

Bridge A3732 Inspection Report



Latitude:34.91600, Longitude:-91.16158

Route:40 Section:43 Log:217.76

Arnold Road ID:48x40x43xB, Arnold Log mile:66.74

District 01, 95 - Monroe County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

Bridge Posting Information

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

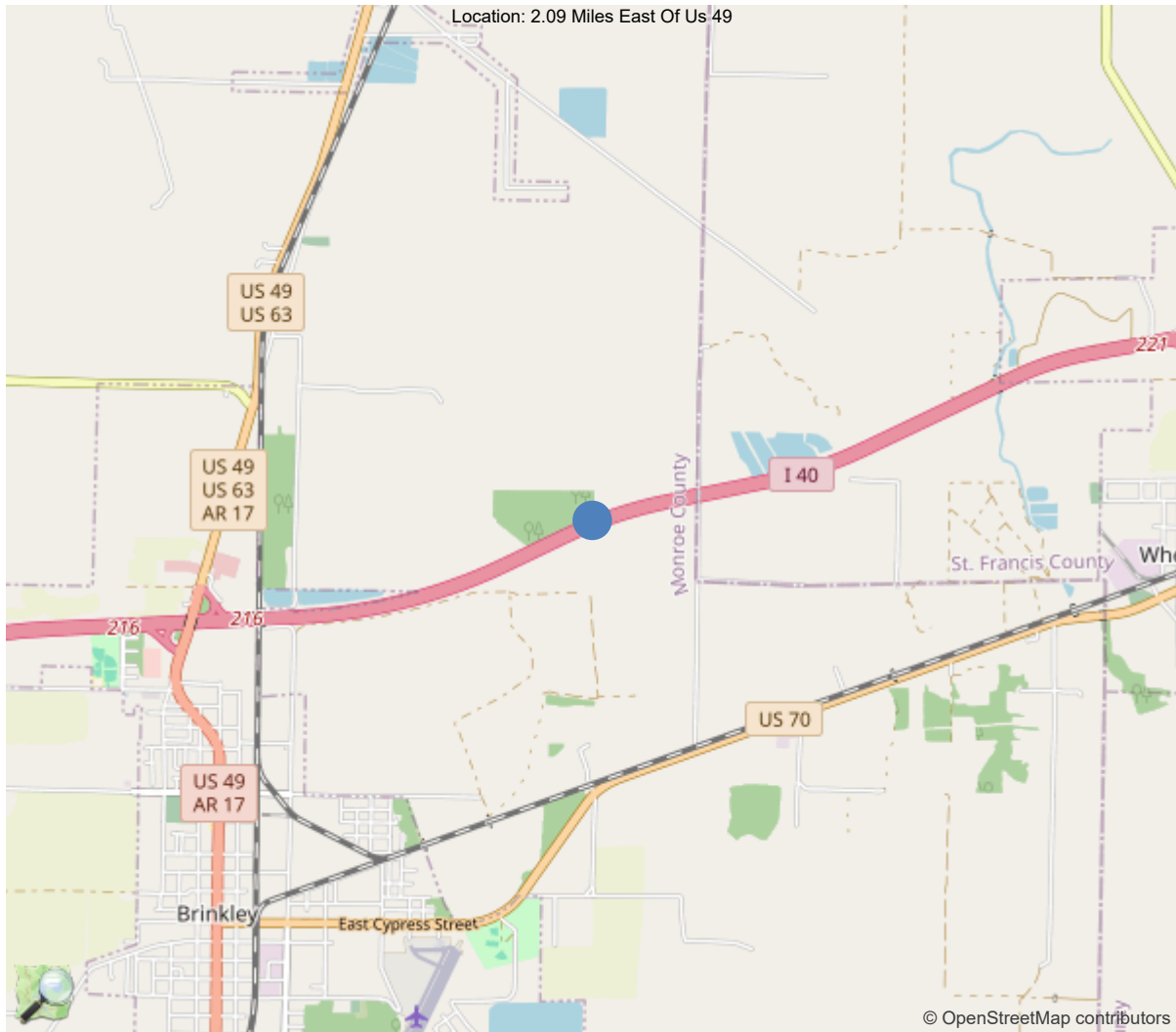
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	60		

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



34.91600, -91.16158

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A3732
(5) Inventory Route	1
(2) Highway Agency District	01 - District 01
(3) County Code	95 - Monroe County
(4) Place Code	0
(6) Features Intersected	Piney Ditch
(7) Facility Carried	I-40WB/Se43/217.76
(9) Location	2.09 Miles East Of Us 49
(11) Mile Point	217.76 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000040430
(16) Latitude	34.916
(17) Longitude	-91.16158
(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	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	0 - None (no additional concrete thickne
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	29000
(30) Year of ADT	2019
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	50 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	42.1 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0 - No median
(34) Skew	20 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 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	1
(26) Functional Class	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	L - The left structure of para
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(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	5
(60) Substructure	5
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6 - MS 18+Mod / HS 20+Mod
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(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	6
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(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	17098
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			12/19/2024
(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: Myron Futrell, Inspection Date: 12/19/2024

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	A3732
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	95 - Monroe County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	01 - District 01
B.L.05 Latitude	34.916
B.L.06 Longitude	-91.16158
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	2.09 Miles East Of Us 49
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	45.4
B.G.02 Total Bridge Length	49.9
B.G.03 Max Span Length	24.9
B.G.04 Min Span Length	21.5
B.G.05 Bridge Width Out-to-Out	42
B.G.06 Bridge Width Curb-to-Curb	40
B.G.07 Left Curb or Sidewalk Width	0
B.G.08 Right Curb or Sidewalk Width	0
B.G.09 Approach Roadway Width	40

B.G.10 Bridge Median	0 - No median
B.G.11 Skew	20
B.G.12 Curved Bridge	N - Not curved
B.G.13 Max Bridge Height	5
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	2094.2

LOADS AND LOAD RATING	
B.LR.01 Design Load	HS20M - HS-20 and Military
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	1
B.LR.06 Operating Load Rating Factor	1.67
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	
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	5 - FAIR - Some moderate defec
B.C.02 Superstructure Condition	5 - FAIR - Some moderate defec
B.C.03 Substructure Condition	5 - FAIR - Some moderate defec
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	7 - GOOD - Some minor defects.
B.C.06 Bridge Railing Transitions Condition	7 - GOOD - Some minor defects.
B.C.07 Bridge Bearings Cond.	N - NOT APPLICABLE - Component
B.C.08 Bridge Joints Condition	5 - FAIR - Some moderate defec
B.C.09 Channel Condition Rating	5 - FAIR - Moderate defects; b
B.C.10 Channel Protection Condition	N - NOT APPLICABLE - Bridge do
B.C.11 Scour Condition Rating	6 - Widespread minor or isolat
B.C.12 Bridge Condition Classification	F - Fair
B.C.13 Lowest Condition Rating	5 - FAIR - Some moderate defec
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	1 - Remote - once every 100 years o
B.AP.03 Scour Vulnerability	0 - Scour appraisal has not been co
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	1	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	C01 - Reinforced concrete - ca	B.SP.10 Wearing Surface	0 - None
B.SP.05 Span Continuity	1 - Simple or single span	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	S02 - Slab - voided	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	PX - Pile - other
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
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	PX - Pile - other
B.SB.04 Substructure Type	B03 - Bent - pile	B.SB.07 Foundation Protective System	0 - None

HIGHWAY FEATURES			
H1			
B.F.02 Feature Location	C - Carried on bridge	B.H.09 Annual ADT	29000
B.F.03 Feature Name	I-40WB/Se43/217.76	B.H.10 Annual ADTT	290
B.H.01 Functional Classification	1 - Interstate	B.H.11 Year of Annual ADT	2019
B.H.02 Urban Code	99999	B.H.12 Highway Max Usable Vertical Clearance	99.9
B.H.03 NHS Designation	Y - NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	1-T - TEMP - NHFN - 1 or 2 or	B.H.14 Highway Min Horizontal Clearance, Left	
B.H.05 STRAHNET Designation	1 - STRAHNET route	B.H.15 Highway Min Horizontal Clearance, Right	
B.H.06 LRS Route ID	40430	B.H.16 Highway Max Usable Surface Width	39.6
B.H.07 LRS Mile Point	217.76	B.H.17 Bypass Detour Length	3
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	R01	40W	1-T - TEMP - One-way traffic - NB or EB or SB or WB	1 - Interstate route	1 - Mainline



Team Lead: Myron Futrell, Inspection Date: 12/19/2024

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	Piney Ditch	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 - 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
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Asset #A3732(Routine, Underwater type 2)

I-40WB/Se43/217.76 over Piney Ditch

Location: 2.09 Miles East Of Us 49

Team Lead: Myron Futrell Inspection Date: 12/19/2024

Inspection Notes

General Observation

Team Lead-Myron Futrell
Bridge Inspector-Charley Smith
Boat used for access.
No lane closure required for inspection.

Drawing numbers: 12424,12425b.

58 - Deck (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Reinforced concrete voided slab deck is in overall fair condition. Top of deck has unsealed longitudinal cracking, and abrasion full length. Undersurface of deck has a large, delaminated area span 1 with cracking, some having rust staining or efflorescence each span.

59 - Superstructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Reinforced concrete voided slab superstructure is in overall fair condition. Top of deck has unsealed longitudinal cracking, and abrasion full length. Undersurface of deck has a large, delaminated area span in span 1 with cracking, some having rust staining or efflorescence, both spans.

60 - Substructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Reinforced concrete substructure is in overall fair condition. Abutment 1 cap has minor erosion. Bent 2 cap has a moderate spall with no exposed reinforcing steel and bent 2 piles have minor abrasion.

10/24/2018 lowered substructure from 7 to 6 due to scour around abutment 1.

10/27/2020-Lowered substructure from 6 to 5 due to erosion at abutments.

61 - Channel/Channel Protection (5 - Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.)

Channel banks are vegetated with minor slumping channel has large amounts of debris restrictions. Slopes have moderate erosion at abutments exposing several piles.

10-20-2022 lowered channel from 6 to 5 due to debris restrictions.

A-54 - Sealable Deck Cracks (Y)

Deck has multiple sealable cracks.

A-55 - Deck Washing Needed (Y)

Dirt and debris in gutters.

A-59 - Joint Repair Needed (Y)

Joints have areas of missing or damaged material.



Asset #A3732(Routine, Underwater type 2)

I-40WB/Se43/217.76 over Piney Ditch

Location: 2.09 Miles East Of Us 49

Team Lead: Myron Futrell Inspection Date: 12/19/2024

A-62 - Hydro and LMC Advised (Y)

Deck has numerous longitudinal cracks, and areas of heavy scaling.

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

Moderate scour at abutment 1.

National Bridge Element Quantities and Notes

[illegible]

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Abutment 2, approach slab: 5 SF achm patches. Patches 5SF CS3							
331	Reinforced Concrete Bridge Railing	LF	100	99	1	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
(331) Span 2, bridge rail, at bent 2: 6" spall on outside at the cap. Spall 1LF CS2							

Inspection Photos and Notes



Side view / elevation



Top view / inventory



Bridge rail, right side



Bridge rail, left side



Abutment 2, approach rail, left side



Span 1, deck



Span 2, deck



Span 2, undersurface of deck, at right deck drain: spalled at right deck drain with exposed reinforcing steel with moderate section loss, 1' by 3'.



Span 2, undersurface of deck



Span 1, undersurface of deck



Abutment 2, by pile 3: large animal hole under cap exposing pile 3 up to 1'.



Abutment 2



Bent 2, pile 4, at top: two small pieces of exposed reinforcing steel due to poor concrete coverage.



Bent 2, pier cap, back, between piles 6 and 7, at top: spalled with no exposed reinforcing steel.



Bent 2, back



Abutment 1, right side: cap undermined 6' up to 2' deep exposing pile 6.



Abutment 1



Channel, right side



Channel, left side



Span 2, deck



Span 1, deck



Dirt and debris in gutters



Abutment 2, joint



Bent 2, joint



Span 2, deck



Span 1, deck



Bent 2, joint



Abutment 2, joint



Abutment 1, approach slab



Abutment 2, approach slab

Maintenance Needs

Date Reported: 10/30/2014

Priority: C - Important

Type of Work: Approach Leveling/Maintenance

Status: Monitor

Component: Approach

Deficiency Description

Approach slabs: moderate sized open cracks.

Remarks



Abutment 1, approach slab



Abutment 2, approach slab

Maintenance Needs

Date Reported: 10/30/2020

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Monitor

Component: Channel

Deficiency Description

Abutment 1, pier cap, right side: undermined 4' up to 1' deep exposing one pile.

Abutment 2, pier cap: large animal hole under cap exposing pile 3 up to 1'.

Remarks



01/07/2025

Abutment 2, by pile 3: large animal hole under cap exposing pile 3 up to 1'.



01/07/2025

Abutment 1, right side: cap undermined 6' up to 2' deep exposing pile 6.

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	Yes
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	Yes
A-60 - Full Beam Painting Needed	No
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	Yes
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 (Yes)

Deck has multiple sealable cracks.



Span 2, deck



Span 1, deck

A-55 - Deck Washing Needed (Yes)

Dirt and debris in gutters.



Dirt and debris in gutters

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

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

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

A-59 - Joint Repair Needed (Yes)

Joints have areas of missing or damaged material.



Abutment 2, joint



Bent 2, joint

A-60 - Full Girder Painting Needed (No)

A-61 - Polymer Overlay Advised (No)

A-62 - Hydro and LMC Advised (Yes)

Deck has numerous longitudinal cracks, and areas of heavy scaling.



Span 2, deck



Span 1, deck



Asset #A3732(Routine, Underwater type 2)

I-40WB/Se43/217.76 over Piney Ditch

Location: 2.09 Miles East Of Us 49

Team Lead: Myron Futrell Inspection Date: 12/19/2024

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



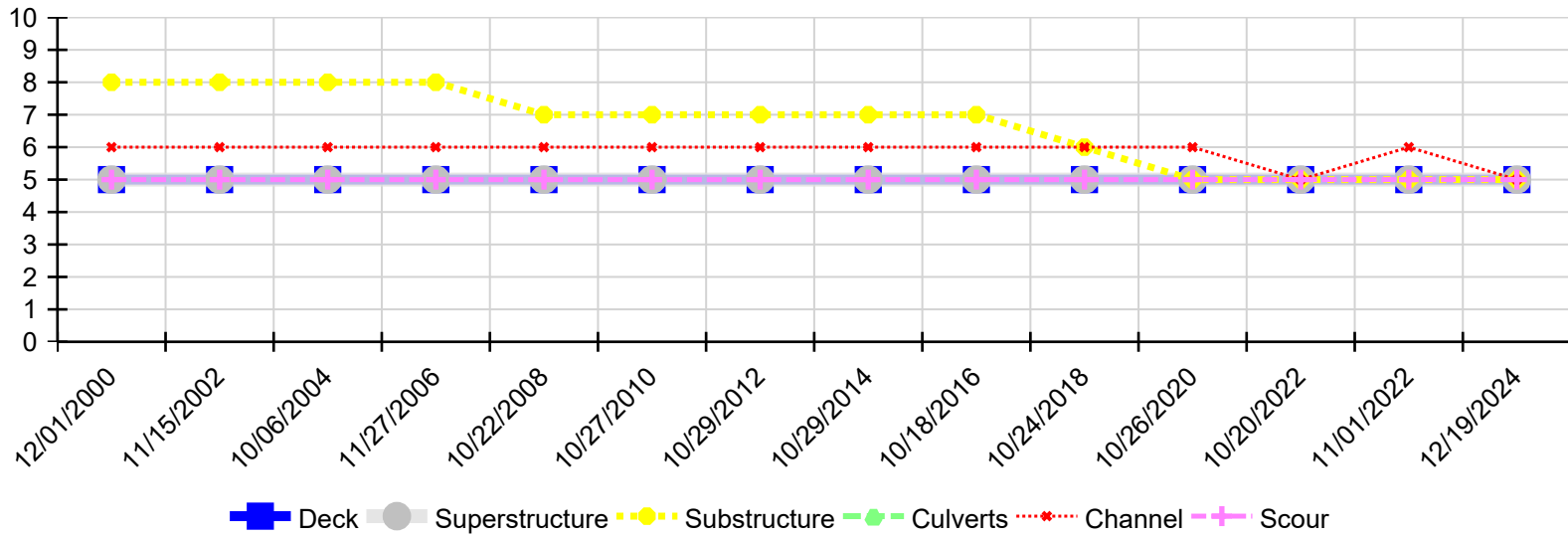
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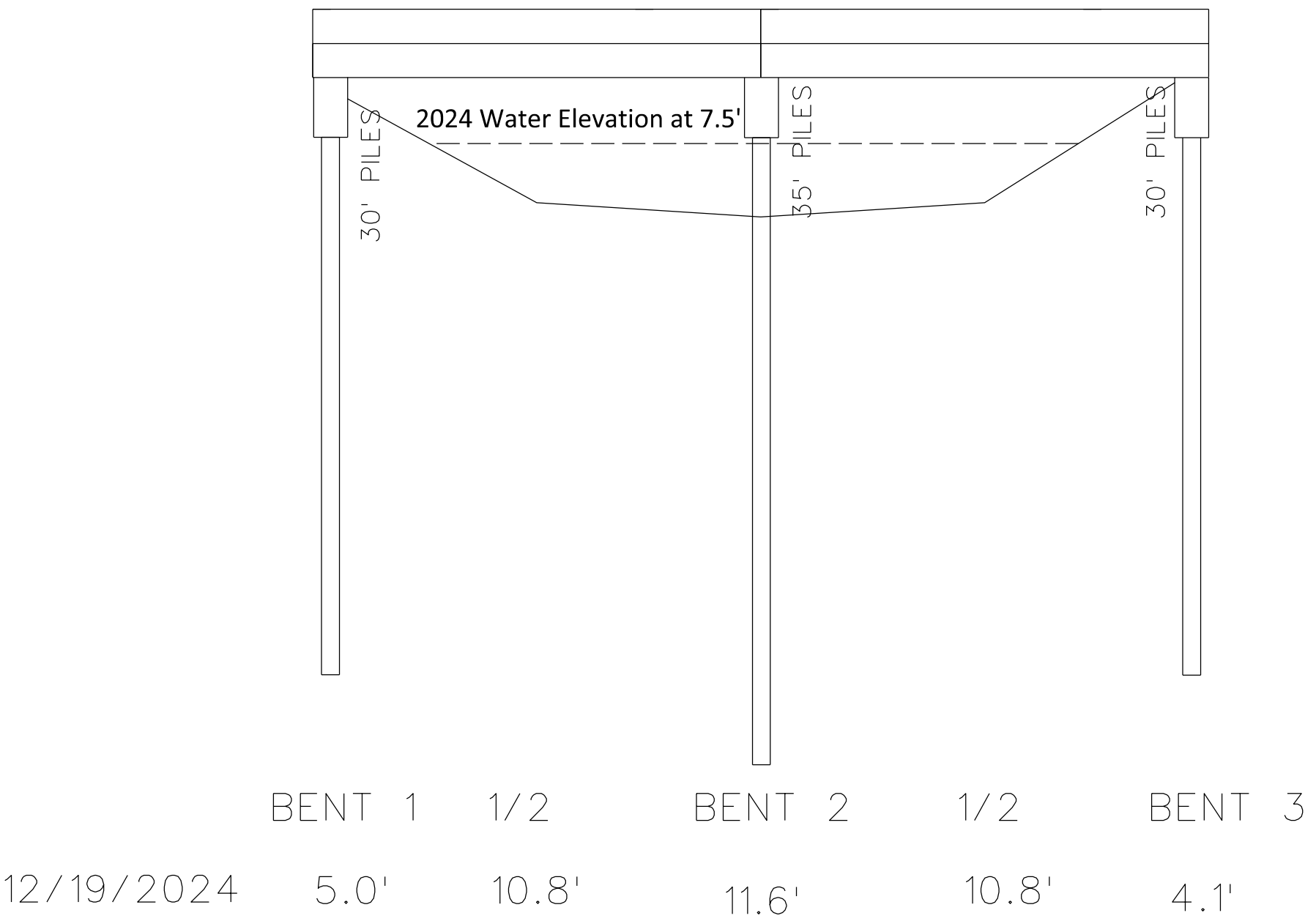
Team Lead: Myron Futrell Inspection Date: 12/19/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
12/19/2024	5	5	5	N	5	5
11/01/2022	5	5	5	N	6	5
10/20/2022	5	5	5	N	5	5
10/26/2020	5	5	5	N	6	5
10/24/2018	5	5	6	N	6	5
10/18/2016	5	5	7	N	6	5
10/29/2014	5	5	7	N	6	5
10/29/2012	5	5	7	N	6	5
10/27/2010	5	5	7	N	6	5
10/22/2008	5	5	7	N	6	5
11/27/2006	5	5	8	N	6	5
10/06/2004	5	5	8	N	6	5
11/15/2002	5	5	8	N	6	5
12/01/2000	5	5	8	N	6	5

READINGS TAKEN FROM TOP OF PARAPET WALL LEFT SIDE OF BRIDGE.



ARKANSAS STATE HIGHWAY COMMISSION Little Rock, ARK.			BRIDGE NO. A3732		 BRIDGE OPERATIONS
	Scale: 1"=8'		Drawn By: AMC	Project: Channel Profile	
	Inspection Dir: W to E	Channel Flow: Edit	Checked By: Edit	Date: 12/19/2024	