



Latitude:35.54738, Longitude:-90.59992

Route:14 Section:14 Log:8.72

Arnold Road ID:56x14x14xA, Arnold Log mile:8.73

District 10, 111 - Poinsett County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

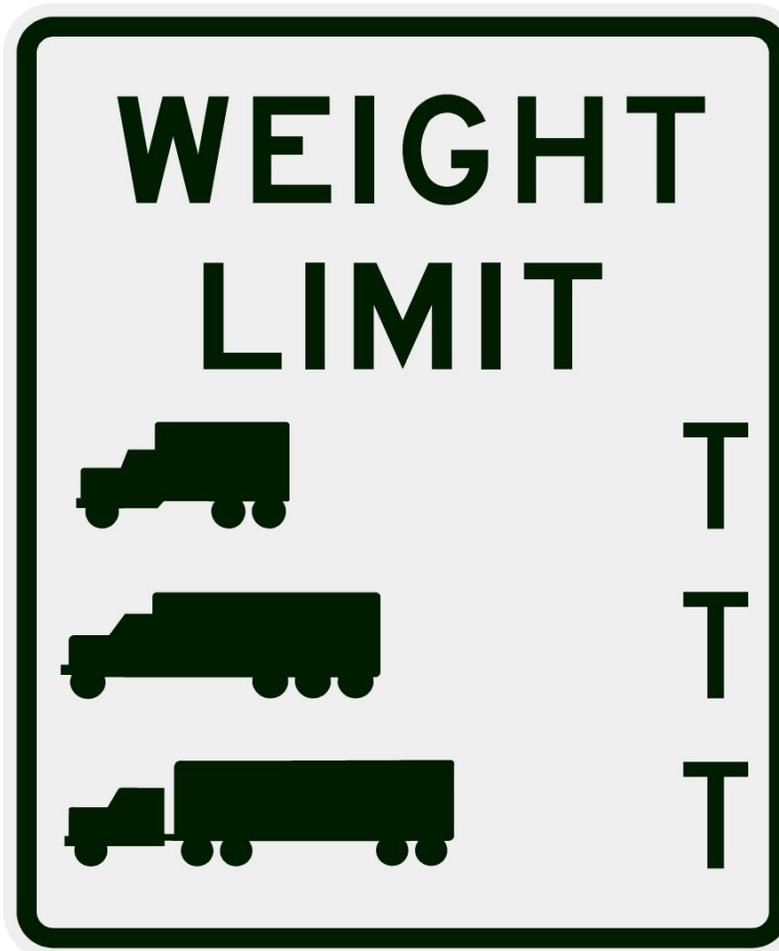
Bridge Posting Information

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

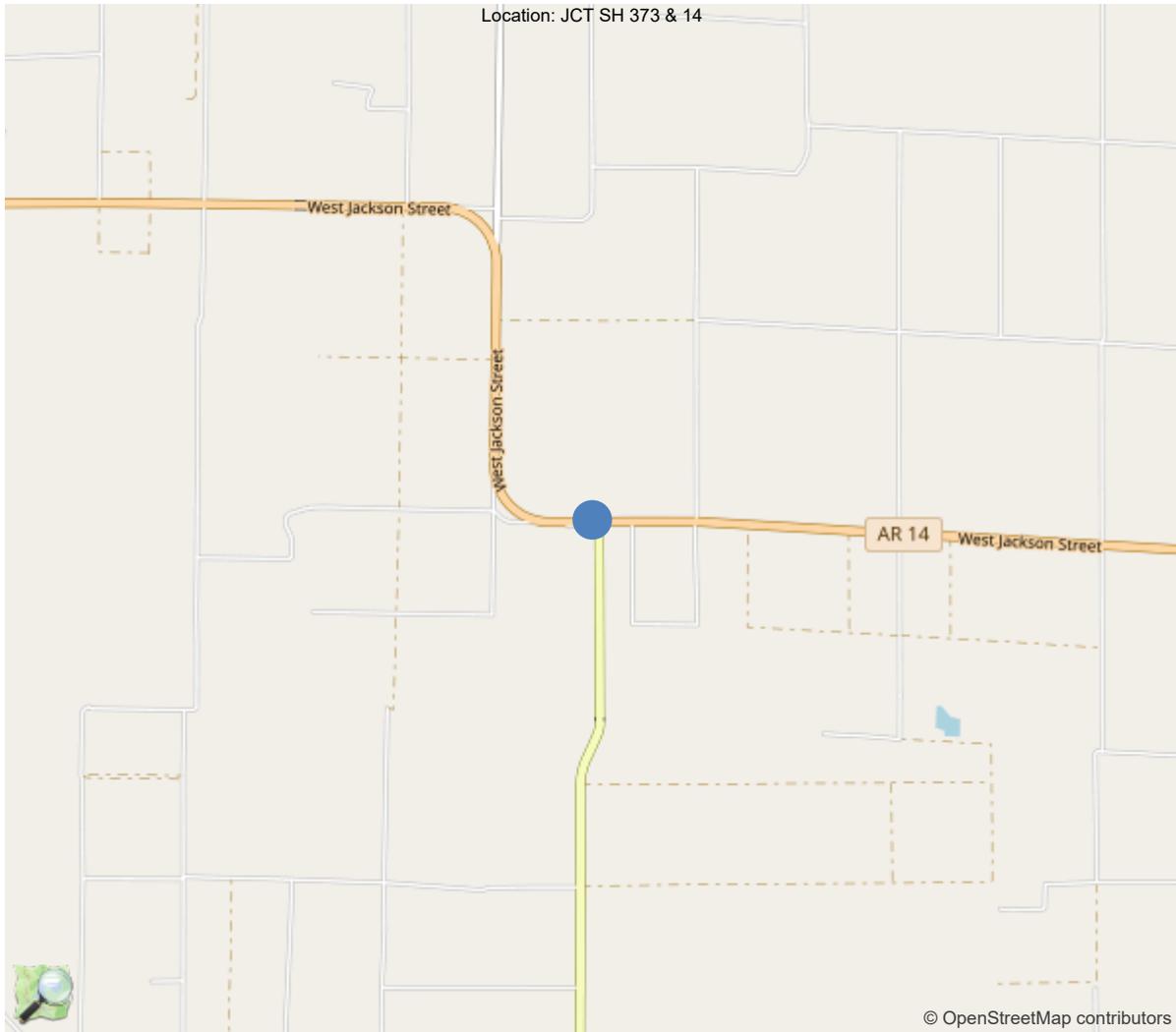
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	38		
Code 9 (31 Tons)	42		
Code 5 (40 Tons)	51		

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



35.54738, -90.59992



Asset #00579(Routine, Underwater type 2)

SH 14-14- LM 8.72 over DITCH 11

Location: JCT SH 373 & 14

Team Lead: Richard Jones Inspection Date: 05/20/2024

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	00579
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	111 - Poinsett County
(4) Place Code	0
(6) Features Intersected	DITCH 11
(7) Facility Carried	SH 14-14- LM 8.72
(9) Location	JCT SH 373 & 14
(11) Mile Point	8.72 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000014140
(16) Latitude	35.54738
(17) Longitude	-90.59992
(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	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	1951
(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	2600
(30) Year of ADT	2018
(109) Truck ADT	24 %
(19) Bypass, Detour Length	8 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	34 ft
(49) Structure Length	138.3 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	26.6 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	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	6 - Rural Minor Arterial
(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	6
(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	56
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	33
(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	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(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	167 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 156
(96) Total Project Cost	\$ 533
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	2608
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			05/20/2024
(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.			



General Observation

-

41 - Structure Open/Posted/Closed (A)

MN for new lowered posting has been closed with picture documentation of correct signs.

58 - Deck (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

mostly satisfactory condition. Undersurface has cracks with efflorescence.

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

Several girder ends were repaired in 2021.

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

Sub is mostly satisfactory condition, but has a few cracks and spalls.

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.)

Bent 1 tops of 3 piles are exposed. Embankment has minor erosion.

Bent 5 abutment has 3 battered piles exposed. Scour repair below abutment has deterioration & spalling on left end.



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	3446	3004	442	0	0
1120	Efflorescence/Rust Staining	SF	442	0	442	0	0
510	Wearing Surfaces	SF	3264	1413	161	1690	0
3210	Delam/Spall/Patched Area/Pothole	SF	219	0	161	58	0
3220	Crack (Wearing Surface)	SF	1632	0	0	1632	0
<p>(12) Undersurface has transverse cracks with efflorescence. Bays 1 and 4 have areas of map cracking with efflorescence. CS2</p> <p>(510-12) Approach roadways have settlement with areas of map cracking and a few potholes.</p> <p>Asphalt wearing surface has map cracking with some rutting in outside wheel path and gutters. CS3</p> <p>Span 4 Rt lane has a 4' x 10' asphalt patch. CS2</p> <p>Asphalt is cracked and raveling out over joints. CS3</p>							
107	Steel Open Girder/Beam	LF	680	673	5	2	0
1000	Corrosion	LF	7	0	5	2	0
515	Steel Protective Coating	SF	4750	3077	900	623	150
3440	Effectiveness (Steel Protective Coatings)	LF	1673	0	900	623	150
<p>(107) Span 1 bent 1 girders 1 - 5 were t spliced in 2021. Girder 1 has some flaking rust along bottom of web. Girders 3 and 4 have gaps at bearings and are moving under traffic.</p> <p>Span 1 bent 2 girder 1 was t spliced in 2021.</p> <p>Span 1 bent 2 girders 2 and 3 have welded plates at web below haunch.</p> <p>Span 1 bent 2 girder 5 was t spliced in 2021.</p> <p>Rockers were replaced with channels and round stock.</p> <p>Span 2 bent 2 girder 1 was t spliced in 2021.</p> <p>Span 2 bent 2 girders 3 and 4 have welded plates at web below haunch.</p> <p>Span 2 bent 2 girder 5 was t spliced in 2021.</p> <p>Span 2 bent 3 rockers were replaced.</p> <p>Span 2 bent 3 girders 1, 3, and 4 have full height welded web splices at end.</p> <p>Span 2 bent 3 girder 5 was t spliced in 2021.</p> <p>Span 3 bent 3 girder 1 was t spliced in 2021.</p> <p>Span 3 bent 3 girders 2 and 3 have bolted plates at web below haunch.</p> <p>Span 3 bent 4 girders 1, 2, 4, and 5 were t spliced in 2021. Girder 3 has a full height welded web splice.</p> <p>Rockers were replaced with channels and round stock.</p> <p>Span 4 bent 4 girders 1 and 5 were t spliced in 2021. Girders 2 and 4 have full height welded web splices. Girder 3 has a welded web splice and welded plates at haunch.</p> <p>Rockers were replaced with channels and round stock.</p> <p>Span 4 bent 5 girders 1 - 3 were t spliced in 2021. Girders 2 - 4 have bolted plates at haunch. Girder 5 has a t splice with bolted bottom flange plate.</p>							
215	Reinforced Concrete Abutment	LF	67	63	2	2	0
1080	Delamination/Spall/Patched Area	LF	4	0	2	2	0



Asset #00579(Routine, Underwater type 2)

SH 14-14- LM 8.72 over DITCH 11

Location: JCT SH 373 & 14

Team Lead: Richard Jones Inspection Date: 05/20/2024

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(215) Scour repair portion of bent 5 has some concrete deterioration/spalls. CS2 and CS3							
227	Reinforced Concrete Pile	EA	18	14	4	0	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	3	0	3	0	0
(227) Bent 3 pile 1 has 4' of vertical cracks approximately 10' below cap. CS2 Piles 2 - 4 have minor abrasion. CS2							
234	Reinforced Concrete Pier Cap	LF	74	65	2	7	0
1080	Delamination/Spall/Patched Area	LF	3	0	2	1	0
1090	Exposed Rebar	LF	6	0	0	6	0
(234) Bent 2 cap has 1' rebar exposed on bottom between piles 1 and 2, and 1' rebar exposed on bottom near pile 4. CS3 Bent 3 cap has a 1' spall on bottom near pile 1, and spalls with exposed rebar on bottom near pile 4. CS3 Bent 4 cap has a crack between piles 2 and 3 on bottom that runs up back face. Cap has spalls with rebar exposed on bottom between piles 2 and 3 and near pile 4. CS3							
305	Assembly Joint without Seal	LF	120	0	108	0	12
2350	Debris Impaction	LF	108	0	108	0	0
2370	Metal Deterioration or Damage	LF	12	0	0	0	12
(305) Asphalt is cracked and raveling out over joints. Bent 3 slide plate is loose and cracked into near center line and center of Rt lane.							
311	Movable Bearing	EA	20	20	0	0	0
(311) Rocker bearings were replaced with channels and round stock in the past. All bearings were painted 2021.							
313	Fixed Bearing	EA	20	10	10	0	0
1000	Corrosion	EA	10	0	10	0	0
(313) All bearings were painted 2021. Fixed bearings have some minor rust and pack rust.							
330	Metal Bridge Railing	LF	272	0	257	15	0
1000	Corrosion	LF	257	0	257	0	0
1020	Connection	LF	8	0	0	8	0
7000	Damage	LF	7	0	0	7	0
515	Steel Protective Coating	SF	925	0	0	0	925
3440	Effectiveness (Steel Protective Coatings)	LF	925	0	0	0	925
(330) Metal rails have surface rust throughout. CS2 Several bridge rail posts are cracked, spalled or broken at bottom. Some have exposed rebar. CS3							



Elevation



Roadway



Wearing surface



Under surface



Efflorescence in exterior bays



Span 1 bent 1 girder 1 t splice has some flaking rust



Typical full height welded web splice



Typical welded & bolted haunch repairs



Bent 1



Bent 5



Left side, upstream: channel



Right side, downstream: channel



2022 channel

Maintenance Needs

Date Reported: 05/23/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Deck

Deficiency Description

Asphalt wearing surface has map cracking with some rutting in outside wheel path and gutters. Asphalt is cracked, delaminated and spalling up to 2 in. deep out over all joints.

Remarks



Typ joint



Typ wheel path cracks and spalls



Bent 1 joint



Bent 3

Maintenance Needs

Date Reported: 05/28/2014

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Deck

Deficiency Description

Several bridge rail posts are cracked, spalled or broken at bottom. Some have rebar exposed. Metal rails have surface rust throughout.

8 ft. of rail is loose & moving under traffic load at southwest corner.

Remarks



Span 1, Right side: 5th post broken at bottom



Span 1, Right side: bridge rail damage over bent 2



Span 4, Left side: last bridge rail post

Maintenance Needs

Date Reported: 06/26/2018

Priority: C - Important

Type of Work: Repair (General)

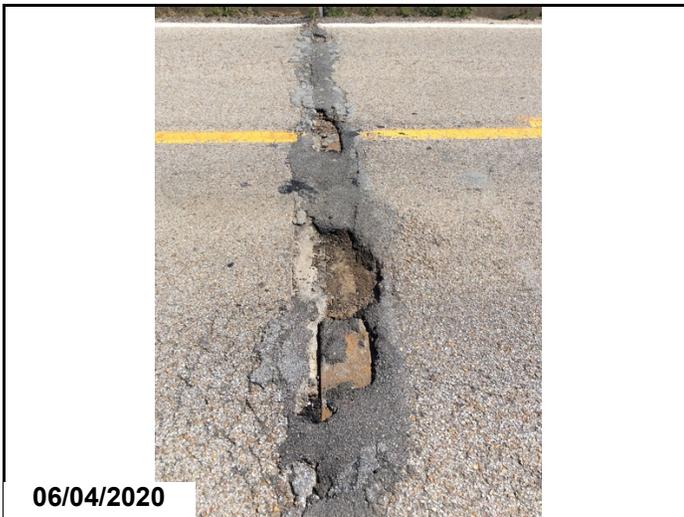
Status: Monitor

Component: Deck

Deficiency Description

Bent 3 slide plate is loose and cracked into near center line and center of Rt lane.

Remarks



Maintenance Needs

Date Reported: 05/29/2014

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

Deficiency Description

Bent 2 cap right end has 1' rebar exposed.

Bent 3 pile 1 has 4' of spalls & cracks 10' below cap.

Bent 3 spalled area bottom of cap with rebar exposed 1', and left side has shelled out area with no exposed rebar 1' area.

Bent 4 cap has a spalled & delaminated area with exposed rebar near pile 4 and right end has spall with rebar exposed and a vertical crack at bottom of cap.

Remarks



Bent 4, Right side: spall & rebar exposed near pile 4

Maintenance Needs

Date Reported: 06/26/2018

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Approach

Deficiency Description

Approach roadways have settlement with areas of map cracking and a few potholes.

Remarks



Bent 5 approach



Bent 1 approach

Maintenance Needs

Date Reported: 05/30/2024

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

Deficiency Description

Drift is built up at bent 3.

Remarks



Bent 3 drift



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-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

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



Asset #00579(Routine, Underwater type 2)

SH 14-14- LM 8.72 over DITCH 11

Location: JCT SH 373 & 14

Team Lead: Richard Jones Inspection Date: 05/20/2024

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)



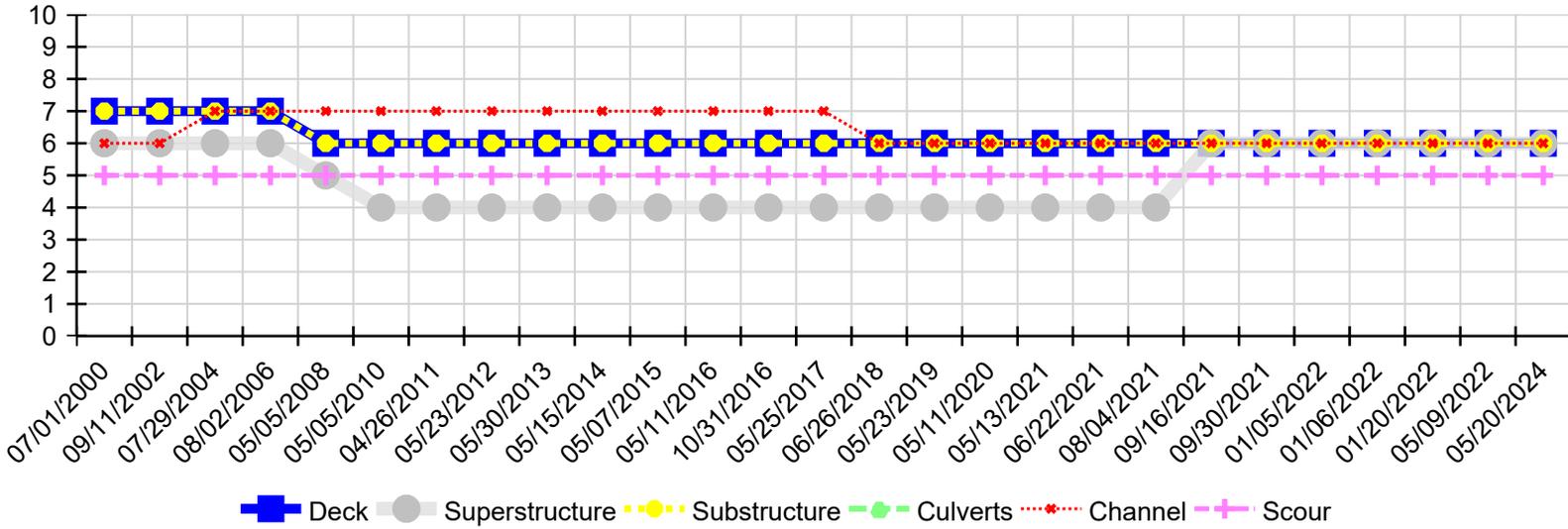
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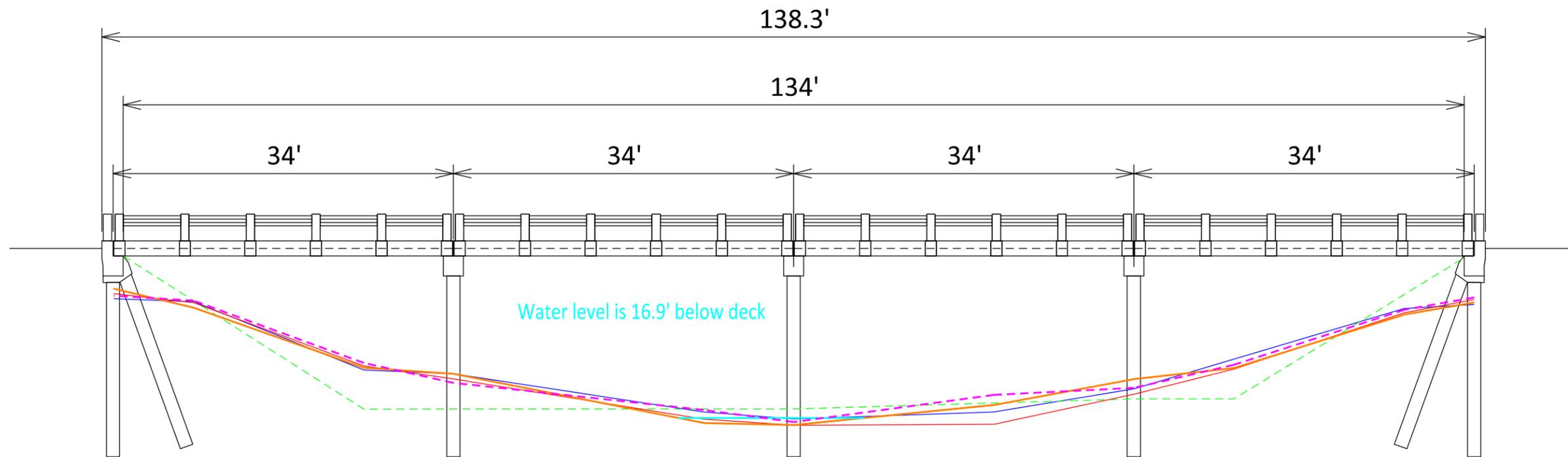
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Condition History

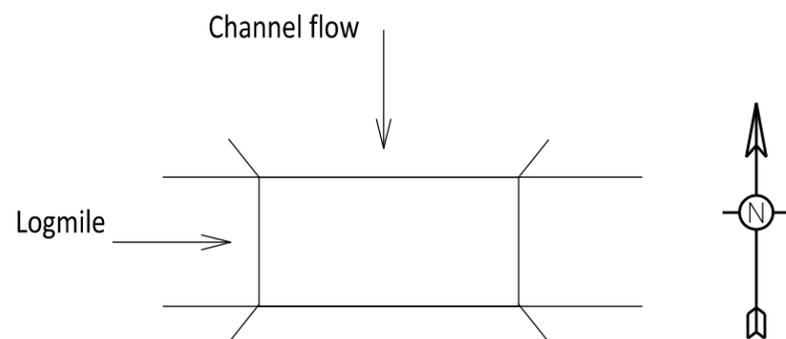


Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/20/2024	6	6	6	N	6	5
05/09/2022	6	6	6	N	6	5
01/20/2022	6	6	6	N	6	5
01/06/2022	6	6	6	N	6	5
01/05/2022	6	6	6	N	6	5
09/30/2021	6	6	6	N	6	5
09/16/2021	6	6	6	N	6	5
08/04/2021	6	4	6	N	6	5
06/22/2021	6	4	6	N	6	5
05/13/2021	6	4	6	N	6	5
05/11/2020	6	4	6	N	6	5
05/23/2019	6	4	6	N	6	5
06/26/2018	6	4	6	N	6	5
05/25/2017	6	4	6	N	7	5
10/31/2016	6	4	6	N	7	5
05/11/2016	6	4	6	N	7	5
05/07/2015	6	4	6	N	7	5
05/15/2014	6	4	6	N	7	5
05/30/2013	6	4	6	N	7	5
05/23/2012	6	4	6	N	7	5
04/26/2011	6	4	6	N	7	5
05/05/2010	6	4	6	N	7	5
05/05/2008	6	5	6	N	7	5
08/02/2006	7	6	7	N	7	5
07/29/2004	7	6	7	N	7	5
09/11/2002	7	6	7	N	6	5
07/01/2000	7	6	7	N	6	5



Bent 1	+08	+25	Bent 2	+25	Bent 3	+20	Bent 4	+10	+27	Bent 5
		16.0'	16.0'		16.0'		15.0'	15.0'		
5.0'	5.3'	12.1'	12.5'	16.3'	17.0'	16.3'	14.0'		6.0'	5.6'
4.5'	5.4'	11.7'	13.0'	17.0'	17.6'	17.5'	14.5'	12.0'	6.4'	5.1'
4.7'	5.2'	11.4'	13.4'	16.1'	17.3'	14.6'	13.9'	11.6'	6.1'	4.9'
4.0'	5.9'	11.9'	12.5'	17.4'	17.6'	15.6'	13.0'	11.9'	6.6'	5.4'

Channel Sounded From Top Of Deck Upstream (Lt) Side
 Dashed Green Line & Sounding Readings Are From Layout Sheet
 Solid Blue Line & Sounding Readings Are Taken On 7-22-1992
 Solid Red Line & Sounding Readings Are Taken On 3-19-2012
 Pink dashed-line & Sounding Readings Are Taken 5-11-2020
 Orange line & sounding readings are taken 5-20-2024



AR KANSAS STATE HIGHWAY COMMISSION Little Rock, ARK.	Scale: 1"=12'	BRIDGE NO. 00579		District: 10
		Logmile: 8.72 Route: 14		County: Poinsett - 59
Inspection Dir: East	Channel Flow: South	Date Drawn: 5/20/2024	Insp. / Assist.: RRJ / NSR	Sect/Zone: 14

