



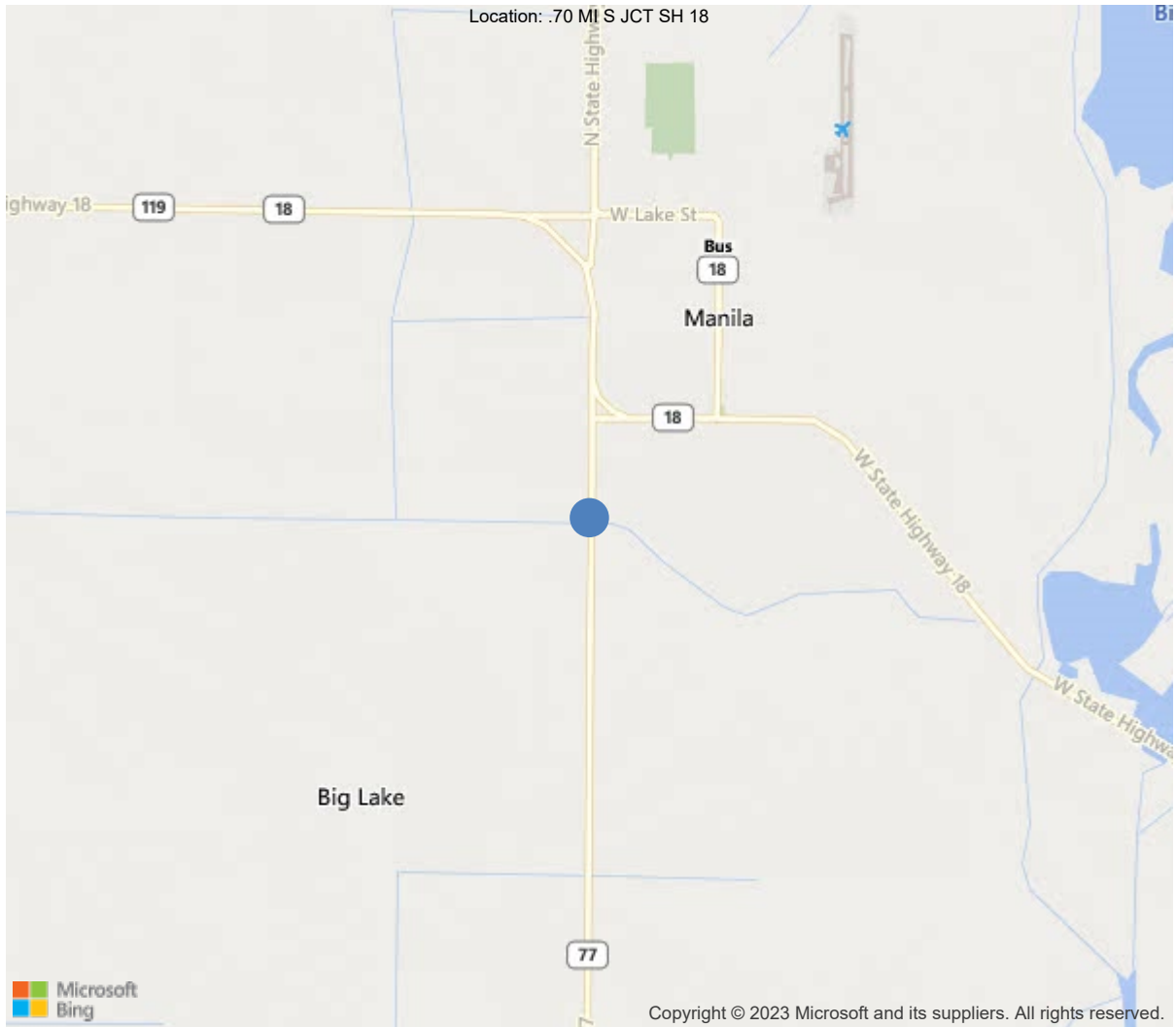
Latitude:35.86568, Longitude:-90.17754

Route:77 Section:02 Log:0.71

Arnold Road ID:47x77x2xA, Arnold Log mile:0.154

District 10, 93 - Mississippi County

Owner: 1 - State Highway Agency



35.86568, -90.17754





Asset #02138(Other Special Recurring, Underwater type 2)

SH 77-02- LM 0.71 over DITCH NO 13

Location: .70 MI S JCT SH 18

Team Lead: James Adams, Inspection Date: 06/06/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02138
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	93 - Mississippi County
(4) Place Code	0
(6) Features Intersected	DITCH NO 13
(7) Facility Carried	SH 77-02- LM 0.71
(9) Location	.70 MI S JCT SH 18
(11) Mile Point	0.71 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.86568
(17) Longitude	-90.17754
(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	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1952
(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	1700
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	4 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	18 ft
(49) Structure Length	54 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	26.5 ft
(32) Approach Roadway Width (W/Shoulders)	25.9 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	5 - None present but re-evalua
(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 exis
(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 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	4
(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	37
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	22
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(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	78 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 117
(96) Total Project Cost	\$ 269
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	1586
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	08/15/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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.			



Asset #02138(Other Special Recurring, Underwater type 2)

District: 10, County: 93 - Mississippi County

Team Lead: James Adams, Inspection Date: 06/06/2023

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

Underwater type 2 & special reoccurring (substructure) inspection performed this report.

Approach roadways have settlement at each end. Approach has settled up to 1.5in. at bent 4 right end.

Bridge rails have areas of minor surface rust.

Asphalt wearing surface has transverse cracks over bents.

Concrete curb has a few minor spalls with exposed rebar.

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

Soffit has minor longitudinal cracks near center line.

Span 1 soffit has a spall with 1ft. of exposed rebar.

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**60 - Substructure** (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Underwater type 2 & special reoccurring inspection performed this report.

Bent 2 cap has 2 small delaminated areas. Span 2 side has a stirrup bar exposed from lack of coverage.

Bent 2 pile 1 was spliced sometime in the past.

Bent 2 pile 2 is decayed and partially hollow.

Bent 2 piles 4 and 5 have up to 1in. of outside decay.

Bent 3 cap has a 1ft. delaminated area on bottom between piles 4 and 5.

Bent 3 pile 1 has core decay and is partially hollow.

Bent 3 pile 2 has 1in. outside decay with a few outer delaminated areas.

Bent 3 piles 3 and 4 have checks with up to 1in. outside decay.

Bent 3 pile 5 is decayed and hollow. Pile has soft core and partial outer shell remaining.

Bent 4 has a 1ft. spall and 1ft. of exposed rebar. Right end is undermined for 5ft. up to 1ft. below and 2ft. back under.

Undermining extends into roadway embankment and roadway.

Large beaver dam east side in channel is restricting flow.

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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.)

Underwater type 2 inspection performed this report.

Bent 4 abutment right end is undermined for 5ft. up to 1ft. below and 2ft. back under.

Undermining extends into roadway embankment and roadway.

Large beaver dam east side in channel is restricting flow.

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**A-46 - Asset Files**

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

Underwater type 2 inspection performed this report.

Bent 4 abutment right end is undermined for 5ft. up to 1ft. below and 2ft. back under.

Undermining extends into roadway embankment and roadway.

Large beaver dam east side in channel is restricting flow.

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**SH 77-02- LM 0.71 over DITCH NO 13**

**Location: .70 MI S JCT SH 18**

**Team Lead: James Adams, Inspection Date: 06/06/2023**

## Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	1431	1378	52	1	0
1090	Exposed Rebar	SF	1	0	0	1	0
1130	Cracking (RC and Other)	SF	52	0	52	0	0
510	Wearing Surfaces	SF	1296	1140	0	156	0
3220	Crack (Wearing Surface)	SF	156	0	0	156	0
(38) Soffit has minor longitudinal cracks near center line. Span 1 soffit has a spall with 1ft. of exposed rebar Concrete curb has a few minor spalls with exposed rebar.							
(510-38) . Asphalt wearing surface has transverse cracks over bents							

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

Comment: Underwater type 2 & special reoccurring (substructure) inspection performed this report.

Approach roadways have settlement at each end. Approach has settled up to 1.5in. at bent 4 right end.

Bridge rails have areas of minor surface rust.

Asphalt wearing surface has transverse cracks over bents.

Concrete curb has a few minor spalls with exposed rebar.



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## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4

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

Comment: Soffit has minor longitudinal cracks near center line.

Span 1 soffit has a spall with 1ft. of exposed rebar.





## Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
228	Timber Pile	EA	11	2	6	2	1
1140	Decay/Section Loss	EA	8	0	5	2	1
6000	Scour	EA	1	0	1	0	0
(228) Bent 2 pile 1 was spliced sometime in the past. Bent 2 pile 2 is decayed and partially hollow. Bent 2 piles 4 and 5 have up to 1in. of outside decay. Bent 3 pile 1 has core decay and is partially hollow. Bent 3 pile 2 has 1in. outside decay with a few outer delaminated areas. Bent 3 piles 3 and 4 have checks with up to 1in. outside decay. Bent 3 pile 5 is decayed and hollow. Pile has soft core and partial outer shell remaining.							
234	Reinforced Concrete Pier Cap	LF	110	104	5	1	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	2	0	1	1	0
(234) Bent 2 cap has 2 small delaminated areas. Span 2 side has a stirrup bar exposed from lack of coverage Bent 3 cap has a 1ft. delaminated area on bottom between piles 4 and 5 Bent 4 has a 1ft. spall and 1ft. of exposed rebar. Right end is undermined for 5ft. up to 1ft. below and 2ft. back under.							

### 60 - Substructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Comment: Underwater type 2 & special reoccurring inspection performed this report.

Bent 2 cap has 2 small delaminated areas. Span 2 side has a stirrup bar exposed from lack of coverage.

Bent 2 pile 1 was spliced sometime in the past.

Bent 2 pile 2 is decayed and partially hollow.

Bent 2 piles 4 and 5 have up to 1in. of outside decay.

Bent 3 cap has a 1ft. delaminated area on bottom between piles 4 and 5.

Bent 3 pile 1 has core decay and is partially hollow.

Bent 3 pile 2 has 1in. outside decay with a few outer delaminated areas.

Bent 3 piles 3 and 4 have checks with up to 1in. outside decay.

Bent 3 pile 5 is decayed and hollow. Pile has soft core and partial outer shell remaining.

Bent 4 has a 1ft. spall and 1ft. of exposed rebar. Right end is undermined for 5ft. up to 1ft. below and 2ft. back under.

Undermining extends into roadway embankment and roadway.

Large beaver dam east side in channel is restricting flow.

### 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.)

Comment: Underwater type 2 inspection performed this report.

Bent 4 abutment right end is undermined for 5ft. up to 1ft. below and 2ft. back under.

Undermining extends into roadway embankment and roadway.

Large beaver dam east side in channel is restricting flow.



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Location: .70 MI S JCT SH 18

Team Lead: James Adams, Inspection Date: 06/06/2023

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
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Span 2



Beaver dam upstream  
6-6-2023



Deck



South





Elevation

**Maintenance Needs**

**Date Reported:** 08/08/2018

**Priority:** A - Safety deficiency; requires prompt action

**Status:** Assigned

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

**Component:** Substructure

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**Deficiency Description**

Bent 3 pile 5 is decayed and hollow. Pile has soft core and partial outer shell remaining.

**Remarks**

to Dist Bridge Crew for repairs when they have time - KAW 8/30/18

Bridge Crew currently working on other priorities, will continue to monitor. KAW 6/28/19

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Bent 3 pile 5  
6-6-2023









B3 p5



b3 p4 & 5



Bent 3 pile 5



Bent 3 pile 5

**Maintenance Needs**

**Date Reported:** 08/01/2016

**Priority:** B - Pressing

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

**Status:** Monitor

**Component:** Substructure

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**Deficiency Description**

Bent 2 pile 2 is decayed and partially hollow.  
Bent 2 piles 4 and 5 have up to 1" of outside decay.

Bent 3 pile 1 has core decay and is partially hollow.  
Bent 3 pile 2 has 1" outside decay with a few outer delaminated areas.  
Bent 3 piles 3 and 4 have checks with up to 1" outside decay.

**Remarks**

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Bent 3 pile 4



Bent 3 pile 1,2,3





Bent 2 pile 4&5



Bent 2 pile 2





b2 p2



Bent 2 pile 4





Bent 2 pile 5



Bent 3 pile 1





Bent 3 pile 2



Bent 3 pile 4



Bent 2 piles 4 and 5



**Asset #02138**(Other Special Recurring, Underwater type 2)

**SH 77-02- LM 0.71 over DITCH NO 13**

**Location: .70 MI S JCT SH 18**

**Team Lead:** James Adams, **Inspection Date:** 06/06/2023

#### **Maintenance Needs**

**Date Reported:** 08/01/2016

**Priority:** D- Routine

**Status:** Monitor

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

**Component:** Approach

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#### **Deficiency Description**

Approach roadways have settlement at each end. Approach has settled up to 1.5" at bent 4 Rt

#### **Remarks**

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**Maintenance Needs**

**Date Reported:** 08/01/2016

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Substructure

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**Deficiency Description**

Bent 2 cap has 2 small delaminated areas. Ahead face has a stirrup bar exposed from lack of coverage.  
Bent 3 cap has a 1' delaminated area on bottom between piles 4 and 5.

**Remarks**

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Bent 2



**Maintenance Needs**

**Date Reported:** 08/08/2018

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Channel

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**Deficiency Description**

Bent 4 abutment Rt end is undermined for 5' up to 1' below and 2' back under.

**Remarks**

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Bent 4 right



Bent 4 right



Bent 4 Rt



**Asset #02138**(Other Special Recurring, Underwater type 2)

**SH 77-02- LM 0.71 over DITCH NO 13**

**Location: .70 MI S JCT SH 18**

**Team Lead:** James Adams, **Inspection Date:** 06/06/2023

#### **Maintenance Needs**

**Date Reported:** 06/06/2023

**Priority:** D- Routine

**Status:** Open

**Type of Work:** Channel Work/Drift Removal

**Component:**

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#### **Deficiency Description**

Large beaver dam east side in channel is restricting flow.

#### **Remarks**

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**Asset #02138**(Other Special Recurring, Underwater type 2)

**SH 77-02- LM 0.71 over DITCH NO 13**

**Location: .70 MI S JCT SH 18**

**Team Lead:** James Adams, **Inspection Date:** 06/06/2023

## **Routine Maintenance**

Check Box Maintenance Items

<b>Type of Maintenance</b>	<b>Is recommended?</b>
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	
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	





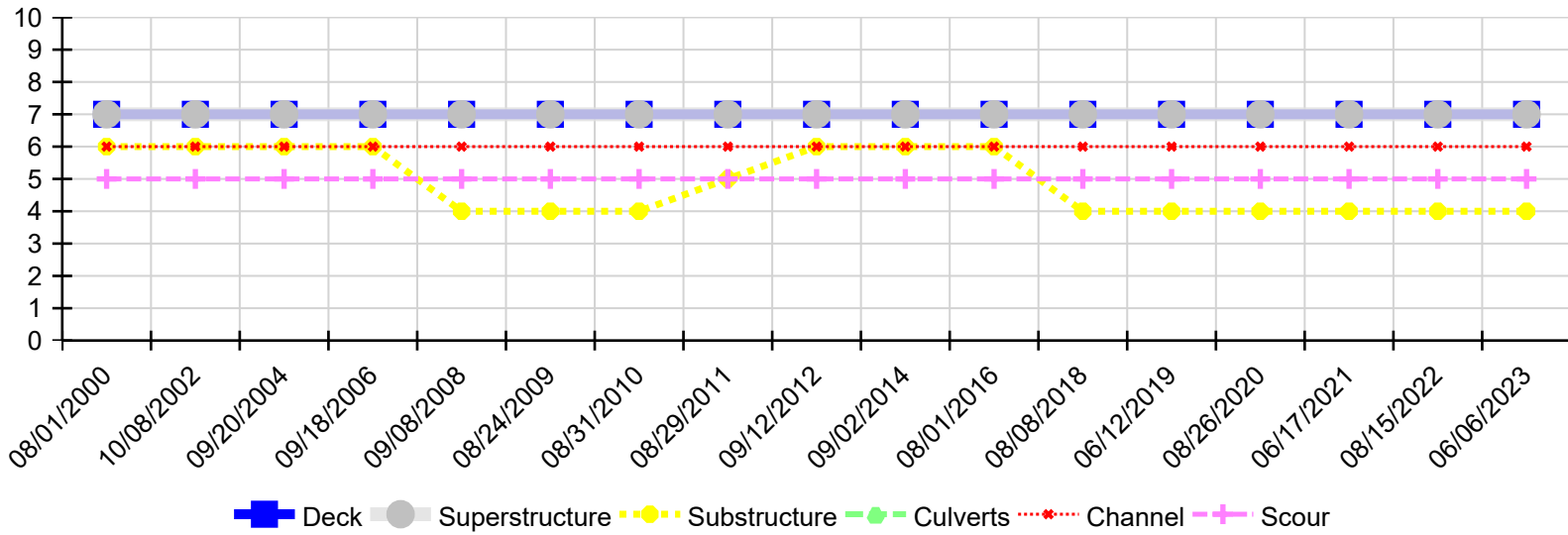
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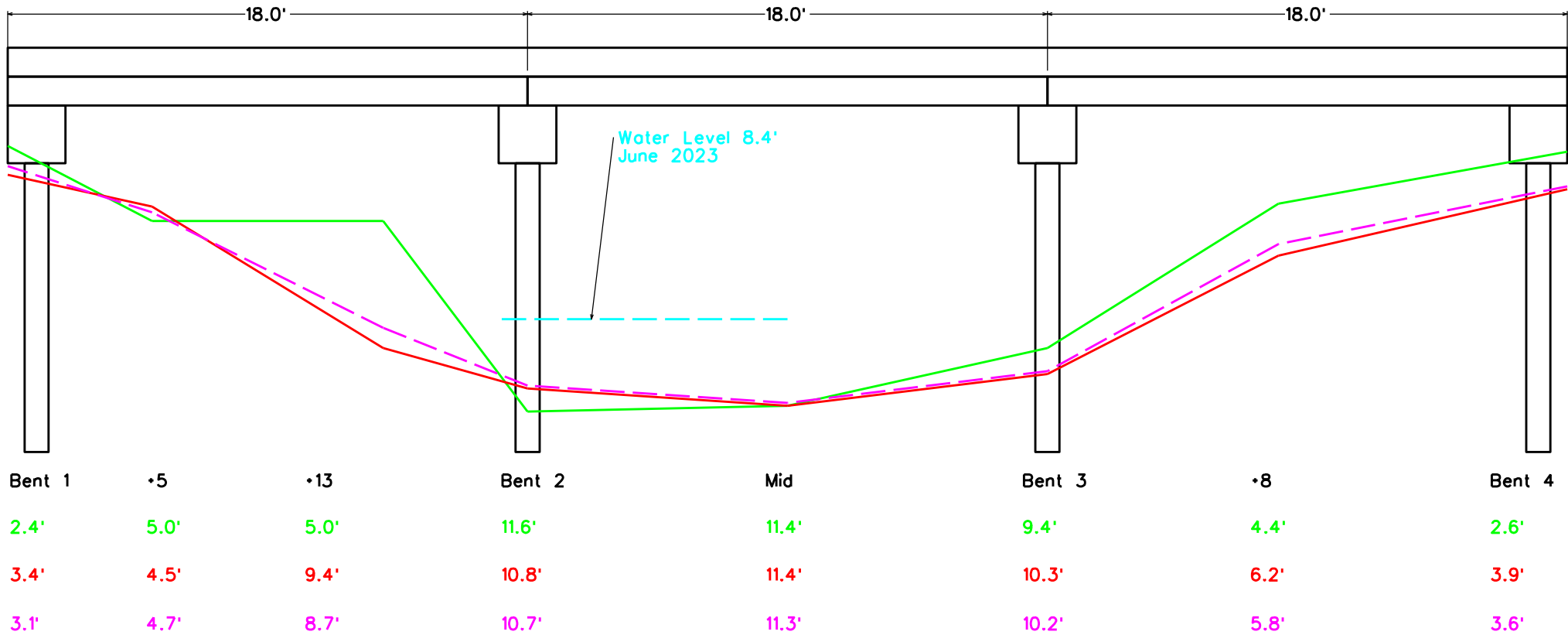
**Team Lead: James Adams, Inspection Date: 06/06/2023**

### Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
06/06/2023	7	7	4	N	6	5
08/15/2022	7	7	4	N	6	5
06/17/2021	7	7	4	N	6	5
08/26/2020	7	7	4	N	6	5
06/12/2019	7	7	4	N	6	5
08/08/2018	7	7	4	N	6	5
08/01/2016	7	7	6	N	6	5
09/02/2014	7	7	6	N	6	5
09/12/2012	7	7	6	N	6	5
08/29/2011	7	7	5	N	6	5
08/31/2010	7	7	4	N	6	5
08/24/2009	7	7	4	N	6	5
09/08/2008	7	7	4	N	6	5
09/18/2006	7	7	6	N	6	5
09/20/2004	7	7	6	N	6	5
10/08/2002	7	7	6	N	6	5
08/01/2000	7	7	6	N	6	5

02138



LOG RUNS SOUTH

Soundings taken from top of deck, LEFT SIDE

Green line & readings taken on 8-13-90

Red line & readings taken on 8-8-2018

Pink dashed-line taken 6-6-2023