

Bridge 03385 Inspection Report



Latitude:34.30325, Longitude:-91.31328

Route:1 Section:05 Log:1

Arnold Road ID:1x1x5xA, Arnold Log mile:0.993

District 02, 1 - Arkansas County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

Bridge Posting Information

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

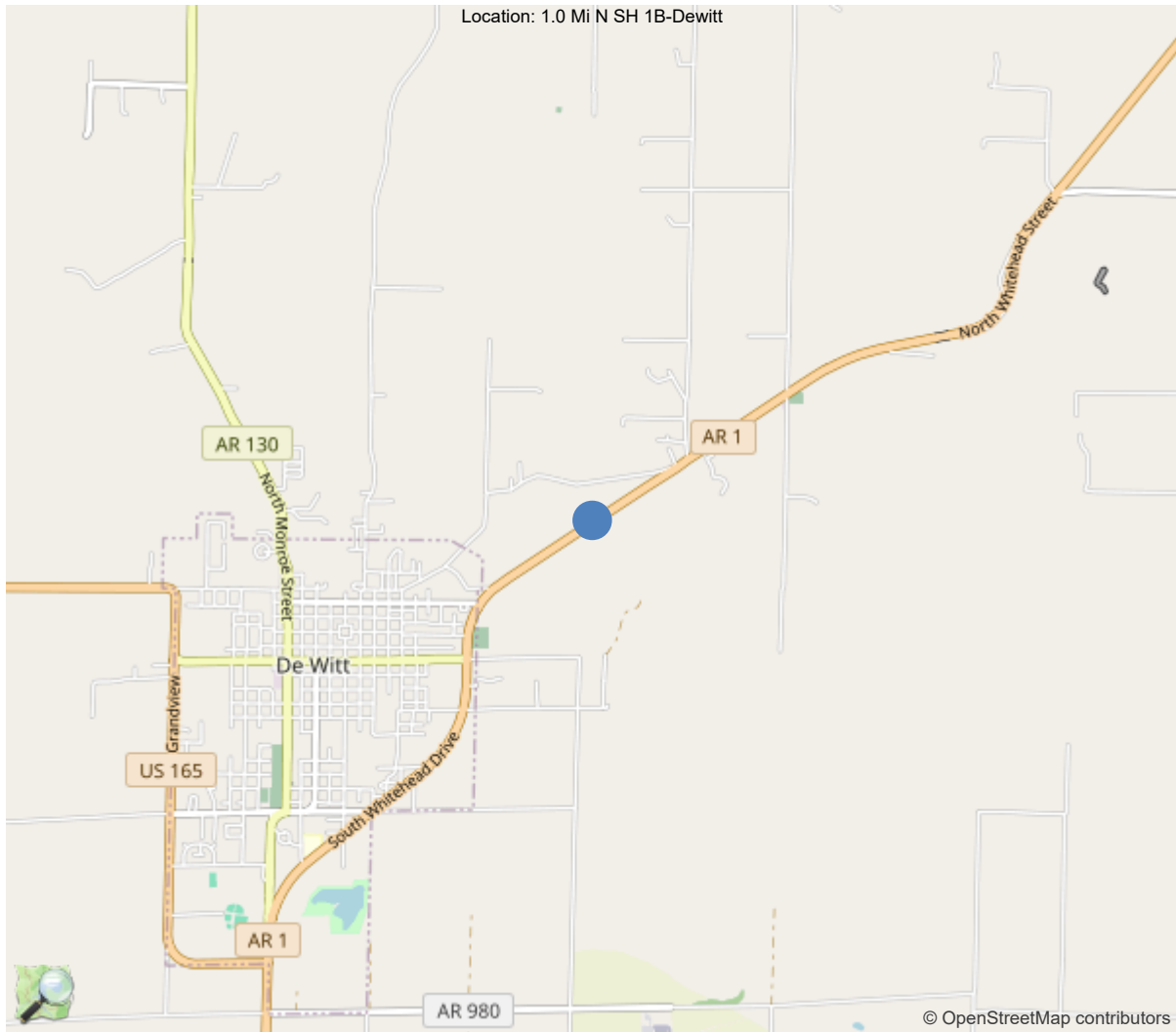
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	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



34.30325, -91.31328

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03385
(5) Inventory Route	1
(2) Highway Agency District	02 - District 02
(3) County Code	1 - Arkansas County
(4) Place Code	0
(6) Features Intersected	Little Lagrue Bayou
(7) Facility Carried	SH 1-05 LM 1.00
(9) Location	1.0 Mi N SH 1B-Dewitt
(11) Mile Point	1 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000001050
(16) Latitude	34.30325
(17) Longitude	-91.31328
(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	7
(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	1962
(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	2000
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	30 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	210 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	28 ft
(52) Deck Width Out to Out	33.5 ft
(32) Approach Roadway Width (W/Shoulders)	34.1 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	27.9 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	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	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	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	6
(59) Superstructure	6
(60) Substructure	6
(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	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	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	1946
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			04/18/2023
(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.			

Team Lead: Greg Loomis, Inspection Date: 04/18/2023

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	03385
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	1 - Arkansas County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	02 - District 02
B.L.05 Latitude	34.30325
B.L.06 Longitude	-91.31328
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	
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	
B.CL.02 Maint. Responsibility	
B.CL.03 Federal or Tribal Land Access	
B.CL.04 Historic Significance	
B.CL.05 Toll	
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	
B.G.02 Total Bridge Length	
B.G.03 Max Span Length	
B.G.04 Min Span Length	
B.G.05 Bridge Width Out-to-Out	
B.G.06 Bridge Width Curb-to-Curb	
B.G.07 Left Curb or Sidewalk Width	
B.G.08 Right Curb or Sidewalk Width	
B.G.09 Approach Roadway Width	

B.G.10 Bridge Median	
B.G.11 Skew	
B.G.12 Curved Bridge	
B.G.13 Max Bridge Height	
B.G.14 Sidehill Bridge	
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	

LOADS AND LOAD RATING	
B.LR.01 Design Load	
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	
B.LR.05 Inventory Load Rating Factor	
B.LR.06 Operating Load Rating Factor	
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	
B.IR.02 Fatigue Details	
B.IR.03 UW Inspection Required	
B.IR.04 Complex Feature	

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	
B.C.02 Superstructure Condition	
B.C.03 Substructure Condition	
B.C.04 Culvert Condition	
B.C.05 Bridge Railing Condition	
B.C.06 Bridge Railing Transitions Condition	
B.C.07 Bridge Bearings Cond.	
B.C.08 Bridge Joints Condition	
B.C.09 Channel Condition Rating	
B.C.10 Channel Protection Condition	
B.C.11 Scour Condition Rating	
B.C.12 Bridge Condition Classification	
B.C.13 Lowest Condition Rating	
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	
B.AP.02 Overtopping Likelihood	
B.AP.03 Scour Vulnerability	
B.AP.04 Scour Plan of Action	
B.AP.05 Seismic Vulnerability	



Team Lead: Greg Loomis, Inspection Date: 04/18/2023

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

POSTING STATUS DATA	
B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date

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



Asset #03385(Routine)

SH 1-05 LM 1.00 over Little Lagrue Bayou

Location: 1.0 Mi N SH 1B-Dewitt

Team Lead: Greg Loomis **Inspection Date:** 04/18/2023

Inspection Notes

General Observation

Bridge is logged from south to north (southwest to northeast).

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	6300	6030	174	96	0
1080	Delamination/Spall/Patched Area	SF	140	0	100	40	0
1090	Exposed Rebar	SF	56	0	0	56	0
1120	Efflorescence/Rust Staining	SF	50	0	50	0	0
1130	Cracking (RC and Other)	SF	24	0	24	0	0
510	Wearing Surfaces	SF	5040	4452	588	0	0
3210	Delam/Spall/Patched Area/Pothole	SF	588	0	588	0	0
(38) Deck (sonovoids): 30' wide (1'-9" STEP-UP each side) x 210' long = 6300 sqft. Wearing surface (thin asphalt/chip seal): 24' wide x 210' long = 5040 sqft. Wearing surface: Scattered small- to moderate-sized spalls (potholes) with a few patches, especially on Span 4 (10%). Wearing surface has lost adhesion in numerous locations. Deck - various locations: Some scaling, spalling, and delaminations, especially outside asphalt wearing surface on Spans 5 & 7 left. Spalls go through asphalt wearing surface and into concrete deck. Various locations have been patched with asphalt mix. Sides of slabs: Some cracking and minor spalling above caps at bents (4 sqft/ bent). Soffit – Span 1 left: Minor- to moderate-sized transverse cracking with rust-staining - 50 sqft. Spans 2-6: Delaminations and spalls on outside edges of deck around drains – left and right sides, worse on right side. Some minor rust and section loss to reinforcing steel at these locations. (9 sqft/location with Spans 3-6 right in State 3)(3 sq/ft at Bent 6 left in State 3). Various soffit drains and points of contact at deck and caps also have small areas of exposed rebar.							
215	Reinforced Concrete Abutment	LF	76	73	3	0	0
6000	Scour	LF	3	0	3	0	0
(215) Abutments: 30'-6" = 31' each (with 3'-6" wings each corner) / Bents 1 & 8. End-slope - Bent 1: Some erosion near center-line with exposure of bottom of abutment cap - 3' CS2 scour.							
227	Reinforced Concrete Pile	EA	30	20	10	0	0
1190	Abrasion/Wear (PSC/RC)	EA	10	0	10	0	0
(227) Piling: 5 per bent \ Bents 2-7. Bents 4 & 5: Some minor abrasive wear - CS2 abrasive wear x 10.							
234	Reinforced Concrete Pier Cap	LF	186	129	40	17	0
1080	Delamination/Spall/Patched Area	LF	38	0	30	8	0
1090	Exposed Rebar	LF	19	0	10	9	0
(234) Caps: 30'-6" = 31" each / Bents 2-7. All bents - various locations: Some small, shallow delaminations and spalls with some small amounts of steel exposed (10% exposed rebar, 20% delamination/spall).							
301	Pourable Joint Seal	LF	168	0	40	128	0

Location: 1.0 Mi N SH 1B-Dewitt

Team Lead: Greg Loomis **Inspection Date:** 04/18/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2320	Seal Adhesion	LF	28	0	0	28	0
2350	Debris Impaction	LF	140	0	40	100	0
(301) Joints: 28' each / Bents 2-7. Bents 2-7: Poured joint material has deteriorated and has lost adhesion and is allowing stormwater to leak through - joints filled with dirt and debris.							
330	Metal Bridge Railing	LF	420	420	0	0	0
515	Steel Protective Coating	SF	1050	1050	0	0	0
(330) Railing: 210' each side. Coating 2.5 sqft/lf of rail Concrete curbs topped with metal rail on concrete posts.							

Inspection Photos and Notes



Right side view



Roadway view



Deck - Spans 1-3: Typical



Deck - Spans 4-6: Typical



Soffit - Span 5: Typical

Maintenance Needs

Date Reported: 03/31/2015

Priority: C - Important

Type of Work: Deck Repair

Status: Open

Component: Deck

Deficiency Description

Deck - various locations: Some scaling, spalling, and delaminations, especially outside asphalt wearing surface on Spans 5 & 7 left.

Spalls go through asphalt wearing surface and into concrete deck.

Various locations have been patched with asphalt mix.

04-18-2023 GGL-PRD: Priority changed from "D" to "C".

Remarks



Deck - Span 1 left @ 1/2-3/4 span: Scaling



Gutterline - Span 7 left



01/01/2020

Deck @ Bent 2: Joint damage and patch



01/01/2020

Deck - Span 5 left: Patches

Maintenance Needs

Date Reported: 04/18/2023

Priority: C - Important

Status: Open

Type of Work: Approach Leveling/Maintenance

Component: Approach

Deficiency Description

Approach roadway - Bents 1 & 8: Significant cracking/deterioration/spalling of asphalt wearing surface.

Remarks



Approach roadway - Bent 8: Deterioration/cracking

Maintenance Needs

Date Reported: 03/31/2015

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

Deficiency Description

End-slope - Span 1: Some minor erosion along centerline of slope, beginning at abutment cap.
04-18-2023 GGL-PRD: Priority changed from "G" to "D".

Remarks

No action at this time. Continue to monitor and advise if condition worsens.



Endslope - Span 1: Minor erosion



Endslope - Span 1

Maintenance Needs

Date Reported: 03/31/2015

Priority: D- Routine

Type of Work: Joint Repair

Status: Assigned

Component: Deck

Deficiency Description

Joints - Bents 2-7: Poured joint material has deteriorated and has lost adhesion and is allowing stormwater to leak through
- joints filled with dirt and debris.

Remarks



Joint - Bent 3



Deck @ Bent 2: Joint damage and patch

Maintenance Needs

Date Reported: 03/27/2019

Priority: D- Routine

Type of Work: Superstructure Repair

Status: Monitor

Component: Superstructure

Deficiency Description

Caps:
Bents 2-7 - various locations: Some small, shallow delaminations and spalls with some small amounts of steel exposed.

Remarks



Bent 3 cap back has spall with exposed rebar.



Bent 4 cap ahead right has spall with exposed rebar.



Bent 2 left side of cap has large delam. Common bent 3 left.

Maintenance Needs

Date Reported: 03/27/2019

Priority: D- Routine

Type of Work: Deck Repair

Status: Monitor

Component: Deck

Deficiency Description

Soffit – Spans 2-6: Delaminations and spalls on outside edges of deck around drains – left and right sides, worse on right side. Some rust and section loss to reinforcing steel at these locations.

Remarks

Repair as you can fit into your schedule



Span 2 left drain opening has spall with exposed rebar.



Soffit - Span 6 right: Rebar exposed



Span 5 right at drain opening has spall with exposed rebar. Common on span s 2,3,4 & 6.



Soffit - Span 3-6



Soffit - Span 2 left: Rebar exposed

Maintenance Needs

Date Reported: 04/18/2023

Priority: D- Routine

Status: Open

Type of Work: Approach Leveling/Maintenance

Component: Approach

Deficiency Description

Approach gutter-lines - Bents 1 & 8: Significant build-up of dirt and other debris with grass growing up.
Gutter-lines - left & right side: Build-up of dirt, sand, and other debris.
Debris build-up is restricting stormwater from flowing off bridge as intended.

Remarks

Gutterline build-up



Approach gutter-line - Bent 8 left: Debris build-up



Gutter-line - right side: Debris build-up



Asset #03385(Routine)

SH 1-05 LM 1.00 over Little Lagrue Bayou

Location: 1.0 Mi N SH 1B-Dewitt

Team Lead: Greg Loomis Inspection Date: 04/18/2023

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	Yes
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	
A-62 - Hydro and LMC Advised	Yes
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed (Yes)

A-56 - Joint Cleaning/Flushing Needed



Asset #03385(Routine)

SH 1-05 LM 1.00 over Little Lagrue Bayou

Location: 1.0 Mi N SH 1B-Dewitt

Team Lead: Greg Loomis Inspection Date: 04/18/2023

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

A-62 - Hydro and LMC Advised (Yes)

A-63 - Missing/Incorrect Log Mile Signage

A-64 - Vegetation Removal Requested

A-65 - Clogged deck drains?



Asset #03385(Routine)

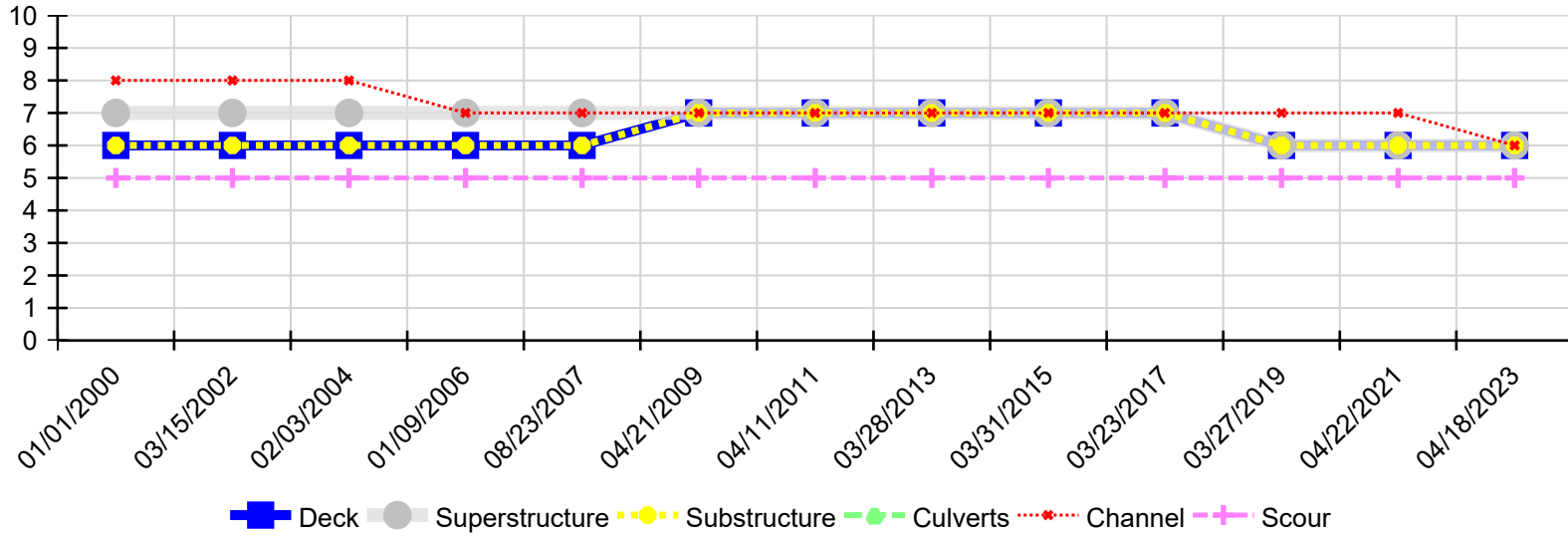
SH 1-05 LM 1.00 over Little Lagrue Bayou

Location: 1.0 Mi N SH 1B-Dewitt

Team Lead: Greg Loomis Inspection Date: 04/18/2023

A-66 - Approach minor pothole/leveling needed

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
04/18/2023	6	6	6	N	6	5
04/22/2021	6	6	6	N	7	5
03/27/2019	6	6	6	N	7	5
03/23/2017	7	7	7	N	7	5
03/31/2015	7	7	7	N	7	5
03/28/2013	7	7	7	N	7	5
04/11/2011	7	7	7	N	7	5
04/21/2009	7	7	7	N	7	5
08/23/2007	6	7	6	N	7	5
01/09/2006	6	7	6	N	7	5
02/03/2004	6	7	6	N	8	5
03/15/2002	6	7	6	N	8	5
01/01/2000	6	7	6	N	8	5