

Bridge 06639 Inspection Report



Latitude:36.12121, Longitude:-93.73477

Route:412 Section:03 Log:12.15

Arnold Road ID:44x412x3xA, Arnold Log mile:12.162

District 09, 87 - Madison County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

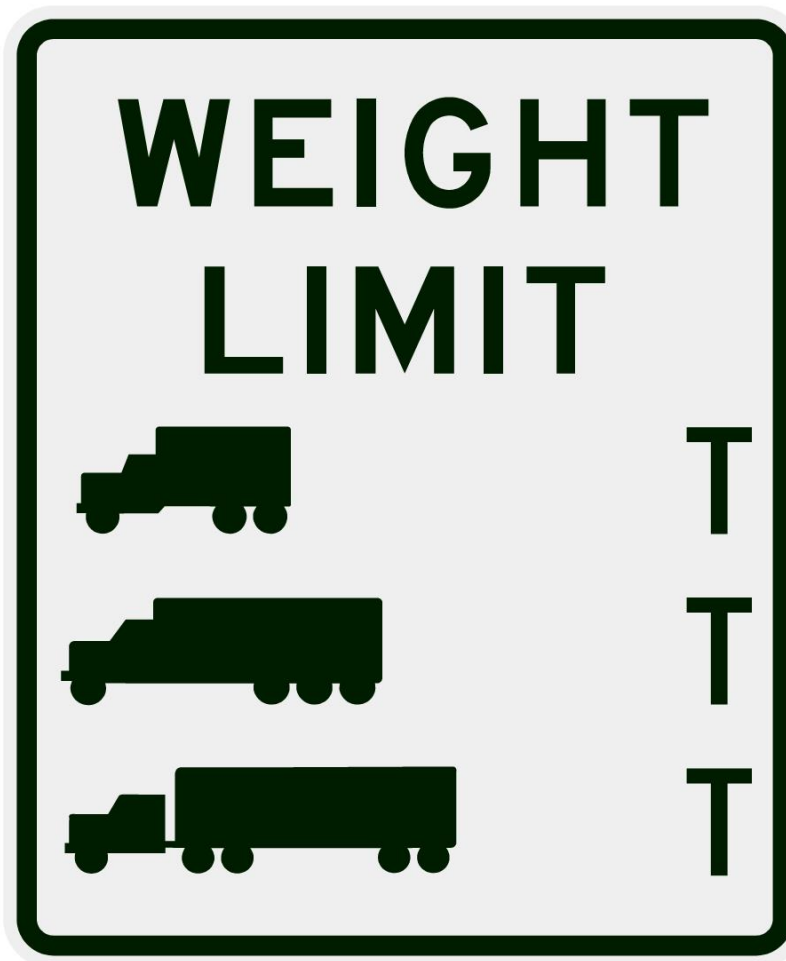
Bridge Posting Information

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

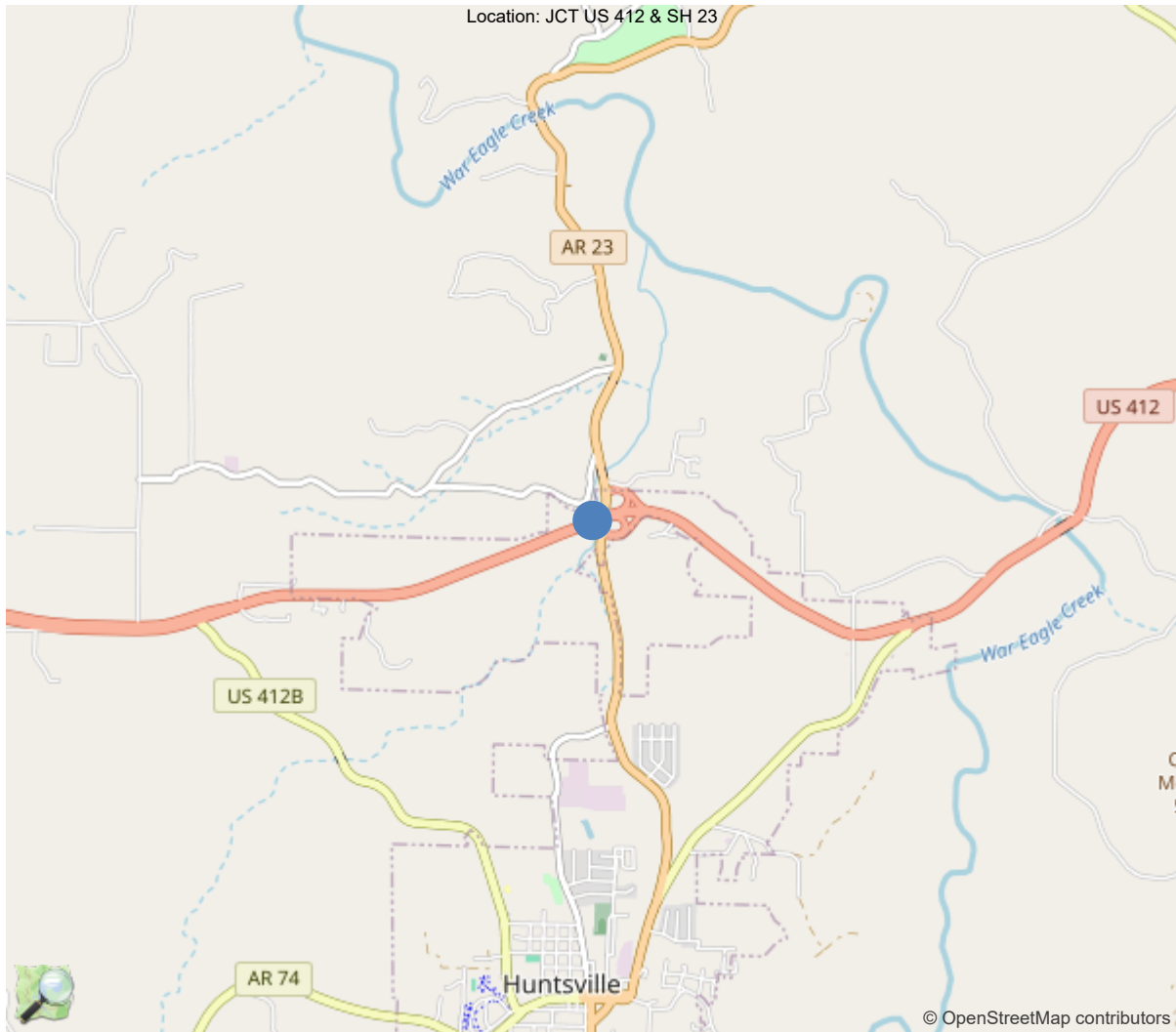
70 - Bridge Posting: 5 - Equal to or above legal loads

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



36.12121, -93.73477

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06639
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	87 - Madison County
(4) Place Code	33970
(6) Features Intersected	HOLMAN CREEK & SH 23
(7) Facility Carried	US 412 Madison Co.
(9) Location	JCT US 412 & SH 23
(11) Mile Point	12.15 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412030
(16) Latitude	36.12121
(17) Longitude	-93.73477
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4 - Steel continuous
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	5
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	1 - Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1998
(106) Year Reconstructed	0
(42) Type of Service	16
On	1 - Highway
Under	6 - Highway-waterway
(28) Lane	
On	4
Under	2
(29) Average Daily Traffic	11000
(30) Year of ADT	2024
(109) Truck ADT	%
(19) Bypass, Detour Length	2 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	92 ft
(49) Structure Length	422 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	53.1 ft
(52) Deck Width Out to Out	55.7 ft
(32) Approach Roadway Width (W/Shoulders)	51.8 ft
(33) Bridge Median	0 - No median
(34) Skew	30 Deg
(35) Structure Flared	1 - Yes, flared
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	54.1 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	16.33 ft
Ref:	
(55) Min Lat Underclear RT	20 ft
Ref:	
(56) Min Lat Underclear LT	20 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	2 - Rural Principal 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	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	6
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	4
(69) Clearances, Vertical/Horizontal	6
(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	6754
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			08/06/2025
(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.			



Inspection Notes

General Observation

Structure #06639 can be visually inspected from the roadway and channel with GoPro on an extension pole.

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

Overall, the deck is in satisfactory condition with cracking, cracking with efflorescence, and spalling.

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

Overall, the superstructure is in good condition with areas of loose bolts.

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Overall, the substructure is in good condition with minor cracking in the top of the backwalls.

62 - Culverts (N - Not applicable. Used if structure is not a culvert.)

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.) Overall, the channel is in satisfactory condition with trees and brush restricting the channel.

71 - Waterway Adequacy (9 - Bridge deck and roadway approaches above flood water elevations (high water.) Chance of overtopping is remote.)

72 - Approach Roadway Alignment (8 - Equal to present desirable criteria)

113 - Scour Critical Bridges (5 - Bridge foundations determined to be stable for assessed or calculated scour condition. Scour is determined to be within the limits of footing or piles (Example B) by assessment (i.e., bridge foundations are on rock formations that have been determined to resist scour within the service life of the bridge), by calculations or by installation of properly designed countermeasures (see HEC 23).)

A-51 - Inspection Direction (4 - W to E)

A-15 - Late Reason



Asset #06639(Routine)

US 412 Madison Co. over HOLMAN CREEK & SH 23

Location: JCT US 412 & SH 23

Team Lead: Anthony Wood Inspection Date: 08/06/2025

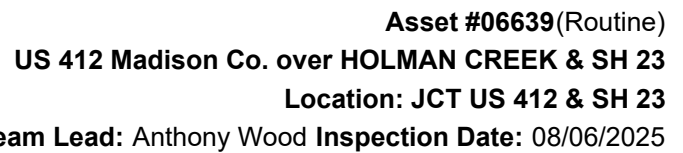
A-45 - Bats Present (0 - No)

A-108 - Load Rating Requested

A-119 - Scour Assessment Request (No - Scour Assessment not requested at this time.)

A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (8 - Insignificant scour.)

Overall, the scour condition is good with minor localized scour at bent 2.



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	14713	13887	814	12	0
1080	Delamination/Spall/Patched Area	SF	12	0	0	12	0
1120	Efflorescence/Rust Staining	SF	90	0	90	0	0
1130	Cracking (RC and Other)	SF	724	0	724	0	0
(12) Driving Surface: Spans 1 - 5: Sealed cracks. Spans 1 - 5: Minor cracking. 724SF CS2 Spans 1 & 3 - 5: Spalling where plowable delineators have been removed. 12SF CS3 Undersurface: Span 3, Bays 1 & 2: Minor active corrosion in SIP forms. Spans 1 - 5, Left & Right, Overhangs: Minor cracking. 90SF CS2							
107	Steel Open Girder/Beam	LF	3929	3925	4	0	0
1020	Connection	LF	4	0	4	0	0
(107) Span 2, Girder 7, Web: 2 loose bolts. 1LF CS2 Span 3, Girder 6, Web: Loose bolt. 1LF CS2 Span 4, Girder 3, Bottom Flange: Loose bolt. 1LF CS2 Span 4, Girder 8, Web: Loose bolt. 1LF CS2							
205	Reinforced Concrete Column	EA	15	15	0	0	0
215	Reinforced Concrete Abutment	LF	163	118	45	0	0
1130	Cracking (RC and Other)	LF	45	0	45	0	0
(215) Abutment 1 & 2, Top of Back Wall: Cracking. 45LF CS2							
234	Reinforced Concrete Pier Cap	LF	311	311	0	0	0
300	Strip Seal Expansion Joint	LF	163	65	98	0	0
2350	Debris Impaction	LF	98	0	98	0	0
(300) Abutment 2: Minor debris impaction. 98LF CS							
310	Elastomeric Bearing	EA	56	53	0	3	0
1000	Corrosion	EA	3	0	0	3	0
515	Steel Protective Coating	SF	112	47	34	25	6
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	SF	65	0	34	25	6
(310) Abutment 1, Girder 1: Active corrosion with flaking rust. 1EA CS3 Abutment 2, Girders 5 & 8: Active corrosion with flaking rust. 2EA CS3							
331	Reinforced Concrete Bridge Railing	LF	824	590	234	0	0
1130	Cracking (RC and Other)	LF	234	0	234	0	0
(331) Spans 1 - 5, Left & Right: Minor cracking. 234LF CS2							

Inspection Photos and Notes



Elevation.



Inventory.



Typical deck.



Typical undersurface.



Channel, Right.



Channel, Left.



Deck washing needed.



Typical transition rail.



Abutment 1 & 2: Typical bearings.



Typical intermediate bearings.



Typical channel protection.



Spans 1 - 5: Sealed cracks.



Spans 1 - 5: Minor cracking. 724SF CS2



Span 3, Bays 1 & 2: Minor active corrosion in SIP forms.



Spans 1 - 5, Left & Right, Overhangs: Minor cracking. 90SF CS2



Spans 1 & 3 - 5: Spalling where plowable delineators have been removed. 12SF CS3



Span 4, Girder 3, Flange: Loose bolt.



Span 4, Girder 3, Flange: Loose bolt.



Abutment 1 & 2, Top of Back Wall: Cracking. 45LF CS2



Abutment 2: Minor debris impaction. 98LF CS2



Spans 1 - 5, Left & Right: Minor cracking. 234LF CS2

Maintenance Needs

Date Reported: 08/06/2025

Priority: B - Pressing

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

Deficiency Description

Debris:

Bent 2: Large trees and brush restricting the channel.

Remarks



Bent 2: Large trees and brush in channel.



Bent 2: Large trees and brush in channel.

Maintenance Needs

Date Reported: 08/06/2025

Priority: C - Important

Status: Open

Type of Work: Approach Leveling/Maintenance

Component: Approach

Deficiency Description

Approach Roadway:

Approach 1 & 2, Left & Right Lanes: Settlement up to 4"D for 3'L.

Remarks



Approach 1 & 2: Up to 4" of settlement for 3'.

Maintenance Needs

Date Reported: 08/14/2019

Priority: D- Routine

Status: Monitor

Type of Work: (Inactive) 9 - None

Component:

Deficiency Description

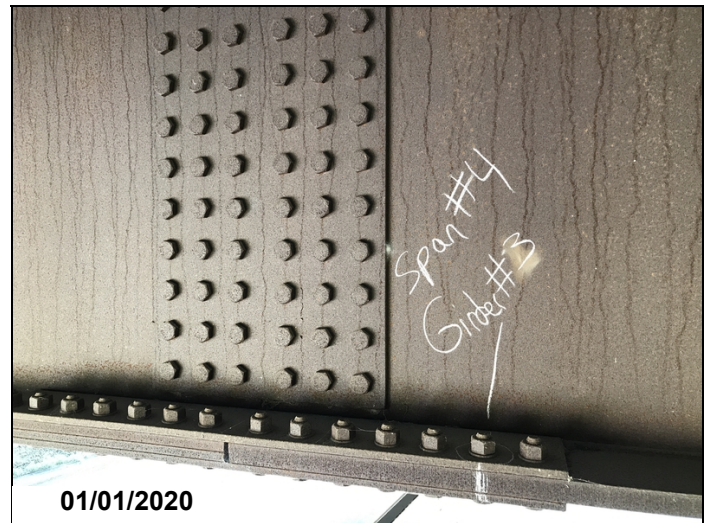
Loose Bolts in girder splice plates.

- Span #2 girder #7 has 2 loose bolts. In the web of splice connection.
- Span #3 girder #6 has a loose bolt in the web of splice connection.
- Span #4 girder #3 at loose bolt in the bottom flange of the splice.
- Span #4 girder #8 loose bolt in the web of the bolted splice connection.

Remarks



01/01/2020
-Span #3 girder #6 has a loose bolt in the web of splice connection.



01/01/2020
Span #4 girder #3 at loose bolt in the bottom flange of splice.



Span #2 girder #7 has 2 loose bolts. In the web of splice connection.



Span #4 girder #8 loose bolt in the web of the bolted splice connection.

Maintenance Needs

Date Reported: 08/07/2023

Priority: D- Routine

Type of Work:

Status: Repair Documented

Component: Miscellaneous

Deficiency Description

Log mile signs are not legible and need to be replaced.

Remarks

Madison Co.



Log mile signs in place and legible.



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	Yes
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	Yes
A-62 - Hydro and LMC Advised	No
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	No
A-65 - Clogged deck drains?	No
A-66 - Approach minor pothole/leveling needed	No

A-54 - Sealable Deck Cracks (Yes)

A-55 - Deck Washing Needed (Yes)



Deck washing needed.

A-56 - Joint Cleaning/Flushing Needed (Yes)

A-57 - Beam End and Bearing Painting 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 (Yes)



Asset #06639(Routine)

US 412 Madison Co. over HOLMAN CREEK & SH 23

Location: JCT US 412 & SH 23

Team Lead: Anthony Wood Inspection Date: 08/06/2025

A-62 - Hydro and LMC Advised (No)

A-63 - Missing/Incorrect Log Mile Signage (No)

A-64 - Vegetation Removal Requested (No)

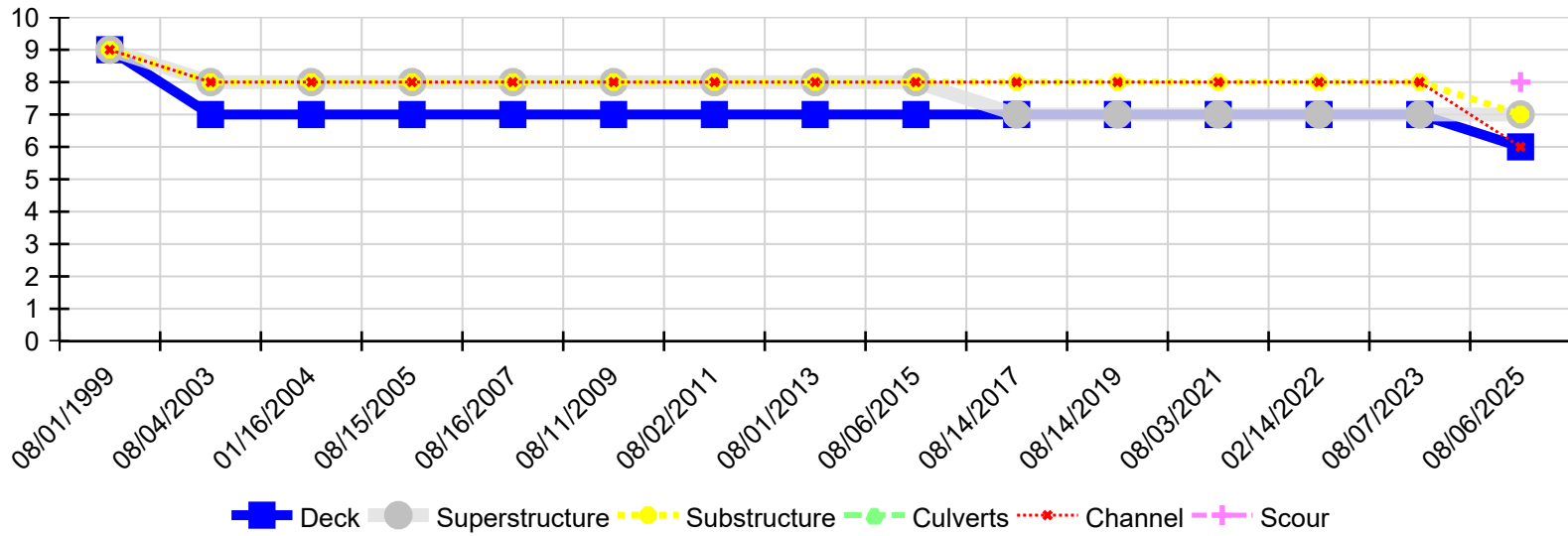
A-65 - Clogged deck drains? (No)

A-66 - Approach minor pothole/leveling needed (No)



Asset #06639(Routine)
US 412 Madison Co. over HOLMAN CREEK & SH 23
Location: JCT US 412 & SH 23
Team Lead: Anthony Wood Inspection Date: 08/06/2025

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
08/06/2025	6	7	7	N	6	8
08/07/2023	7	7	8	N	8	N
02/14/2022	7	7	8	N	8	N
08/03/2021	7	7	8	N	8	N
08/14/2019	7	7	8	N	8	N
08/14/2017	7	7	8	N	8	N
08/06/2015	7	8	8	N	8	N
08/01/2013	7	8	8	N	8	N
08/02/2011	7	8	8	N	8	N
08/11/2009	7	8	8	N	8	N
08/16/2007	7	8	8	N	8	N
08/15/2005	7	8	8	N	8	N
01/16/2004	7	8	8	N	8	N
08/04/2003	7	8	8	N	8	N
08/01/1999	9	9	9	N	9	N