



Latitude:36.07693, Longitude:-91.02554

Route:412 Section:06 Log:0.89

Arnold Road ID:38x412x6BxA, Arnold Log mile:0.892

District 10, 75 - Lawrence County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

### Bridge Posting Information

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

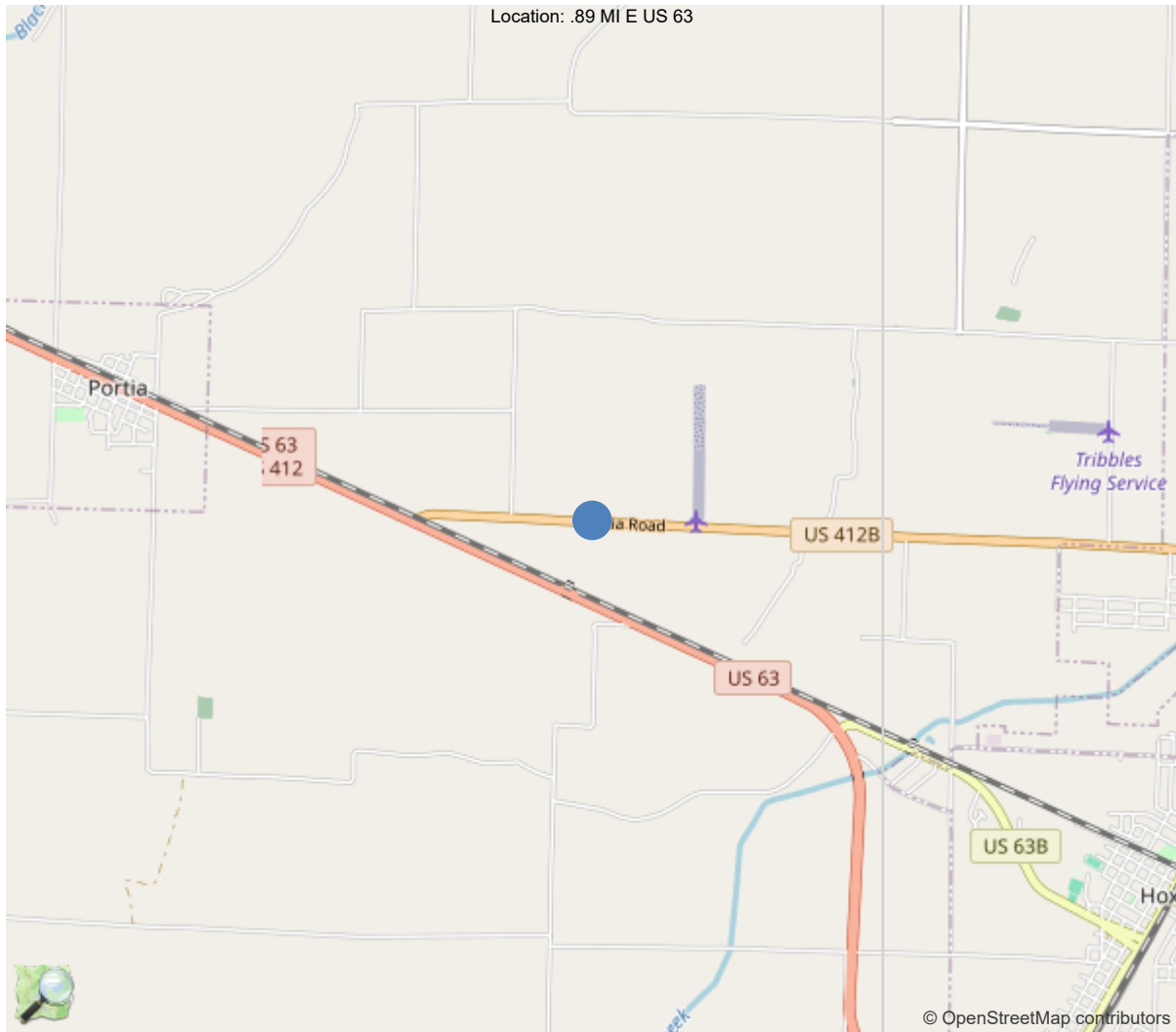
70 - Bridge Posting: 5 - Equal to or above legal loads

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



36.07693, -91.02554





**Asset #05725**(Routine, Underwater type 2)  
**US 412-06B-LM 0.89 over RUNNING WATER CREEK**  
**Location: .89 MI E US 63**  
**Team Lead: Richard Jones Inspection Date: 07/05/2023**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	05725
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	75 - Lawrence County
(4) Place Code	0
(6) Features Intersected	RUNNING WATER CREEK
(7) Facility Carried	US 412-06B-LM 0.89
(9) Location	.89 MI E US 63
(11) Mile Point	0.89 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412060
(16) Latitude	36.076933310677
(17) Longitude	-91.025541806221
(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	3
(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	1978
(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	3900
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	105 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	42.7 ft
(32) Approach Roadway Width (W/Shoulders)	44 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	0
(26) Functional Class	6 - Rural Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - 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	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 20
(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	8
(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	4373
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	07/05/2023		
(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.			





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**58 - Deck** (7 - GOOD CONDITION - some minor problems.)  
few minor problems. See elements

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**59 - Superstructure** (7 - GOOD CONDITION - some minor problems.)  
deterioration along edges. See elements

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**60 - Substructure** (7 - GOOD CONDITION - some minor problems.)  
few minor problems. See elements

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**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.)  
bank slump. dense vegetation in channel.

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ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	4484	2230	1529	725	0
1080	Delamination/Spall/Patched Area	SF	33	0	31	2	0
1090	Exposed Rebar	SF	42	0	0	42	0
1120	Efflorescence/Rust Staining	SF	8	0	7	1	0
1130	Cracking (RC and Other)	SF	691	0	11	680	0
1190	Abrasion/Wear (PSC/RC)	SF	1480	0	1480	0	0
(38) Top of slabs have several unsealed longitudinal cracks. Slabs have widespread abrasion, especially in wheel paths. Soffit portion of slabs has several delaminated areas or spalls with rebar exposed along edges. Slabs have a few longitudinal cracks with efflorescence or rust stains.							
215	Reinforced Concrete Abutment	LF	122	71	1	50	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
6000	Scour	LF	50	0	0	50	0
(215) Bent 1 abutment is undermined up to 1' below and 2.5' back under. Some riprap was added to embankment on Lt end sometime in the past. Bent 4 abutment is undermined near Rt end up to 1' below and 2.5' back under.							
227	Reinforced Concrete Pile	EA	20	9	11	0	0
1190	Abrasion/Wear (PSC/RC)	EA	9	0	9	0	0
6000	Scour	EA	2	0	2	0	0
(227) Bents 2 and 3 piles have some minor abrasion.							
234	Reinforced Concrete Pier Cap	LF	93	77	13	3	0
1080	Delamination/Spall/Patched Area	LF	9	0	6	3	0
1090	Exposed Rebar	LF	2	0	2	0	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(234) Caps have a few minor cracks or small delaminated areas. A few cracks have light efflorescence.							
301	Pourable Joint Seal	LF	182	85	0	86	11
2320	Seal Adhesion	LF	86	0	0	86	0
2330	Seal Damage	LF	11	0	0	0	11
(301) Poured joint material has loss of adhesion with some sections missing.							
321	Reinforced Concrete Approach Slab	SF	1080	815	210	55	0
1130	Cracking (RC and Other)	SF	265	0	210	55	0
(321) Approach slabs have few unsealed longitudinal cracks.							

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
331	Reinforced Concrete Bridge Railing	LF	210	180	30	0	0
1090	Exposed Rebar	LF	24	0	24	0	0
1130	Cracking (RC and Other)	LF	6	0	6	0	0
(331) Concrete rails have exposed rebar due to the lack of steel coverage.							





Side



Roadway



Deck



Span 2 soffit





Span 1



Bent 4 approach slab



Bent 1 approach slab

### Maintenance Needs

**Date Reported:** 07/14/2011

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Superstructure

### Deficiency Description

Soffit portion of slabs has several delaminated areas or spalls with rebar exposed along edges. Slabs have a few longitudinal cracks with efflorescence or rust stains.

### Remarks



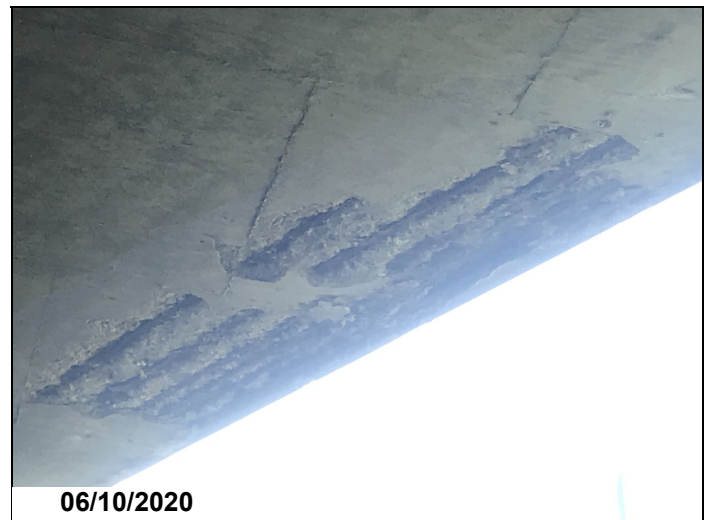
Span 1 Lt



Span 3 Rt



typ edge



Span 3 soffit RT SIDE 2019



### Maintenance Needs

Date Reported: 07/14/2011

Priority: C - Important

Type of Work: Miscellaneous

Status: Monitor

Component: Substructure

### Deficiency Description

Bent 1 abutment is undermined up to 1' below and 2.5' back under. Some riprap was added to embankment on Lt end sometime in the past.

Bent 4 abutment is undermined near Rt end up to 1' below and 2.5' back under.

### Remarks



2023 - Bent 1



2023 - Bent 4



undermining



undermining

**Maintenance Needs**

**Date Reported:** 07/08/2019

**Priority:** C - Important

**Type of Work:** Approach Leveling/Maintenance

**Status:** Open

**Component:** Approach

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**Deficiency Description**

Approach roadway asphalt has settlement at ends of approach slabs. Asphalt is cracked with several potholes.

**Remarks**

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Bent 1 approach at end of approach slab



**Maintenance Needs**

**Date Reported:** 07/10/2017

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Miscellaneous

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**Deficiency Description**

Poured joint material has loss of adhesion with some sections missing.

**Remarks**

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Bent 3 joint



## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	
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	Yes
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	Yes
A-62 - Hydro and LMC Advised	
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

### A-54 - Sealable Deck Cracks (Yes)



Span 1



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**A-55 - Deck Washing Needed**

**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 (Yes)**

**A-60 - Full Girder Painting Needed**

**A-61 - Polymer Overlay Advised (Yes)**

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

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



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**A-64 - Vegetation Removal Requested**



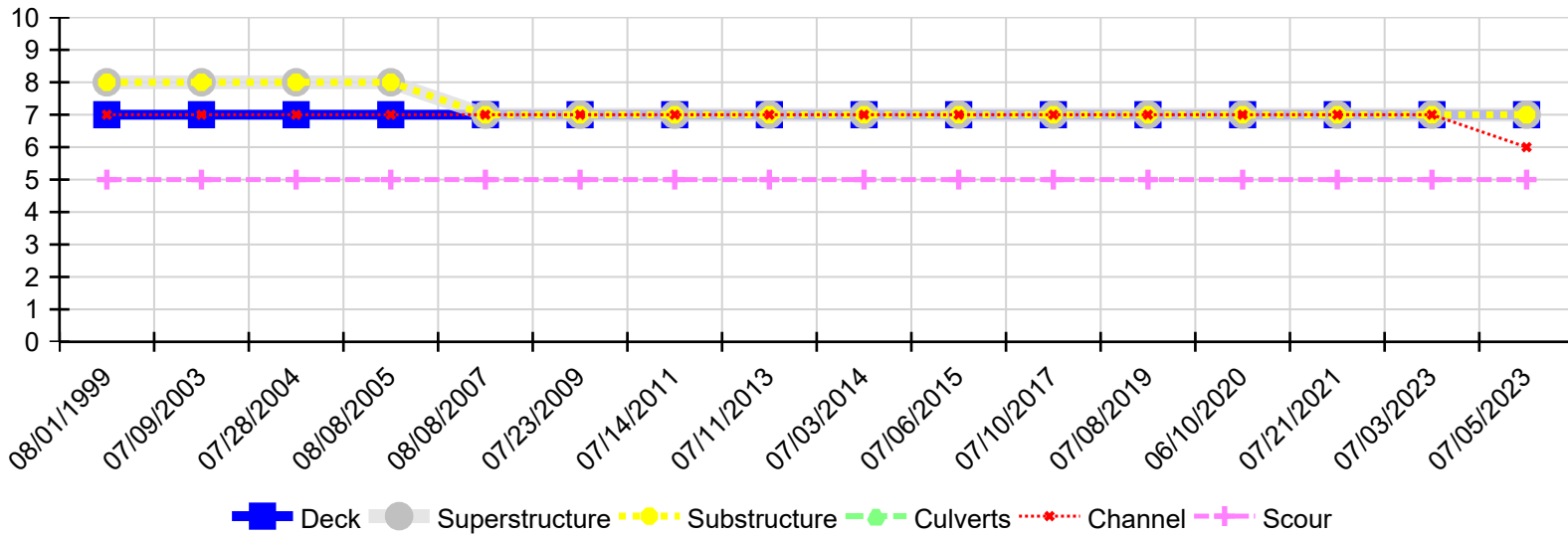


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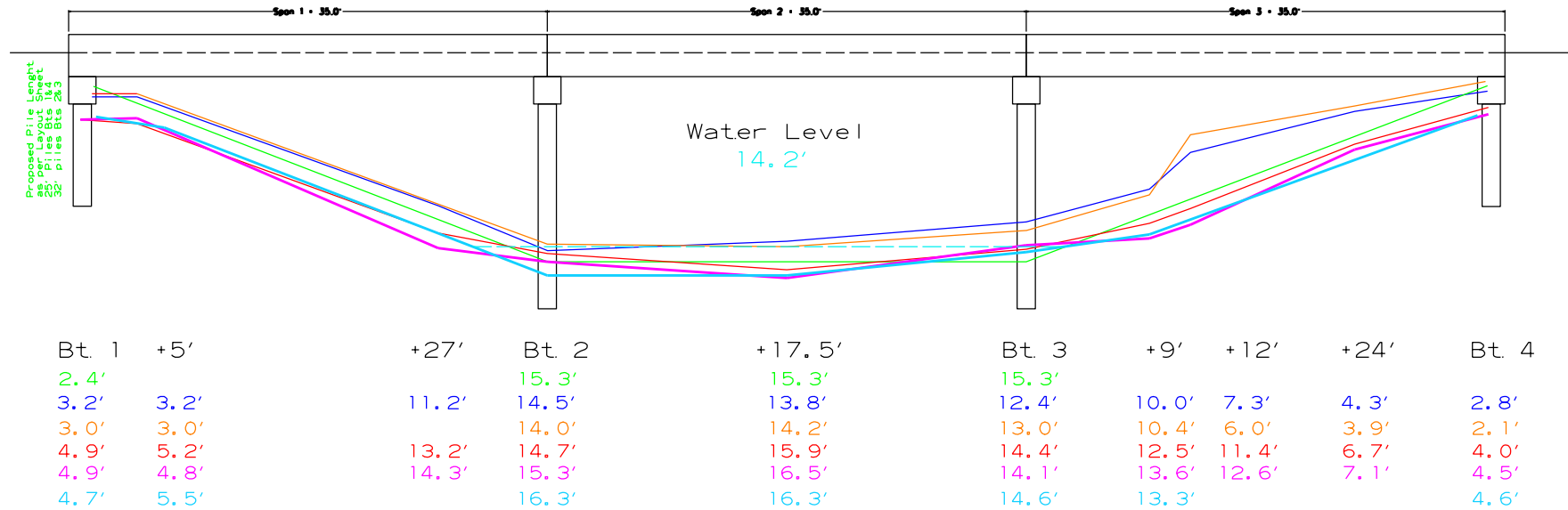
**Team Lead: Richard Jones Inspection Date: 07/05/2023**

Condition History



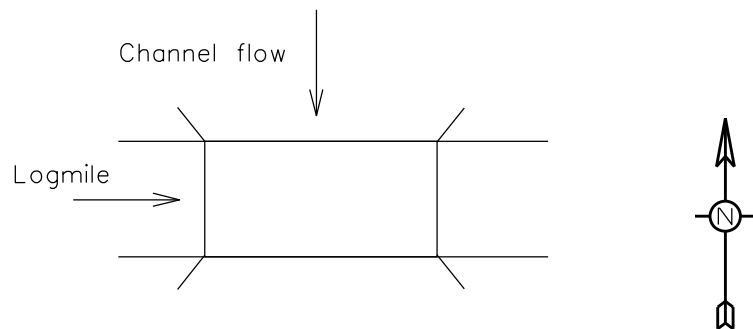
Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/05/2023	7	7	7	N	6	5
07/03/2023	7	7	7	N	7	5
07/21/2021	7	7	7	N	7	5
06/10/2020	7	7	7	N	7	5
07/08/2019	7	7	7	N	7	5
07/10/2017	7	7	7	N	7	5
07/06/2015	7	7	7	N	7	5
07/03/2014	7	7	7	N	7	5
07/11/2013	7	7	7	N	7	5
07/14/2011	7	7	7	N	7	5
07/23/2009	7	7	7	N	7	5
08/08/2007	7	7	7	N	7	5
08/08/2005	7	8	8	N	7	5
07/28/2004	7	8	8	N	7	5
07/09/2003	7	8	8	N	7	5
08/01/1999	7	8	8	N	7	5

05725 Overall Length=105.0'



Channel Sounded From Top of Deck, LEFT SIDE, UPSTREAM  
 Green Sounding Readings are From Lay Out Sheet  
 Blue Sounding Readings are From 8-20-1990 (First Time)  
 Gold Sounding Readings are From 7-23-2009  
 Red Sounding Readings are From 7-03-2014  
 Loss of Pile Penetration Since 2009: Bt.1=2.9', Bt. 4=2.9'  
 Purple Sounding Readings are From 7-8-2019  
 Light Blue Sounding taken 7-5-2023

Dash water level taken 7-5-2023



\*Not to Scale

Bridge No. 05725	Dist. 10	Co. Lawrence - 75
Logmile .89	Rt. 412	Sect/Zone - 75
Date Drawn 6/14/23 Insp. / Assist. RRJ / NSR		