

Bridge 03932 Inspection Report



Latitude:33.42605, Longitude:-91.84960

Route:425 Section:03 Log:2.09

Arnold Road ID:22x425x3xA, Arnold Log mile:2.093

District 02, 43 - Drew County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

Bridge Posting Information

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

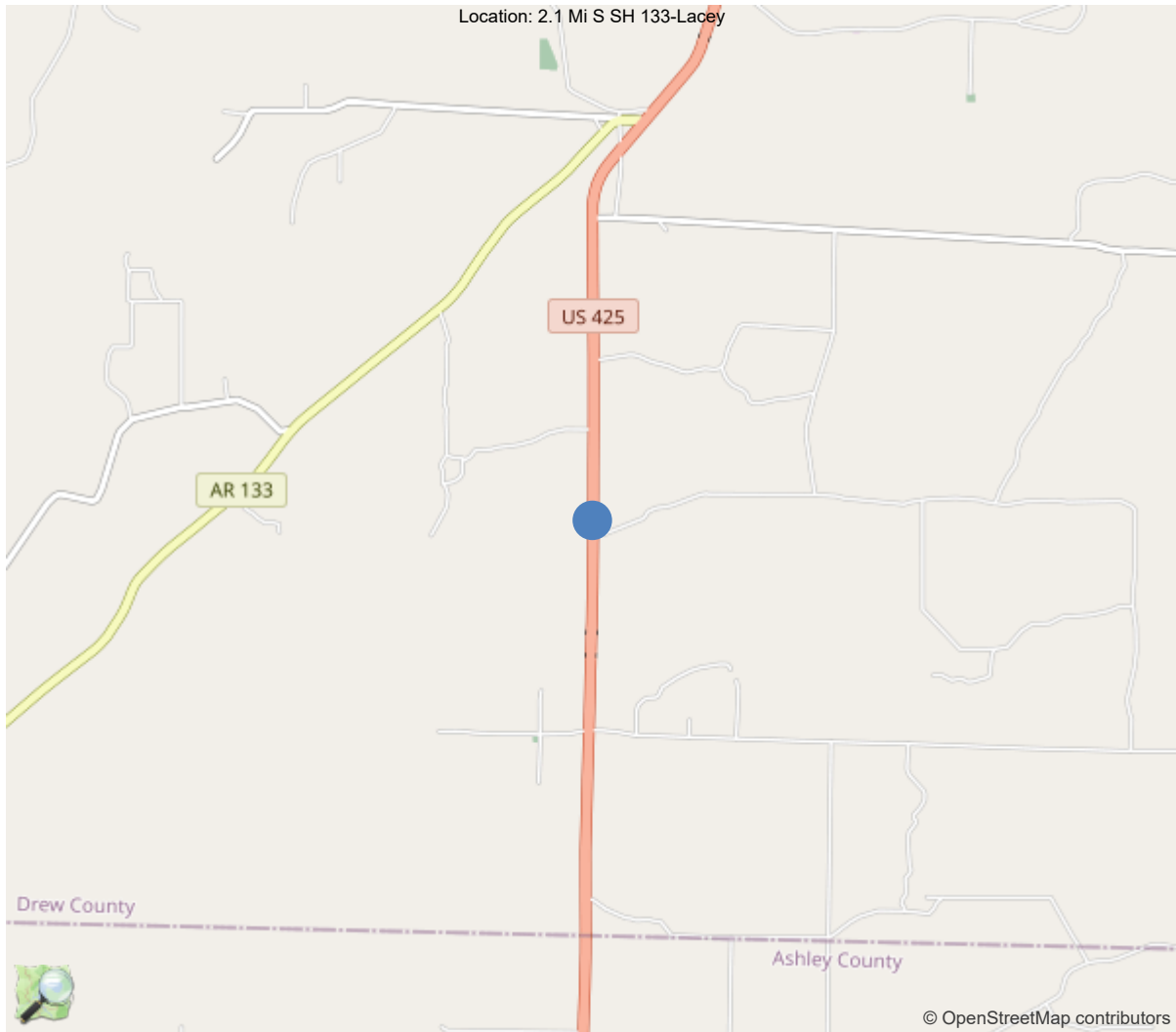
70 - Bridge Posting: 5 - Equal to or above legal loads

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)	47		
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



33.42605, -91.84960

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	03932
(5) Inventory Route	1
(2) Highway Agency District	02 - District 02
(3) County Code	43 - Drew County
(4) Place Code	0
(6) Features Intersected	Panther Creek
(7) Facility Carried	US 425-03 LM 2.09
(9) Location	2.1 Mi S SH 133-Lacey
(11) Mile Point	2.09 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000425030
(16) Latitude	33.42605
(17) Longitude	-91.8496
(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	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1965
(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	3800
(30) Year of ADT	2018
(109) Truck ADT	21 %
(19) Bypass, Detour Length	45 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	75 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	27.9 ft
(52) Deck Width Out to Out	33.3 ft
(32) Approach Roadway Width (W/Shoulders)	34.1 ft
(33) Bridge Median	0 - No median
(34) Skew	45 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	30.8 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	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	6
(60) Substructure	6
(61) Channel & Channel Protection	7
(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	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(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	4492
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/25/2023
(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: Sharon Hooks, **Inspection Date:** 07/25/2023

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	03932
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	43 - Drew County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	02 - District 02
B.L.05 Latitude	33.42605
B.L.06 Longitude	-91.8496
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: Sharon Hooks, Inspection Date: 07/25/2023

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 #03932(Routine)

US 425-03 LM 2.09 over Panther Creek

Location: 2.1 Mi S SH 133-Lacey

Team Lead: Sharon Hooks Inspection Date: 07/25/2023

Inspection Notes

General Observation

Beginning of structure toward SH 133, Ashley County Line, South End.06-25-2007, Dropping UW inspection due to sub-str. elements are not continuously submerged. High water events occur. No signs of channel scour up or down stream. NBI Items #60 and #61 will represent all elements that occasionally stand in water. RLW.

A-54 - Sealable Deck Cracks (Y)

Deck:

All spans: Several unsealed, moderate-sized longitudinal cracks / unsealed, moderate-sized diagonal (corner) cracks near gutterline/end of spans, largest at Span 1 left @ Bent 1 - beginning to spall (1/2" deep) along crack / minor to significant abrasive wear in travel lanes.

Soffit:

All spans: Cracking with efflorescence and rust staining, mostly reflective of cracking in deck surface / some scattered areas of patching/grouting/rubbing.

A-59 - Joint Repair Needed (Yes)

Bents 1, 3, & 4: Pourable joint material has deteriorated and joint is mostly filled with dirt and debris.

Bent 2: Joint has been re-sealed, but is losing adhesion in most places.

A-61 - Polymer Overlay Advised (Y)

Deck:

All spans: Several unsealed, hairline- to moderate-sized longitudinal cracks / unsealed, hairline- to moderate-sized diagonal (corner) cracks near gutterline/end of spans, largest at Span 1 left @ Bent 1 - beginning to spall (1/2" deep) along crack / minor to significant abrasive wear in travel lanes.

Soffit:

All spans: Cracking with efflorescence and rust staining, mostly reflective of cracking in deck surface / some scattered areas of patching/grouting/rubbing.

A-64 - Vegetation Removal Requested (Y)

Tree's vines and vegetation on all ends lopes and under bridge impeding inspection process.



Asset #03932(Routine)

US 425-03 LM 2.09 over Panther Creek

Location: 2.1 Mi S SH 133-Lacey

Team Lead: Sharon Hooks Inspection Date: 07/25/2023

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	2262	458	1635	169	0
1090	Exposed Rebar	SF	4	0	0	4	0
1130	Cracking (RC and Other)	SF	315	0	150	165	0
1190	Abrasion/Wear (PSC/RC)	SF	1485	0	1485	0	0
(38) Deck (void-tube construction): 30.16' wide x 75' long = 2262 sqft.							
Deck: All spans: Several unsealed, small to large-sized longitudinal cracks / unsealed, moderate-sized diagonal (corner) cracks near gutterline/end of spans, largest at Span 1 left @ Bent 1 - beginning to spall (1/2" deep) along crack / minor to significant abrasive wear in travel lanes.							
Soffit: All spans: Cracking with efflorescence and rust staining, mostly reflective of cracking in deck surface / some scattered areas of patching/grouting/rubbing.							
215	Reinforced Concrete Abutment	LF	84	84	0	0	0
(215) Abutment: 34' each (skewed - with 4' wingwalls each corner) / Bents 1 & 4.							
227	Reinforced Concrete Pile	EA	10	0	10	0	0
1190	Abrasion/Wear (PSC/RC)	EA	10	0	10	0	0
(227) Piling: 5 per bent / Bents 2-3. Bents 2-3: Light abrasive wear at water/groundline.							
234	Reinforced Concrete Pier Cap	LF	68	64	4	0	0
1090	Exposed Rebar	LF	4	0	4	0	0
(234) Caps: 34' each (skewed) / Bents 2-3. Bents 2 & 3: Minor spalls and some rebar exposed.							
301	Pourable Joint Seal	LF	140	0	0	125	15
2320	Seal Adhesion	LF	70	0	0	70	0
2330	Seal Damage	LF	15	0	0	0	15
2350	Debris Impaction	LF	55	0	0	55	0
(301) Joints: 35' each (skewed) / Bents 1-4. Bents 1, 3, & 4: Pourable joint material has deteriorated and joint is mostly filled with dirt and debris. Bent 2: Joint has been re-sealed, but is losing adhesion in most places.							
321	Reinforced Concrete Approach Slab	SF	1680	0	1680	0	0
1190	Abrasion/Wear (PSC/RC)	SF	1680	0	1680	0	0
(321) Approach slabs: 1 each end (24' wide x 35' long = 840 sqft each) / Bents 1 & 4. Very light map cracking with minor to significant abrasive wear in travel lanes.							
330	Metal Bridge Railing	LF	146	146	0	0	0

Location: 2.1 Mi S SH 133-Lacey

Team Lead: Sharon Hooks **Inspection Date:** 07/25/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
515	Steel Protective Coating	SF	307	0	307	0	0
3410	Chalking (Steel Protective Coatings)	SF	307	0	307	0	0
	(330) Metal railing: 74' each side on top of concrete railing. Coating: 2.1 square feet per linear foot of railing. Metal railing is dull and has no luster.						
331	Reinforced Concrete Bridge Railing	LF	150	150	0	0	0
	(331) Concrete railing: 75' each side with metal railing on top.						

Inspection Photos and Notes



Elevation.



Bent 3 joint seal has loss of adhesion and is missing.



Span 2 deck right has large unsealed cracks.



Span 1 deck right has large unsealed cracks.



Bent 3 cap back right at keyway near pile 4.



Bent 3 joint seal has loss of adhesion and is missing.



Span 2 deck right has large unsealed cracks.



Span 1 deck right has large unsealed cracks.



Trees,vines and vegetation on all endslopes.



Under view.



Trees, vines and vegetation.



Deck over view.



Approach.



Bent 3 right key way in cap has spall with exposed rebar.



Span 3 right has soffit spall near drain opening.



Bent 2 joint seals have lost bond with areas missing.



07/21/2021

Span1 left has large diagonal crack.

Maintenance Needs

Date Reported: 07/10/2017

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 0 - N/A

Status: Monitor

Component:

Deficiency Description

Caps: Bents 2 & 3: Minor spalls with some rebar exposed.

Remarks



Bent 3 left ahead near pile 1 has spall with exposed rebar.



Bent 2 cap near pile 2 has spall with exposed.



Bent 3 cap has spall with exposed rebar at key ways .



Bent 3 cap left has spall with exposed rebar.

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is Recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	Yes
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	Yes
A-62 - Hydro and LMC Advised	
A-63 - Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	Yes
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks (Yes)

Deck:

All spans: Several unsealed, moderate-sized longitudinal cracks / unsealed, moderate-sized diagonal (corner) cracks near gutterline/end of spans, largest at Span 1 left @ Bent 1 - beginning to spall (1/2" deep) along crack / minor to significant abrasive wear in travel lanes.

Soffit:

All spans: Cracking with efflorescence and rust staining, mostly reflective of cracking in deck surface / some scattered areas of patching/grouting/rubbing.



Span 2 deck right has large unsealed cracks.



Span 1 deck right has large unsealed cracks.



Span 2 deck right has large unsealed cracks.



Span 1 deck right has large unsealed cracks.



Span1 left has large diagonal crack.



Asset #03932(Routine)

US 425-03 LM 2.09 over Panther Creek

Location: 2.1 Mi S SH 133-Lacey

Team Lead: Sharon Hooks Inspection Date: 07/25/2023

A-55 - Deck Washing Needed

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

A-57 - Girder End and Bearing Painting Needed

A-58 - Cap Cleaning/Flushing Needed

A-59 - Joint Repair Needed (Yes)

Bents 1, 3, & 4: Pourable joint material has deteriorated and joint is mostly filled with dirt and debris.

Bent 2: Joint has been re-sealed, but is losing adhesion in most places.



Bent 3 joint seal has loss of adhesion and is missing.



Bent 3 joint seal has loss of adhesion and is missing.



Bent 2 joint seals have lost bond with areas missing.

A-60 - Full Girder Painting Needed

A-61 - Polymer Overlay Advised (Yes)

Deck:

All spans: Several unsealed, hairline- to moderate-sized longitudinal cracks / unsealed, hairline- to moderate-sized diagonal (corner) cracks near gutterline/end of spans, largest at Span 1 left @ Bent 1 - beginning to spall (1/2" deep) along crack / minor to significant abrasive wear in travel lanes.

Soffit:

All spans: Cracking with efflorescence and rust staining, mostly reflective of cracking in deck surface / some scattered areas of patching/grouting/rubbing.

A-62 - Hydro and LMC Advised

A-63 - Missing/Incorrect Log Mile Signage

A-64 - Vegetation Removal Requested (Yes)

Tree's vines and vegetation on all ends lopes and under bridge impeding inspection process.



Trees,vines and vegetation on all endslopes.



Trees, vines and vegetation.

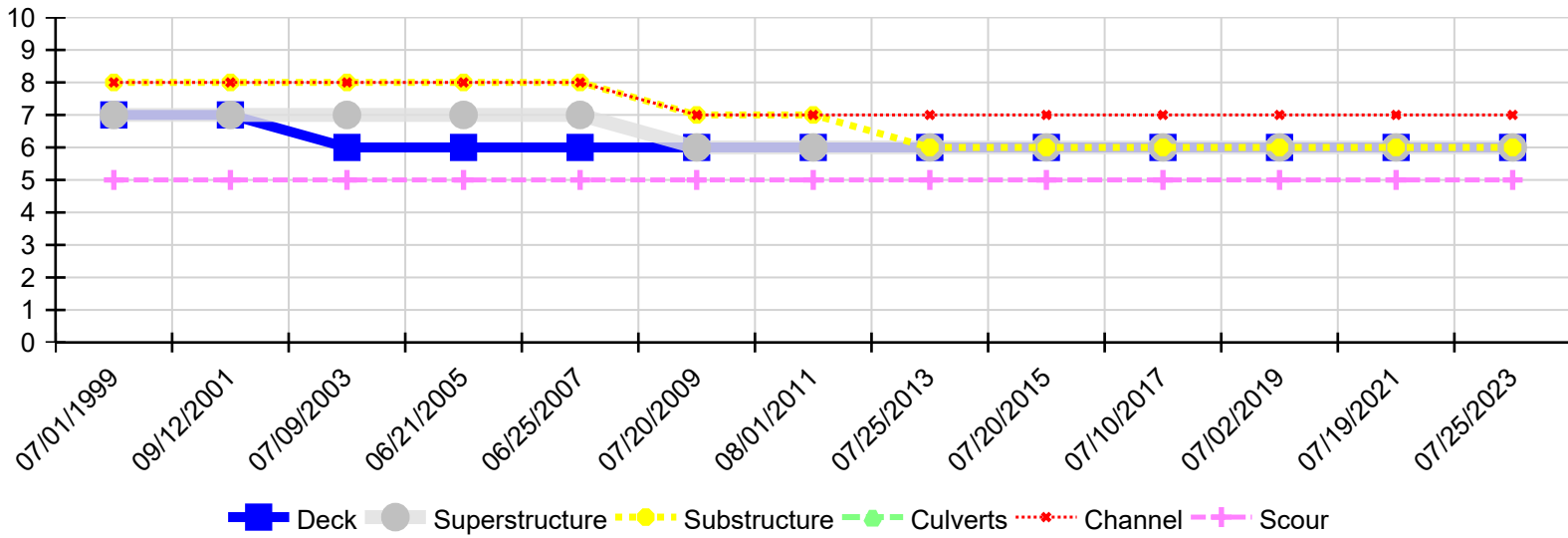
A-65 - Clogged deck drains?

A-66 - Approach minor pothole/leveling needed



Asset #03932(Routine)
US 425-03 LM 2.09 over Panther Creek
Location: 2.1 Mi S SH 133-Lacey
Team Lead: Sharon Hooks Inspection Date: 07/25/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/25/2023	6	6	6	N	7	5
07/19/2021	6	6	6	N	7	5
07/02/2019	6	6	6	N	7	5
07/10/2017	6	6	6	N	7	5
07/20/2015	6	6	6	N	7	5
07/25/2013	6	6	6	N	7	5
08/01/2011	6	6	7	N	7	5
07/20/2009	6	6	7	N	7	5
06/25/2007	6	7	8	N	8	5
06/21/2005	6	7	8	N	8	5
07/09/2003	6	7	8	N	8	5
09/12/2001	7	7	8	N	8	5
07/01/1999	7	7	8	N	8	5