



Latitude:35.92825, Longitude:-93.68330

Route:23 Section:08 Log:15.4

Arnold Road ID:44x23x8xA, Arnold Log mile:15.305

District 09, 87 - Madison County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

Bridge Posting Information

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

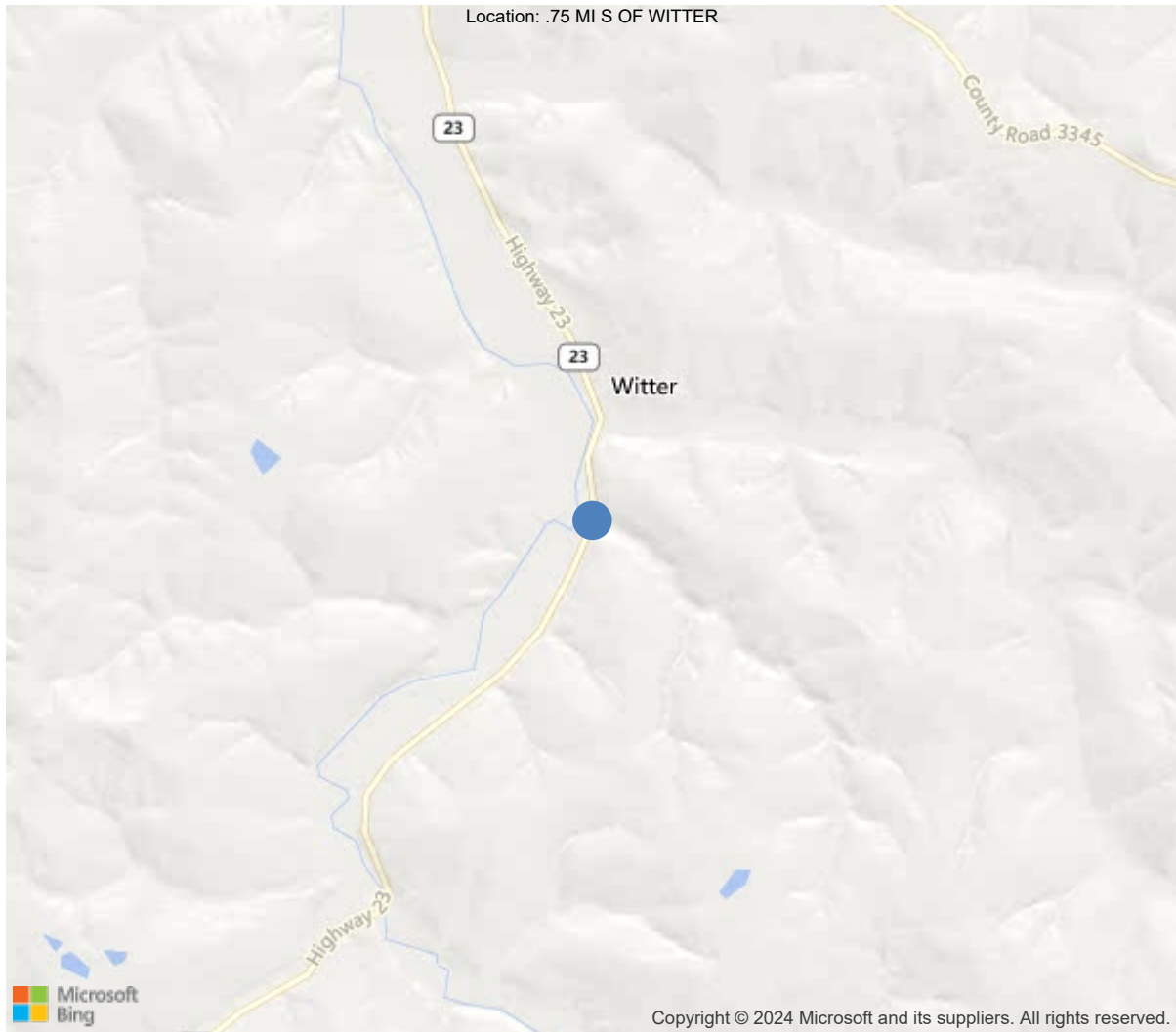
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	28		
Code 9 (31 Tons)	33		
Code 5 (40 Tons)	41		

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



35.92825, -93.68330



Asset #02947(Routine, Underwater type 2)

SH 23 Madison over SLOW TOM CR

Location: .75 MI S OF WITTER

Team Lead: Nathan Rowland Inspection Date: 09/08/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02947
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	87 - Madison County
(4) Place Code	0
(6) Features Intersected	SLOW TOM CR
(7) Facility Carried	SH 23 Madison
(9) Location	.75 MI S OF WITTER
(11) Mile Point	15.4 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000023080
(16) Latitude	35.92825
(17) Longitude	-93.6833
(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	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1955
(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	1100
(30) Year of ADT	2018
(109) Truck ADT	13 %
(19) Bypass, Detour Length	18 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	28 ft
(49) Structure Length	56 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	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	22 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	25.9 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	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	5
(59) Superstructure	5
(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	45
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	27
(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	8
(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 to
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	1152
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	09/08/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	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.			



Asset #02947 (Routine, Underwater type 2)

SH 23 Madison over SLOW TOM CR

Location: .75 MI S OF WITTER

Team Lead: Nathan Rowland **Inspection Date:** 09/08/2022

General Observation

09/08/2022 WNR & DBM:

Routine and Underwater type II inspections conducted this date. See Element notes for documentation.

Logged South to North.



Asset #02947 (Routine, Underwater type 2)

SH 23 Madison over SLOW TOM CR

Location: .75 MI S OF WITTER

Team Lead: Nathan Rowland Inspection Date: 09/08/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	1344	497	24	823	0
1080	Delamination/Spall/Patched Area	SF	24	0	24	0	0
1120	Efflorescence/Rust Staining	SF	823	0	0	823	0
510	Wearing Surfaces	SF	1344	1033	134	167	10
3220	Crack (Wearing Surface)	SF	311	0	134	167	10
(12) 09/08/2022 WNR & DBM: -Driving surface has an asphalt overlay with areas of longitudinal and transverse cracking throughout with significant transverse cracking at all three joints. -The undersurface of the deck/superstructure has numerous areas of mapcracking with efflorescence. The most extreme areas are along the exterior edges and in the vertical faces which has heavy mapcracking with efflorescence and delaminated areas. -Maintenance forces have repaired the left and right concrete curb. (510-12) 09/08/2022 WNR & DBM: -The ACHM wearings surface of the deck has multiple longitudinal and horizontal cracking in random locations throughout the surface of the deck.							
215	Reinforced Concrete Abutment	LF	56	56	0	0	0
(215) 09/08/2022 WNR & DBM: -No apparent noteworthy deficiencies at this inspection.							
225	Steel Pile	EA	4	0	4	0	0
1000	Corrosion	EA	4	0	4	0	0
515	Steel Protective Coating	SF	136	0	0	62	74
3440	Effectiveness (Steel Protective Coatings)	EA	136	0	0	62	74
(225) 09/08/2022 WNR & DBM: -All piling at the intermediate bent have a failing paint system with active corrosion on the majority of the piling that is exposed. -The previously documented section loss has been repaired by state maintenance forces. The repair is a complete replacement of the portion of steel piling that had the section loss. (515-225) 09/08/2022 WNR & DBM:							
234	Reinforced Concrete Pier Cap	LF	28	0	9	19	0
1080	Delamination/Spall/Patched Area	LF	9	0	9	0	0
1120	Efflorescence/Rust Staining	LF	19	0	0	19	0
(234) 09/08/2022 WNR & DBM: -Bent #1 cap left and right sides - maintenance forces have repaired the ends of the caps with cast-in-place concrete. -The cap has chloride contamination with heavy mapcracking and efflorescence throughout with delaminated areas in locations.							
330	Metal Bridge Railing	LF	112	79	26	7	0
1010	Cracking	LF	33	0	26	7	0
515	Steel Protective Coating	SF	354	0	0	354	0



Elevation looking east



Inventory looking north



View of bent #1 cap ahead side



View of span #1 undersurface



View of span #2 undersurface



Downstream view



Upstream view



General view of deck



General view of deck



General view of span #2



General view of span #1



Typical view of steel piling and cap at bent #1.



Upstream view



Downstream view.



Inventory looking North



Inventory 1 looking north.



Bent 1 ahead side.



General view of piling.



General view of deck.



Span 1 typical cracking with efflorescence.



Bottom of railing posts left side.



Bent 1 behind side.



Span 1 typical cracking with efflorescence.



Bridge railing left.



Typical repair to steel piling.



Elevation looking west.



Bridge railing right.



Bottom of railing posts right side.



Elevation looking East

Maintenance Needs

Date Reported: 09/12/2017

Priority: C - Important

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

Status: Monitor

Component:

Deficiency Description

Substructure - The intermediate bent cap has chloride contamination with heavy map cracking and efflorescence with delaminated areas in the lower portion of the cap.

Remarks



01/01/2020

General view of bent #1 looking South.

Maintenance Needs

Date Reported: 09/12/2017

Priority: D- Routine

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

Status: Monitor

Component:

Deficiency Description

The concrete portion of the bridge railing has concrete deterioration mapcracking with efflorescence.

Remarks



Bottom of railing posts right side.



General view of side of bridge showing cracking and efflorescence.



Bottom of railing posts left side.

Maintenance Needs

Date Reported: 09/12/2017

Priority: D- Routine

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

Status: Monitor

Component:

Deficiency Description

Superstructure - The undersurface of the deck / superstructure has numerous areas of mapcracking with efflorescence. The most extreme areas are along the exterior edges and in the vertical faces which has heavy mapcracking with efflorescence and delaminated areas.

Remarks



Deck undersurface Span #1 typical view of cracking with efflorescence.



Right side of deck at abutment #2 - shear type crack.



General view of side of bridge showing cracking and efflorescence.



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Location: .75 MI S OF WITTER

Team Lead: Nathan Rowland Inspection Date: 09/08/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
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	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

A-56 - Joint Cleaning/Flushing Needed



Asset #02947(Routine, Underwater type 2)

SH 23 Madison over SLOW TOM CR

Location: .75 MI S OF WITTER

Team Lead: Nathan Rowland Inspection Date: 09/08/2022

A-57 - Girder End and Bearing Painting Needed

A-58 - Cap Cleaning/Flushing Needed

A-59 - Joint Repair Needed

A-60 - Full Girder 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



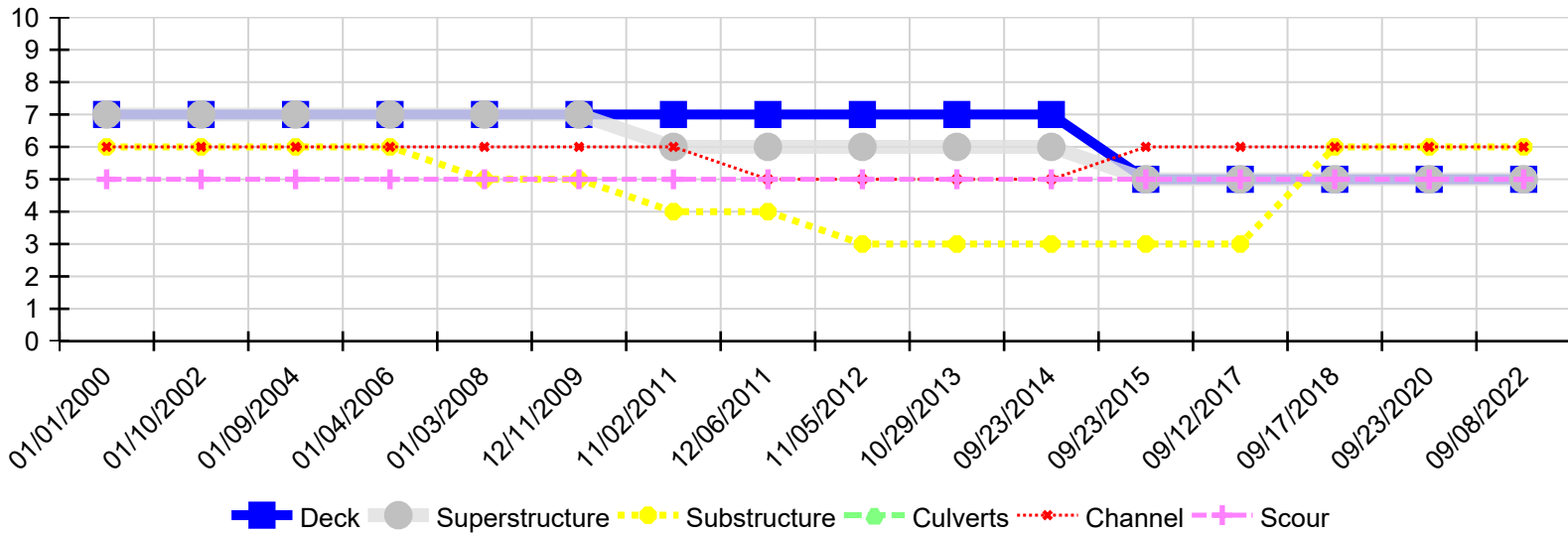
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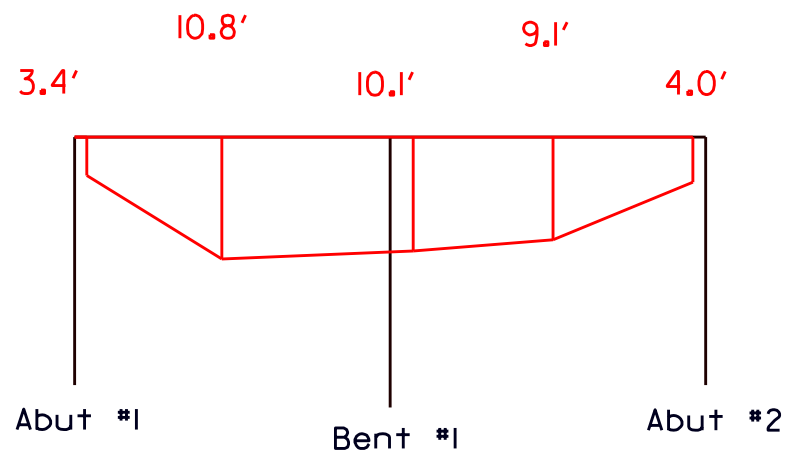
Condition History



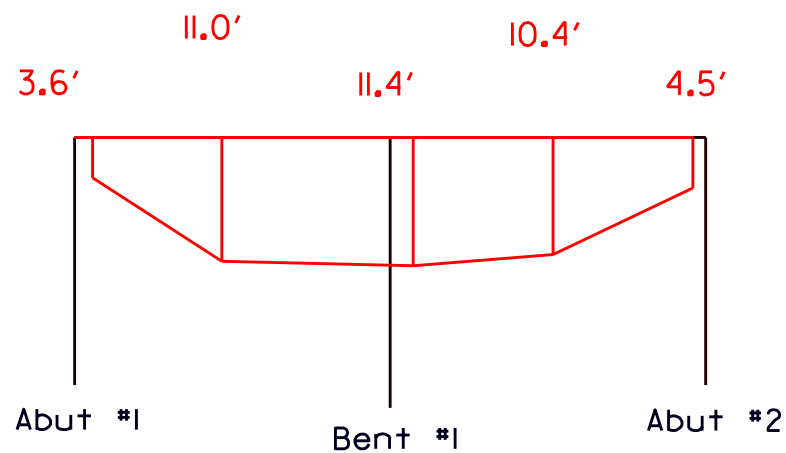
Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
09/08/2022	5	5	6	N	6	5
09/23/2020	5	5	6	N	6	5
09/17/2018	5	5	6	N	6	5
09/12/2017	5	5	3	N	6	5
09/23/2015	5	5	3	N	6	5
09/23/2014	7	6	3	N	5	5
10/29/2013	7	6	3	N	5	5
11/05/2012	7	6	3	N	5	5
12/06/2011	7	6	4	N	5	5
11/02/2011	7	6	4	N	6	5
12/11/2009	7	7	5	N	6	5
01/03/2008	7	7	5	N	6	5
01/04/2006	7	7	6	N	6	5
01/09/2004	7	7	6	N	6	5
01/10/2002	7	7	6	N	6	5
01/01/2000	7	7	6	N	6	5

2020 Sounding

02947



2020 NOTE: Measurements taken from top of curb upstream side (right)



2020 NOTE: Measurements taken from top of curb downstream side (left)

BRIDGE INSPECTION REPORT
FORM III

Inspected By: WNR & DBM

Date: 9-23-2020

District: 09 Co.: 44/Madison Rte.: 0023 Sect/Zone 08/0 Log Mile: 15.40 Str. No.: 02947