

Bridge M1451 Inspection Report



Latitude:33.41456, Longitude:-93.06680

Route:79 Section:03 Log:3.18

Arnold Road ID:52x79x3xA, Arnold Log mile:3.183

District 07, 103 - Ouachita County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

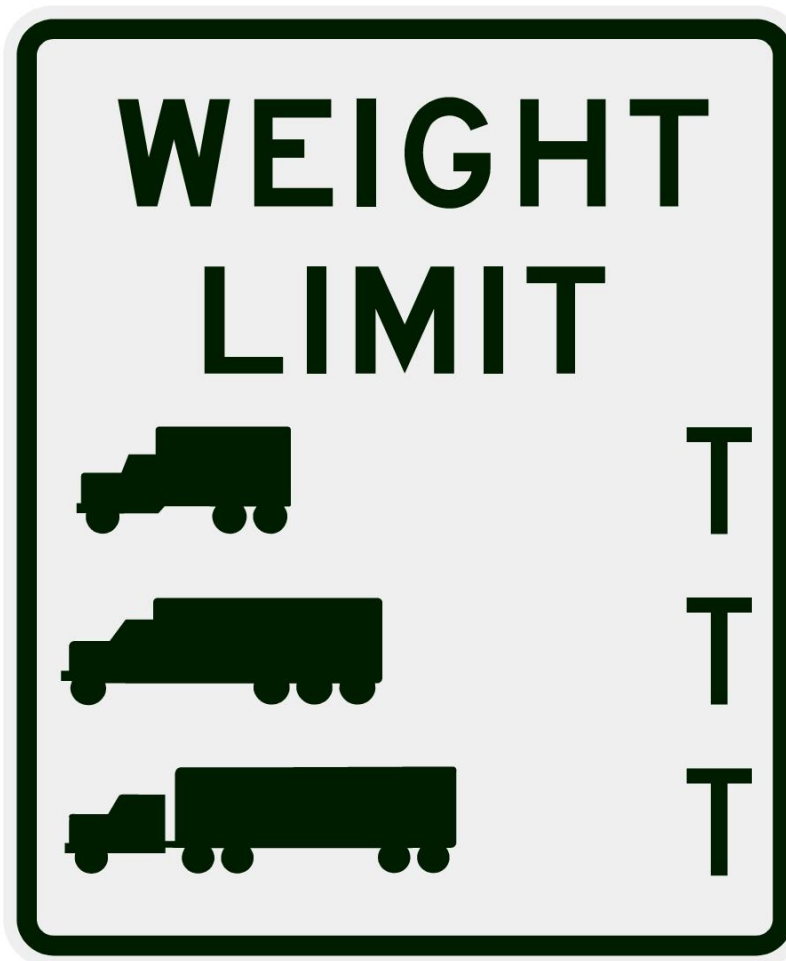
Bridge Posting Information

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

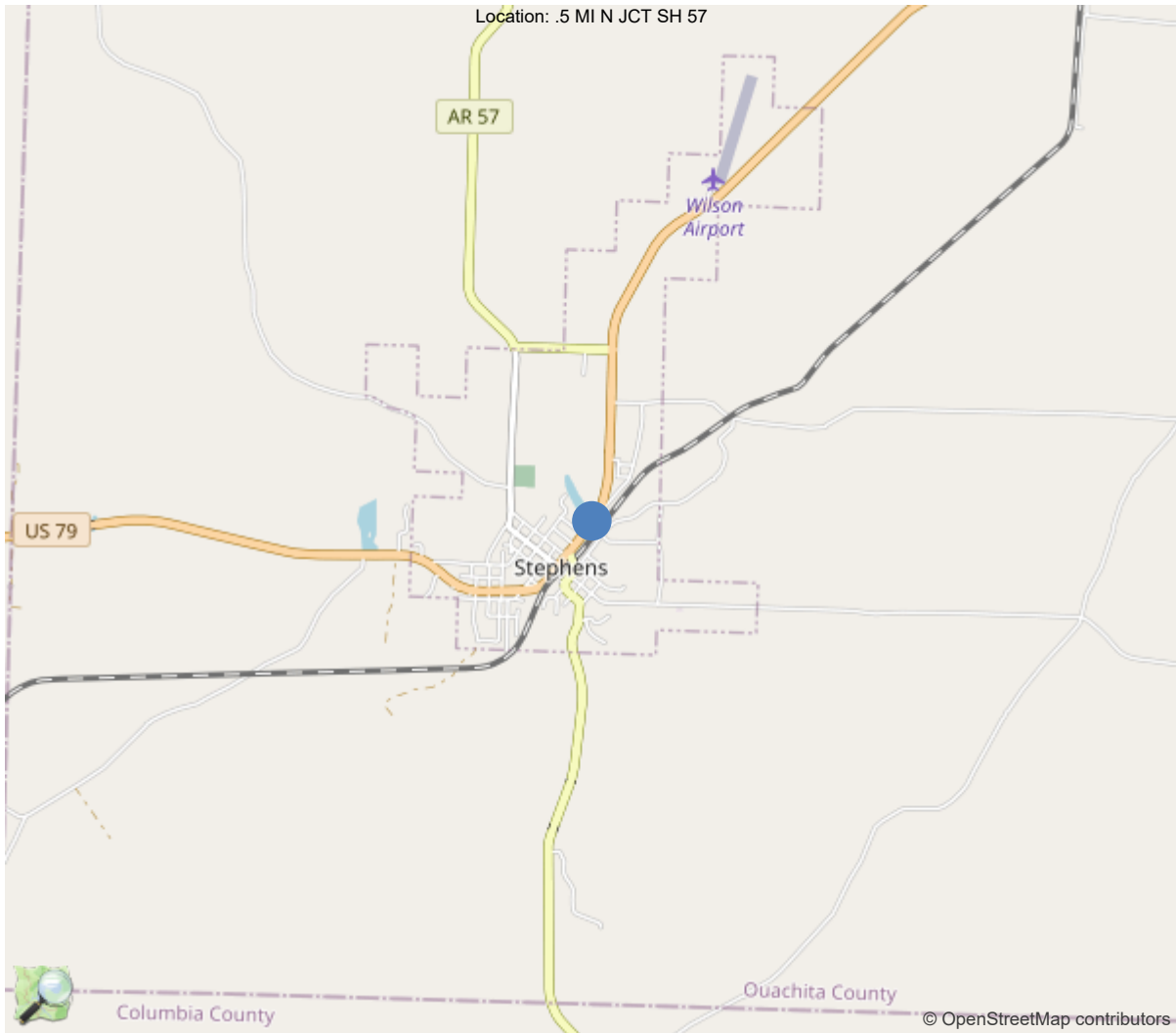
70 - Bridge Posting: 5 - Equal to or above legal loads

| Legal Load | Calculated Capacity | Beginning of Bridge Sign Current Value | End of Bridge Sign Current Value |
|------------------|---------------------|--|----------------------------------|
| Code 4 (22 Tons) | 33 | | |
| Code 9 (31 Tons) | 35 | | |
| Code 5 (40 Tons) | 55 | | |

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



33.41456, -93.06680



Asset #M1451(Routine)

US 79 S-3 LM 3.18 over DESARC BAYOU RELIEF

Location: .5 MI N JCT SH 57

Team Lead: John Parks Inspection Date: 07/10/2025

National Bridge Inventory Data Sheet

| IDENTIFICATION | |
|---|--|
| (1) State Names | 5 - Arkansas |
| (8) Structure Number | M1451 |
| (5) Inventory Route | 1 |
| (2) Highway Agency District | 07 - District 07 |
| (3) County Code | 103 - Ouachita County |
| (4) Place Code | 66860 |
| (6) Features Intersected | DESARC BAYOU RELIEF |
| (7) Facility Carried | US 79 S-3 LM 3.18 |
| (9) Location | .5 MI N JCT SH 57 |
| (11) Mile Point | 3.18 mi |
| (12) Base Highway Network | Yes |
| (13) LRS Inventory Rte & Subrte | 0000079030 |
| (16) Latitude | 33.41456 |
| (17) Longitude | -93.0668 |
| (98) Border Bridge State Code | |
| (99) Border Bridge Structure No. | |
| STRUCTURE TYPE AND MATERIAL | |
| (43) Main Structure Type | 119 |
| Material | 1 - Concrete |
| Type | 19 - Culvert |
| (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 | N - Not applicable |
| (108) Wearing Surface/Protective System | |
| Type of Wearing Surface | N - Not applicable (applies only to stru |
| Type of Membrane | N - Not applicable (applies only to stru |
| Type of Deck Protection | N - Not applicable (applies only to stru |
| AGE AND SERVICE | |
| (27) Year Built | 1931 |
| (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 | 2700 |
| (30) Year of ADT | 2018 |
| (109) Truck ADT | 1 % |
| (19) Bypass, Detour Length | 8 mi |
| GEOMETRIC DATA | |
| (48) Length of Maximum Span | 10 ft |
| (49) Structure Length | 22 ft |
| (50) Curb or Sidewalk Width | |
| Left | 0 ft |
| Right | 0 ft |
| (51) Bridge Roadway Width Curb to Curb | 22 ft |
| (52) Deck Width Out to Out | 35 ft |
| (32) Approach Roadway Width (W/Shoulders) | 36.1 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 | 28 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 | 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 | N |
| (59) Superstructure | N |
| (60) Substructure | N |
| (61) Channel & Channel Protection | 6 |
| (62) Culverts | 7 |
| 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 | 46 |
| (65) Inventory Rating Method | 1 - Load Factor(LF) |
| (66) Inventory Rating | |
| Type | |
| Rating | 28 |
| (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 | 5 |
| (69) Clearances, Vertical/Horizontal | N |
| (71) Waterway Adequacy | 6 |
| (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 | 8 - 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 | 3323 |
| (115) Year of Future ADT | 2028 |

| INSPECTIONS * | | | |
|--|------|-------------|------------|
| (90) Inspection Date | | | 07/10/2025 |
| (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. | | | |

Team Lead: John Parks, Inspection Date: 07/10/2025

Specifications for National Bridge Inventory Sheets

| IDENTIFICATION | |
|-----------------------------|-------|
| B.ID.01 Bridge Number | M1451 |
| B.ID.02 Bridge Name | |
| B.ID.03 Previous Bridge No. | |
| B.W.01 Year Built | 1931 |

| LOCATION | |
|--|-----------------------|
| B.L.01 State Code | 5 - Arkansas |
| B.L.02 County Code | 103 - Ouachita County |
| B.L.03 Place Code | 66860 - Stephens |
| B.L.04 Highway Agency District | 07 - District 07 |
| B.L.05 Latitude | 33.41456 |
| B.L.06 Longitude | -93.0668 |
| B.L.07 Border Bridge Number | |
| B.L.08 Border Bridge State or Country Code | |
| B.L.09 Border Bridge Insp. Resp. | |
| B.L.10 Border Bridge Designated Lead State | |
| B.L.11 Bridge Location | .5 MI N JCT SH 57 |
| B.L.12 Metropolitan Planning Organization | |

| CLASSIFICATION | |
|--|-------------------------------------|
| B.CL.01 Owner | S01 - State transportation departme |
| B.CL.02 Maint. Responsibility | S01 - State transportation departme |
| B.CL.03 Federal or Tribal Land Access | N - Not Applicable |
| B.CL.04 Historic Significance | N - Bridge is not eligible for the |
| B.CL.05 Toll | N - Bridge does not carry a toll ro |
| B.CL.06 Emergency Evacuation Designation | |

| ROADSIDE HARDWARE | |
|------------------------------------|--|
| B.RH.01A Bridge Railing Type | |
| B.RH.01B Bridge Railing Year (YY) | |
| B.RH.01C Bridge Railing Test Level | |
| B.RH.02A Transition Type | |
| B.RH.02B Transition Year (YY) | |
| B.RH.02C Transition Test Level | |

| BRIDGE GEOMETRY | |
|-------------------------------------|------|
| B.G.01 NBIS Bridge Length | 21 |
| B.G.02 Total Bridge Length | 22 |
| B.G.03 Max Span Length | 9.8 |
| B.G.04 Min Span Length | 10 |
| B.G.05 Bridge Width Out-to-Out | |
| B.G.06 Bridge Width Curb-to-Curb | 0 |
| B.G.07 Left Curb or Sidewalk Width | 0 |
| B.G.08 Right Curb or Sidewalk Width | 0 |
| B.G.09 Approach Roadway Width | 36.1 |

| | |
|-----------------------------|---------------------------|
| B.G.10 Bridge Median | 0 - No median |
| B.G.11 Skew | 0 |
| B.G.12 Curved Bridge | N - Not curved |
| B.G.13 Max Bridge Height | 4 |
| B.G.14 Sidehill Bridge | N - Not a sidehill bridge |
| B.G.15 Irregular Deck Area | |
| B.G.16 Calculated Deck Area | |

| LOADS AND LOAD RATING | |
|--|--------------------------|
| B.LR.01 Design Load | H15 - H-15 |
| B.LR.02 Design Method | |
| B.LR.03 Load Rating Date | |
| B.LR.04 Load Rating Method | LFR - Load Factor Rating |
| B.LR.05 Inventory Load Rating Factor | 0.78 |
| B.LR.06 Operating Load Rating Factor | 1.28 |
| B.LR.07 Controlling Legal Load Rating Factor | |
| B.LR.08 Routine Permit Loads | |

| INSPECTION REQUIREMENTS | |
|----------------------------------|-------------------------------------|
| B.IR.01 NSTM Inspection Required | N - NSTM inspection not required. |
| B.IR.02 Fatigue Details | N - No E/E' details |
| B.IR.03 UW Inspection Required | N - Underwater inspection not requi |
| B.IR.04 Complex Feature | N - Bridge does not have complex fe |

| COMPONENT CONDITION RATINGS | |
|---|--------------------------------|
| B.C.01 Deck Condition Rating | N - NOT APPLICABLE - Component |
| B.C.02 Superstructure Condition | N - NOT APPLICABLE - Component |
| B.C.03 Substructure Condition | N - NOT APPLICABLE - Component |
| B.C.04 Culvert Condition | 7 - GOOD - Some minor defects. |
| B.C.05 Bridge Railing Condition | N - NOT APPLICABLE - Component |
| B.C.06 Bridge Railing Transitions Condition | N - NOT APPLICABLE - Component |
| B.C.07 Bridge Bearings Cond. | N - NOT APPLICABLE - Component |
| B.C.08 Bridge Joints Condition | N - NOT APPLICABLE - Bridge do |
| B.C.09 Channel Condition Rating | 6 - SATISFACTORY - Widespread |
| B.C.10 Channel Protection Condition | N - NOT APPLICABLE - Bridge do |
| B.C.11 Scour Condition Rating | 7 - Some minor scour. |
| B.C.12 Bridge Condition Classification | G - Good |
| B.C.13 Lowest Condition Rating | 7 - GOOD - Some minor defects. |
| B.C.14 NSTM Insp. Condition | N - NOT APPLICABLE - Component |
| B.C.15 UW Inspection Condition | |

| APPRAISAL | |
|------------------------------------|-------------------------------------|
| B.AP.01 Approach Roadway Alignment | G - Good |
| B.AP.02 Overtopping Likelihood | 3 - Low - once every 26 to 50 years |
| B.AP.03 Scour Vulnerability | 0 - Scour appraisal has not been co |
| B.AP.04 Scour Plan of Action | 0 - A scour POA is not required. |
| B.AP.05 Seismic Vulnerability | 0 - Seismic evaluation not complete |

Team Lead: John Parks, Inspection Date: 07/10/2025

| SPAN SETS | | | |
|--------------------------------|--------------------------------|--|------------------------------|
| C1 | | | |
| B.SP.02 # of Spans | 2 | B.SP.08 Deck Interaction | IM - Integral or monolithic |
| B.SP.03 # of Beam Lines | 1 | B.SP.09 Deck Material and Type | 0 - None |
| B.SP.04 Span Material | C01 - Reinforced concrete - ca | B.SP.10 Wearing Surface | E01 - Earth - gravel or soil |
| B.SP.05 Span Continuity | 7 - Buried | B.SP.11 Deck Protective System | 0 - None |
| B.SP.06 Span Type | F02 - Frame - four-sided | B.SP.12 Deck Reinforcing Protective System | 0 - None |
| B.SP.07 Span Protective System | 0 - None | B.SP.13 Deck Stay-In-Place Forms | 0 - None |

| SUBSTRUCTURE SETS | | | |
|-----------------------------------|--------------------------------|--|-----------------------------|
| A1 | | | |
| B.SB.02 No. of Substructure Units | 2 | B.SB.05 Substructure Protective System | 0 - None |
| B.SB.03 Substructure Material | C01 - Reinforced concrete - ca | B.SB.06 Foundation Type | F01 - Footing - not on rock |
| B.SB.04 Substructure Type | A01 - Abutment - cantilever/wa | B.SB.07 Foundation Protective System | 0 - None |
| P1 | | | |
| B.SB.02 No. of Substructure Units | 1 | B.SB.05 Substructure Protective System | 0 - None |
| B.SB.03 Substructure Material | C01 - Reinforced concrete - ca | B.SB.06 Foundation Type | F01 - Footing - not on rock |
| B.SB.04 Substructure Type | P01 - Pier - wall | B.SB.07 Foundation Protective System | 0 - None |

| HIGHWAY FEATURES | | | |
|---|--------------------------------|--|------|
| H1 | | | |
| B.F.02 Feature Location | C - Carried on bridge | B.H.09 Annual ADT | 2700 |
| B.F.03 Feature Name | US 79 S-3 LM 3.18 | B.H.10 Annual ADTT | 27 |
| B.H.01 Functional Classification | 3 - Principal Arterial - Other | B.H.11 Year of Annual ADT | 2018 |
| B.H.02 Urban Code | 99999 | B.H.12 Highway Max Usable Vertical Clearance | 99.9 |
| B.H.03 NHS Designation | Y - NHS | B.H.13 Highway Min Vertical Clearance | 99.9 |
| B.H.04 National Highway Freight Network | 1-T - TEMP - NHFN - 1 or 2 or | B.H.14 Highway Min Horizontal Clearance, Left | |
| B.H.05 STRAHNET Designation | N - Not a STRAHNET route | B.H.15 Highway Min Horizontal Clearance, Right | |
| B.H.06 LRS Route ID | 79030 | B.H.16 Highway Max Usable Surface Width | 27.8 |
| B.H.07 LRS Mile Point | 3.18 | B.H.17 Bypass Detour Length | 8 |
| B.H.08 Lanes On Highway | 2 | B.H.18 Crossing Bridge Number | |

| HIGHWAY ROUTES | | | | | |
|----------------|---------------------------|----------------------|---|--------------------|----------------------|
| Highway Parent | B.RT.01 Route Designation | B.RT.02 Route Number | B.RT.03 Route Direction | B.RT.04 Route Type | B.RT.05 Service Type |
| H1 | R01 | 79 | 2-T - TEMP - Two-way traffic - NS or EW | 2 - U.S. route | 1 - Mainline |



Team Lead: John Parks, Inspection Date: 07/10/2025

WATERWAY FEATURES

| | | | |
|--|--------------------------|---|--|
| W1 | | | |
| B.F.02 Feature Location | B - Below bridge | B.N.03 Movable Bridge Max Navigation Vertical Clearance | |
| B.F.03 Feature Name | DESARC BAYOU RELIEF | B.N.04 Navigation Channel Width | |
| B.N.01 Navigable Waterway | N - Not navigable waters | B.N.05 Navigation Channel Min Horizontal Clearance | |
| B.N.02 Navigation Min Vertical Clearance | | B.N.06 Substructure Navigation Protection | |

POSTING STATUS DATA

| | |
|-----------------------------|------------------------------------|
| B.PS.01 Load Posting Status | B.PS.02 Posting Status Change Date |
| PO - Permanent - Open | |

LOAD EVALUATION AND POSTING

| | | | |
|----------------------------------|----------------------------------|----------------------|-----------------------|
| B.EP.01 Legal Load Configuration | B.EP.02 Legal Load Rating Factor | B.EP.03 Posting Type | B.EP.04 Posting Value |
|----------------------------------|----------------------------------|----------------------|-----------------------|



Inspection Notes

General Observation

This bridge is a R.C. Box Culvert. Waders are used for access to inspect the underside of all barrels. Inspection tools used are probing rods, tape measures, levels, and flashlights.

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.) Channel is rated 6 due to pipes across stream causing sediment to build up in the culvert.

62 - Culverts (7 - Shrinkage cracks, light scaling and insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred near curtain walls, wingwalls or pipes. Metal culverts have a smooth symmetrical curvature with superficial corrosion and no pitting.) Culvert rated 7 due to being in good condition with minor abrasion.

A-63 - Missing/Incorrect Log Mile Signage (Y)
Log mile sign and flare board missing north end.

A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (7 - Some minor scour.)
Scour condition is rated 7 due to minor scour at the culvert but in good condition. The streambed is sandy material.

Inspection Photos and Notes



Elevation



Channel left side upstream



Channel right side downstream



Typical culvert



Approach

Maintenance Needs

Date Reported: 07/24/2018

Priority: D- Routine

Status: Monitor

Type of Work: Channel Work/Drift Removal

Component: Channel

Deficiency Description

Barrel 1, sediment built up to 1' deep in the bottom of the culvert.

Barrel 2, sediment built up to 1'-6" deep in the bottom of the culvert.

Remarks

Barrel 2, upto 2' of sediment built up.



07/10/2025
Barrel 2, sediment built up to 1'-6" deep in the bottom of the culvert.



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 | Yes |
| A-64 - Vegetation Removal Requested | No |
| A-65 - Clogged deck drains? | |
| A-66 - Approach minor pothole/leveling needed | |

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

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



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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 (Yes)

Log mile sign and flare board missing north end.

A-64 - Vegetation Removal Requested (No)

A-65 - Clogged deck drains?



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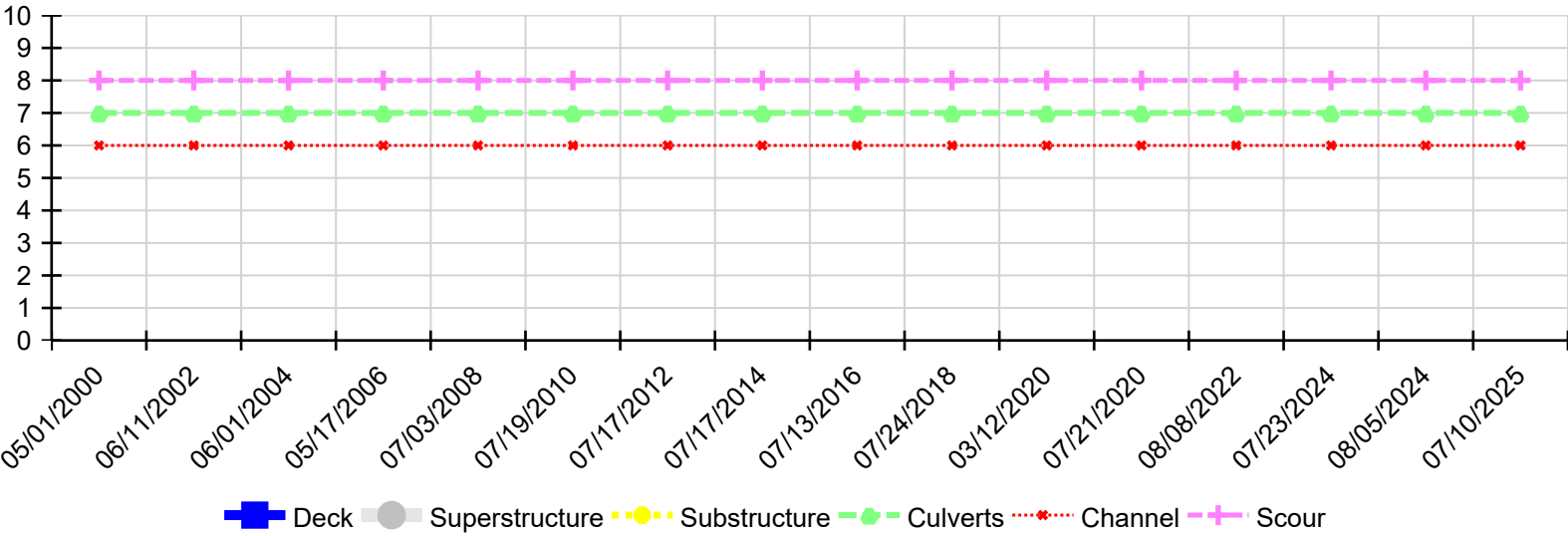
Location: .5 MI N JCT SH 57

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A-66 - Approach minor pothole/leveling needed



Condition History



| Inspection Date | Deck | Superstructure | Substructure | Culverts | Channel | Scour |
|-----------------|------|----------------|--------------|----------|---------|-------|
| 07/10/2025 | N | N | N | 7 | 6 | 8 |
| 08/05/2024 | N | N | N | 7 | 6 | 8 |
| 07/23/2024 | N | N | N | 7 | 6 | 8 |
| 08/08/2022 | N | N | N | 7 | 6 | 8 |
| 07/21/2020 | N | N | N | 7 | 6 | 8 |
| 03/12/2020 | N | N | N | 7 | 6 | 8 |
| 07/24/2018 | N | N | N | 7 | 6 | 8 |
| 07/13/2016 | N | N | N | 7 | 6 | 8 |
| 07/17/2014 | N | N | N | 7 | 6 | 8 |
| 07/17/2012 | N | N | N | 7 | 6 | 8 |
| 07/19/2010 | N | N | N | 7 | 6 | 8 |
| 07/03/2008 | N | N | N | 7 | 6 | 8 |
| 05/17/2006 | N | N | N | 7 | 6 | 8 |
| 06/01/2004 | N | N | N | 7 | 6 | 8 |
| 06/11/2002 | N | N | N | 7 | 6 | 8 |
| 05/01/2000 | N | N | N | 7 | 6 | 8 |