

Bridge M2650 Inspection Report



Latitude:33.77480, Longitude:-92.39624

Route:274 Section:03 Log:20.485

Arnold Road ID:7x274x3xA, Arnold Log mile:20.487

District 07, 13 - Calhoun County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

Bridge Posting Information

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

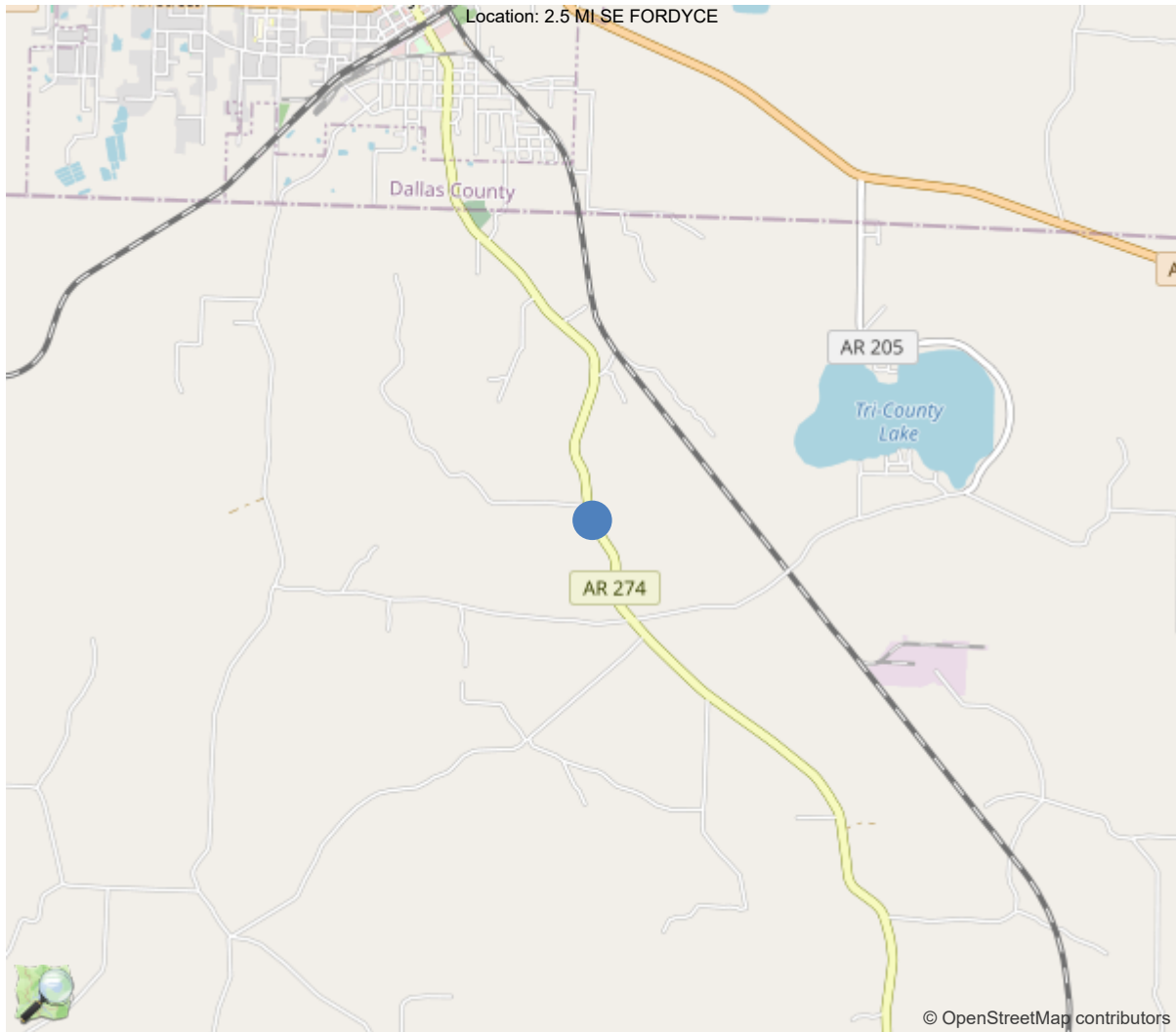
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	32		
Code 9 (31 Tons)	36		
Code 5 (40 Tons)	49		

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



33.77480, -92.39624

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M2650
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	13 - Calhoun County
(4) Place Code	0
(6) Features Intersected	CANEY CREEK
(7) Facility Carried	SH 274 S-3 LM20.49
(9) Location	2.5 MI SE FORDYCE
(11) Mile Point	20.485 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.7748
(17) Longitude	-92.39624
(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	2
(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 pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1966
(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	1258
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	32 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	38 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	25.2 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 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	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 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	6
(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	43
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	26
(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	6
(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 t
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	1313
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/16/2024
(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.			

Team Lead: Jermy Purifoy, Inspection Date: 07/16/2024

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	M2650
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	1966

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	13 - Calhoun County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	07 - District 07
B.L.05 Latitude	33.7748
B.L.06 Longitude	-92.39624
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	2.5 MI SE FORDYCE
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	S01 - State transportation departme
B.CL.02 Maint. Responsibility	S01 - State transportation departme
B.CL.03 Federal or Tribal Land Access	N - Not Applicable
B.CL.04 Historic Significance	N - Bridge is not eligible for the
B.CL.05 Toll	N - Bridge does not carry a toll ro
B.CL.06 Emergency Evacuation Designation	

ROADSIDE HARDWARE	
B.RH.01A Bridge Railing Type	
B.RH.01B Bridge Railing Year (YY)	
B.RH.01C Bridge Railing Test Level	
B.RH.02A Transition Type	
B.RH.02B Transition Year (YY)	
B.RH.02C Transition Test Level	

BRIDGE GEOMETRY	
B.G.01 NBIS Bridge Length	35
B.G.02 Total Bridge Length	38.1
B.G.03 Max Span Length	19
B.G.04 Min Span Length	19
B.G.05 Bridge Width Out-to-Out	25.3
B.G.06 Bridge Width Curb-to-Curb	24
B.G.07 Left Curb or Sidewalk Width	0
B.G.08 Right Curb or Sidewalk Width	0
B.G.09 Approach Roadway Width	27.9

B.G.10 Bridge Median	0 - No median
B.G.11 Skew	0
B.G.12 Curved Bridge	N - Not curved
B.G.13 Max Bridge Height	8
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	961.4

LOADS AND LOAD RATING	
B.LR.01 Design Load	H15 - H-15
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	LFR - Load Factor Rating
B.LR.05 Inventory Load Rating Factor	0.72
B.LR.06 Operating Load Rating Factor	1.19
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	N - NSTM inspection not required.
B.IR.02 Fatigue Details	N - No E/E' details
B.IR.03 UW Inspection Required	N - Underwater inspection not requi
B.IR.04 Complex Feature	N - Bridge does not have complex fe

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	7 - GOOD - Some minor defects.
B.C.02 Superstructure Condition	6 - SATISFACTORY - Widespread
B.C.03 Substructure Condition	6 - SATISFACTORY - Widespread
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	6 - SATISFACTORY - Widespread
B.C.06 Bridge Railing Transitions Condition	N - NOT APPLICABLE - Component
B.C.07 Bridge Bearings Cond.	N - NOT APPLICABLE - Component
B.C.08 Bridge Joints Condition	6 - SATISFACTORY - Widespread
B.C.09 Channel Condition Rating	6 - SATISFACTORY - Widespread
B.C.10 Channel Protection Condition	6 - SATISFACTORY - Widespread
B.C.11 Scour Condition Rating	7 - Some minor scour.
B.C.12 Bridge Condition Classification	F - Fair
B.C.13 Lowest Condition Rating	6 - SATISFACTORY - Widespread
B.C.14 NSTM Insp. Condition	N - NOT APPLICABLE - Component
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	2 - Very low - once every 51 to 99
B.AP.03 Scour Vulnerability	AB-T - TEMP - Stable for scour, pos
B.AP.04 Scour Plan of Action	0 - A scour POA is not required.
B.AP.05 Seismic Vulnerability	0 - Seismic evaluation not complete

SPAN SETS			
M1			
B.SP.02 # of Spans	2	B.SP.08 Deck Interaction	IM - Integral or monolithic
B.SP.03 # of Beam Lines	7	B.SP.09 Deck Material and Type	C02 - Reinforced concrete - pr
B.SP.04 Span Material	C02 - Reinforced concrete - pr	B.SP.10 Wearing Surface	B01 - Bituminous (asphalt)
B.SP.05 Span Continuity	1 - Simple or single span	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G07 - Girder/beam - channel ad	B.SP.12 Deck Reinforcing Protective System	0 - None
B.SP.07 Span Protective System	0 - None	B.SP.13 Deck Stay-In-Place Forms	0 - None

SUBSTRUCTURE SETS			
A1			
B.SB.02 No. of Substructure Units	2	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	P05 - Pile - timber
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	T01 - Treated - timber preserv
P1			
B.SB.02 No. of Substructure Units	1	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	P05 - Pile - timber
B.SB.04 Substructure Type	B03 - Bent - pile	B.SB.07 Foundation Protective System	T01 - Treated - timber preserv

HIGHWAY FEATURES			
H1			
B.F.02 Feature Location	C - Carried on bridge	B.H.09 Annual ADT	1258
B.F.03 Feature Name	SH 274 S-3 LM20.49	B.H.10 Annual ADTT	12
B.H.01 Functional Classification	5 - Major Collector	B.H.11 Year of Annual ADT	2018
B.H.02 Urban Code	99999	B.H.12 Highway Max Usable Vertical Clearance	99.9
B.H.03 NHS Designation	N - Non-NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	N - Not on the NHFN	B.H.14 Highway Min Horizontal Clearance, Left	
B.H.05 STRAHNET Designation	N - Not a STRAHNET route	B.H.15 Highway Min Horizontal Clearance, Right	
B.H.06 LRS Route ID		B.H.16 Highway Max Usable Surface Width	25.5
B.H.07 LRS Mile Point	20.485	B.H.17 Bypass Detour Length	32
B.H.08 Lanes On Highway	2	B.H.18 Crossing Bridge Number	

HIGHWAY ROUTES					
Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type
H1	1	274	2-T - TEMP - Two-way traffic - NS or EW	3 - State route	1 - Mainline



Team Lead: Jermy Purifoy, Inspection Date: 07/16/2024

WATERWAY FEATURES

W1			
B.F.02 Feature Location	B - Below bridge	B.N.03 Movable Bridge Max Navigation Vertical Clearance	
B.F.03 Feature Name	CANEY CREEK	B.N.04 Navigation Channel Width	
B.N.01 Navigable Waterway	N - Not navigable waters	B.N.05 Navigation Channel Min Horizontal Clearance	
B.N.02 Navigation Min Vertical Clearance		B.N.06 Substructure Navigation Protection	

POSTING STATUS DATA

B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date
PO - Permanent and Open	

LOAD EVALUATION AND POSTING

B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value
----------------------------------	----------------------------------	----------------------	-----------------------



Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy Inspection Date: 07/16/2024

Inspection Notes

General Observation

This bridge is Precast Channel Unit spans with stub abutments and pile bents. Waders are used for access to inspect the underside of all spans and pile bents. Inspection tools used are probing rods, tape measures, levels, and flashlights.

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

Deck is rated 7 due to some minor abrasion.

59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Superstructure is rated 6 due to some of the unit legs have minor spalls.

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

Substructure is rated 6 due some spalls on caps and some minor piling decay.

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 rated 6 due to banks slumping and debris in the stream.

B.C.05 Bridge Railing Condition Rating (6 - SATISFACTORY - Widespread minor or isolated moderate defects.)

Bridge railing is rated 6 due rusty and flaky paint.

B.C.08 Bridge Joints Condition Rating (6 - SATISFACTORY - Widespread minor or isolated moderate defects.)

Joints rated 6 due to no expansion material in the joint but no signs of expansion problems.

B.C.10 Channel Protection Condition Rating (6 - SATISFACTORY - Widespread minor or isolated moderate defects.)

Channel protection is rated 6 due to some erosion in the banks.

A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (7 - Some minor scour.)

Scour condition is rated 7 due to minimal scour at the piles. Stream bed is sandy silt material.



Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy Inspection Date: 07/16/2024

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	958	958	0	0	0
510	Wearing Surfaces	SF	912	684	228	0	0
3220	Crack (Wearing Surface)	SF	228	0	228	0	0
110	Reinforced Concrete Open Girder/Beam	LF	266	257	1	8	0
1080	Delamination/Spall/Patched Area	LF	6	0	0	6	0
1090	Exposed Rebar	LF	3	0	1	2	0
(110) Span 1 unit 5 left leg spall 8LF CS3 at bent 2. Span 2 unit 4 1' spall cs2							
228	Timber Pile	EA	13	12	1	0	0
1140	Decay/Section Loss	EA	1	0	1	0	0
(228) Bent 1: Pile 4 hollow CS2 Bent 2: No defects observed. Bent 3: No defects observed.							
234	Reinforced Concrete Pier Cap	LF	78	72	0	6	0
1080	Delamination/Spall/Patched Area	LF	6	0	0	6	0
(234) Bent 1: 2LF spall left end CS3 Bent 2: 2LF spall between piles 3 and 4 CS3 1LF spall over pile 4 CS3 1LF spall on right side CS3 Bent 3: No defects observed							
304	Open Expansion Joint	LF	25	25	0	0	0
330	Metal Bridge Railing	LF	76	76	0	0	0

Inspection Photos and Notes



Elevation



Deck overview



Under surface of top flange



Typical superstructure



Typical substructure



Channel left side upstream



Channel right side downstream



Approach



Span 2 unit 6 left leg spall 2LF CS3 at bent 3.



Span 1 unit 5 left leg spall 8LF CS3 at bent 2.

Maintenance Needs

Date Reported: 08/03/2016

Priority: D- Routine

Status: Monitor

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

Bent 1 Lt. side, end of cap is spalled.

Remarks



Bent 1 left side 2LF spall CS3





Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy **Inspection Date:** 07/16/2024

Maintenance Needs

Date Reported: 08/02/2018

Priority: D- Routine

Status: Assigned

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

Abutment 1 pile 4, hollow spots.

Remarks



Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy Inspection Date: 07/16/2024

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	No
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	No
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (No)



Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy **Inspection Date:** 07/16/2024

A-57 - Girder End and Bearing Painting Needed (No)

A-58 - Cap Cleaning/Flushing Needed (No)

A-59 - Joint Repair Needed (No)

A-60 - Full Girder Painting Needed (No)

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 (No)

A-65 - Clogged deck drains?



Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy **Inspection Date:** 07/16/2024

A-66 - Approach minor pothole/leveling needed



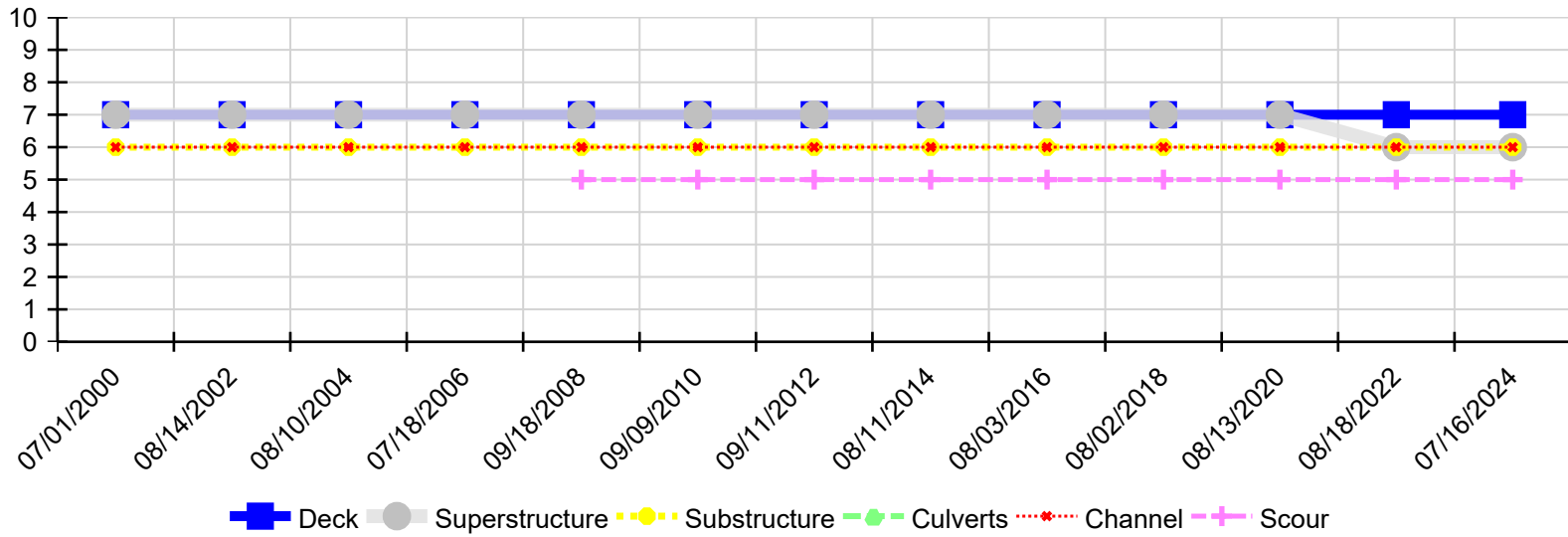
Asset #M2650(Routine, Underwater type 2)

SH 274 S-3 LM20.49 over CANEY CREEK

Location: 2.5 MI SE FORDYCE

Team Lead: Jermy Purifoy Inspection Date: 07/16/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/16/2024	7	6	6	N	6	5
08/18/2022	7	6	6	N	6	5
08/13/2020	7	7	6	N	6	5
08/02/2018	7	7	6	N	6	5
08/03/2016	7	7	6	N	6	5
08/11/2014	7	7	6	N	6	5
09/11/2012	7	7	6	N	6	5
09/09/2010	7	7	6	N	6	5
09/18/2008	7	7	6	N	6	5
07/18/2006	7	7	6	N	6	N
08/10/2004	7	7	6	N	6	N
08/14/2002	7	7	6	N	6	N
07/01/2000	7	7	6	N	6	N