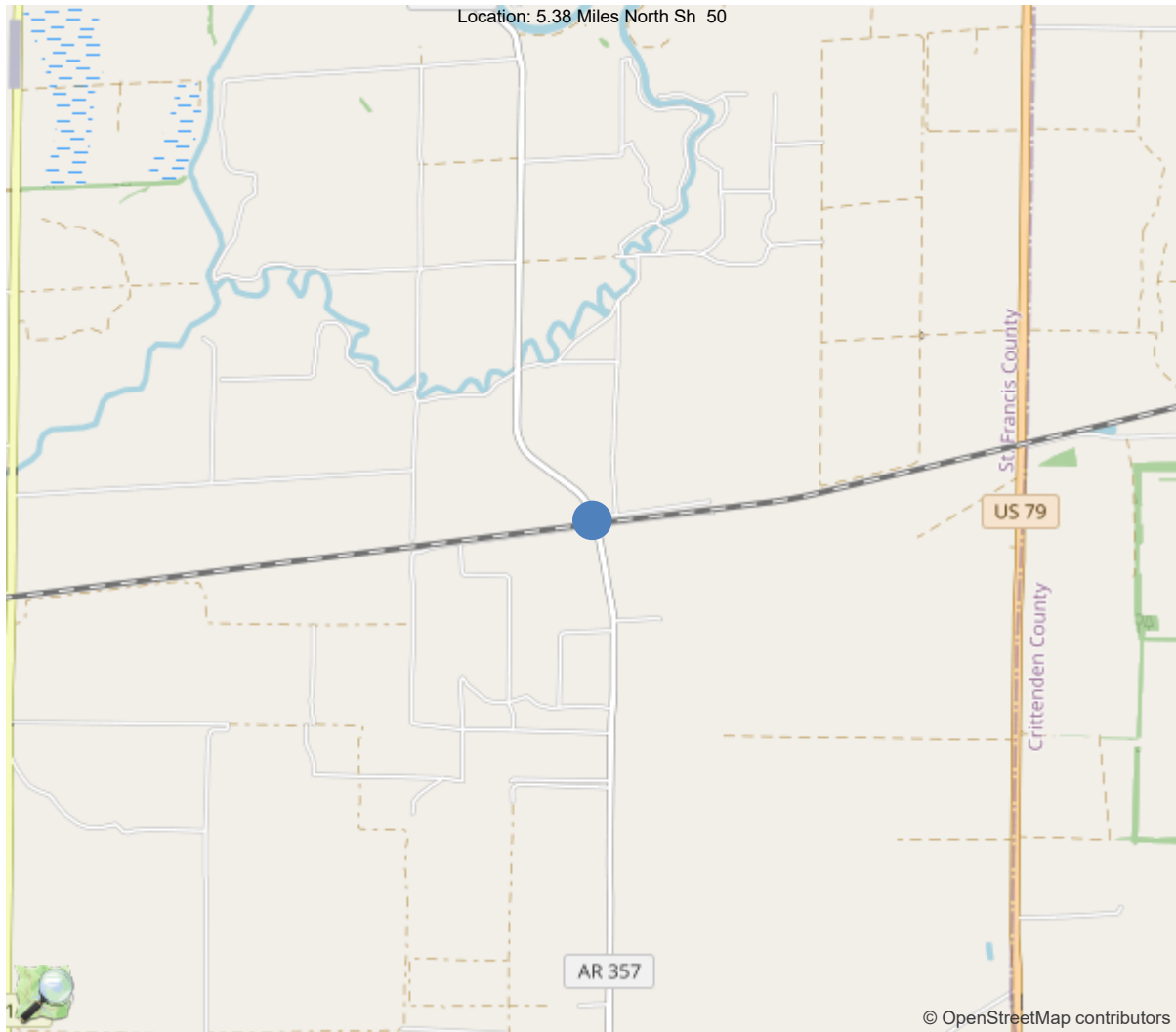
70 - Bridge Posting: 2 - 20.0 - 29.9 % below

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	22		
Code 9 (31 Tons)	25	25	25
Code 5 (40 Tons)	32	32	32

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



35.08375, -90.43898



Asset #03832(Routine)
Sh-357/Sec-1/L5.38 over Drainage Ditch #20

Location: 5.38 Miles North Sh 50

Team Lead: Myron Futrell Inspection Date: 01/11/2024

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03832
(5) Inventory Route	1
(2) Highway Agency District	01 - District 01
(3) County Code	123 - St. Francis County
(4) Place Code	0
(6) Features Intersected	Drainage Ditch #20
(7) Facility Carried	Sh-357/Sec-1/L5.38
(9) Location	5.38 Miles North Sh 50
(11) Mile Point	5.38 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.083752
(17) Longitude	-90.43898
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(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	1965
(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	90
(30) Year of ADT	2019
(109) Truck ADT	1 %
(19) Bypass, Detour Length	5 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	28 ft
(49) Structure Length	112 ft
(50) Curb or Sidewalk Width	
Left	0.9 ft
Right	0.9 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	26 ft
(32) Approach Roadway Width (W/Shoulders)	19 ft
(33) Bridge Median	0 - No median
(34) Skew	10 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	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	7
(59) Superstructure	7
(60) Substructure	6
(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	35
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	21
(70) Bridge Posting	2 - 20.0 - 29.9 % below
(41) Structure Open/Posted/Closed	P - Posted for load (may include
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	6
(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	121
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	01/11/2024		
(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.			



General Observation

Abutment 2 left wing has small spall with 2" exposed rebar.
Channel has erosion at abutment 1 slope.
Small drift at bent #3 right side.

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Deck is a voided slab with an ACHM overlay and is in overall good condition. Sides of slab have vertical hairline cracks spaced at roughly 8" to 12". Soffit / underside of slab has multiple CS2 longitudinal and transverse cracks each span, some with efflorescence and rust staining. ACHM overlay is cracked and spalled at joints.

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

Superstructure is a voided slab with an ACHM overlay and is in overall good condition. Sides of slab have vertical hairline cracks spaced at roughly 8" to 12". Soffit / underside of slab has multiple CS2 longitudinal and transverse cracks each span, some with efflorescence and rust staining.

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

Reinforced concrete substructure is in overall satisfactory condition. Concrete caps have several shallow spalls with exposed rebar. Bent #3 piles have light to moderate abrasion with no loose aggregate.

1/24/2022 lowered substructure from 7 to 6 due to cracks and spalls on caps.

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.) Channel is in overall satisfactory condition. Channel alignment is good, trees and brush restrict channel slightly. There is a moderate drift in channel at bent #3. Banks are slumping and not well vegetated.

A-55 - Deck Washing Needed (Y)

Gutters have dirt and vegetation growing in them.

A-64 - Vegetation Removal Requested (Y)

Trees and vegetation growing under and beside bridge.

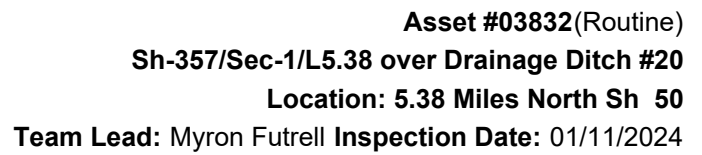


Asset #03832(Routine)
Sh-357/Sec-1/L5.38 over Drainage Ditch #20

Location: 5.38 Miles North Sh 50

Team Lead: Myron Futrell Inspection Date: 01/11/2024

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	2912	2790	7	115	0
1090	Exposed Rebar	SF	4	0	4	0	0
1120	Efflorescence/Rust Staining	SF	115	0	0	115	0
1130	Cracking (RC and Other)	SF	3	0	3	0	0
510	Wearing Surfaces	SF	2688	2640	0	48	0
3210	Delam/Spall/Patched Area/Pothole	SF	48	0	0	48	0
(38) 1/19/2021-deck has been pea sealed at time of inspection.							
Gutters have dirt and vegetation growing in them. Vertical hairline cracks on both sides of slab spaced 8" to 12" apart. Soffit-under surface has multiple cs1 and cs2 cracks all directions some with light rust stains. Span #4 soffit-under surface left side at drain has 3' of cracking. Span #4 soffit-under surface has cs2 crack center span with rust stains at abutment #2 for 8'. Span #4 soffit-under surface has five small pieces of exposed rebar due to poor concrete coverage.							
215	Reinforced Concrete Abutment	LF	68	66	1	1	0
1090	Exposed Rebar	LF	2	0	1	1	0
(215) Abutment #1 cap right side has 1' spall with exposed rebar with moderate section loss. Abutment #1 right wing has spall with one foot of exposed rebar.							
227	Reinforced Concrete Pile	EA	12	8	4	0	0
1190	Abrasion/Wear (PSC/RC)	EA	4	0	4	0	0
(227) Bent #3 piles have light scaling with no loose aggregate on bottom 3'.							
234	Reinforced Concrete Pier Cap	LF	84	67	0	17	0
1080	Delamination/Spall/Patched Area	LF	5	0	0	5	0
1090	Exposed Rebar	LF	8	0	0	8	0
1130	Cracking (RC and Other)	LF	4	0	0	4	0
(234) Bent #2 cap ahead face right side above pile #4 at top has a 1' delamination. Bent #2 cap bottom face has 1' of exposed rebar moderate section loss between piles #2,3 and by pile #4 due to poor concrete coverage each. Bent #3 cap back face has a 1' crack with delamination above pile #3 at top. Bent #3 cap ahead face has a 1' spall on left above pile #1 and 3' of cracks with delamination. Bent #3 cap both sides on bottom have several 1' spalls with rebar exposed moderate section loss. Bent #4 cap back face has a 1' spall with exposed rebar 1' from right side at top no section loss. Bent #4 cap bottom face has 1' spall with exposed rebar moderate section loss between piles #1,2 and four small delaminated areas above pile #2.							
301	Pourable Joint Seal	LF	144	22	0	122	0
2350	Debris Impaction	LF	122	0	0	122	0



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(301) Joints are overlaid with asphalt.							
330	Metal Bridge Railing	LF	224	218	0	6	0
7000	Damage	LF	6	0	0	6	0
515	Steel Protective Coating	SF	672	672	0	0	0
(330) Abutment #2 right end post has collision damage and is broken at base with exposed rebar with no section loss. Attached #2 left end post broken loose at bottom with exposed rebar. Span #4 left side 2nd post from bent #4 is broken at base.							



Side View / Elevation



Top view / inventory



Aerial View



Name plate



Left bridge rail



Right bridge rail



Abutment #1 left side first rail post has been replaced.



Attached #2 left end post broken loose at bottom with exposed



01/11/2024

Abutment #2 right end post broken at bottom with exposed rebar and curb spalled



01/11/2024

Last approach rail post misaligned and loose alignment abutment #1 right side



01/11/2024

Abutment #1 right approach rail



01/11/2024

Abutment #1 left approach rail



Abutment #2 left approach rail



Abutment #2 posting sign and log mile sign



Abutment #2 posting and log mile sign



Typical deck



Span #3 soffit / underside of deck



Span #4 soffit / underside of deck



Span #1 soffit / underside of deck



Span #2 soffit / underside of deck



Typical vertical crack in side of slab



Bent #2 ahead face



Bent #4 back face



Bent #3 ahead face



Abutment #2



Bent #4 ahead face



Typical exposed rebar on caps



Typical abrasion on bent #3 piles



Bent #3 back face



Bent #2 back face



Abutment #1



Abutment #1 right wing spalled with exposed rebar



Channel right side



Channel left side



Abutment #2 approach roadway settlement



Dirt and debris in gutters



Trees and vegetation growing beside and under bridge

Maintenance Needs

Date Reported: 01/11/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Channel

Deficiency Description

Slope at abutment #1 is eroding.

Remarks



Abutment #1 slope erosion

Maintenance Needs

Date Reported: 01/11/2016

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Abutment #2 right end posts have collision damage with exposed rebar with no section loss.
Span #4 left side 2nd post from bent #4 is broken at base.
Abutment #2 right end post is broken at bottom.

Remarks



01/17/2024

Abutment #2 right end post broken at bottom with exposed rebar and curb spalled



01/17/2024

Attached #2 left end post broken loose at bottom with exposed



01/11/2024

Span #4 left side 2nd post from bent #4 is broken at base.

Maintenance Needs

Date Reported: 01/05/2018

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Monitor

Component: Channel

Deficiency Description

Moderate drift at bent #3 right side.

Remarks



Moderate drift in channel bent #2 right side



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	Yes

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed (Yes)

Gutters have dirt and vegetation growing in them.



Dirt and debris in gutters

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

A-61 - Polymer Overlay Advised

A-62 - Hydro and LMC Advised

A-63 - Missing/Incorrect Log Mile Signage

A-64 - Vegetation Removal Requested (Yes)

Trees and vegetation growing under and beside bridge.



Trees and vegetation growing beside and under bridge

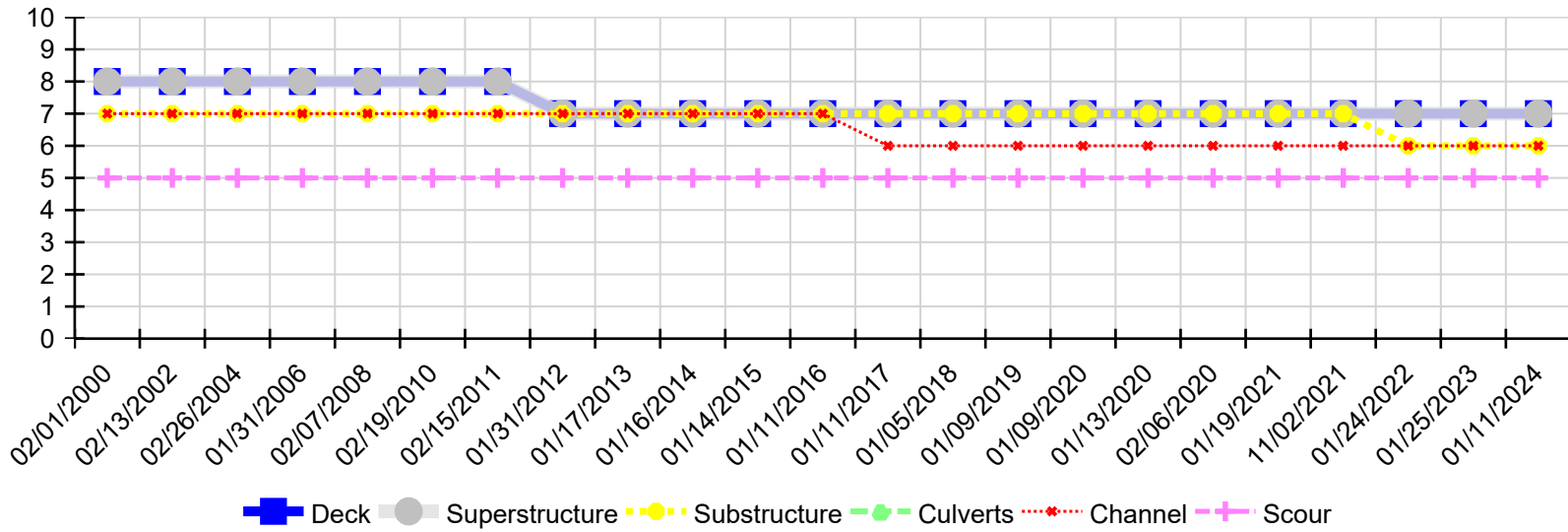


Asset #03832(Routine)
Sh-357/Sec-1/L5.38 over Drainage Ditch #20

Location: 5.38 Miles North Sh 50

Team Lead: Myron Futrell Inspection Date: 01/11/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
01/11/2024	7	7	6	N	6	5
01/25/2023	7	7	6	N	6	5
01/24/2022	7	7	6	N	6	5
11/02/2021	7	7	7	N	6	5
01/19/2021	7	7	7	N	6	5
02/06/2020	7	7	7	N	6	5
01/13/2020	7	7	7	N	6	5
01/09/2020	7	7	7	N	6	5
01/09/2019	7	7	7	N	6	5
01/05/2018	7	7	7	N	6	5
01/11/2017	7	7	7	N	6	5
01/11/2016	7	7	7	N	7	5
01/14/2015	7	7	7	N	7	5
01/16/2014	7	7	7	N	7	5
01/17/2013	7	7	7	N	7	5
01/31/2012	7	7	7	N	7	5
02/15/2011	8	8	7	N	7	5
02/19/2010	8	8	7	N	7	5
02/07/2008	8	8	7	N	7	5
01/31/2006	8	8	7	N	7	5
02/26/2004	8	8	7	N	7	5
02/13/2002	8	8	7	N	7	5
02/01/2000	8	8	7	N	7	5