

Bridge 06653 Inspection Report



Latitude:34.14640, Longitude:-93.63303

Route:27 Section:05 Log:7.32

Arnold Road ID:55x27x5xA, Arnold Log mile:7.328

District 03, 109 - Pike County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

Bridge Posting Information

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

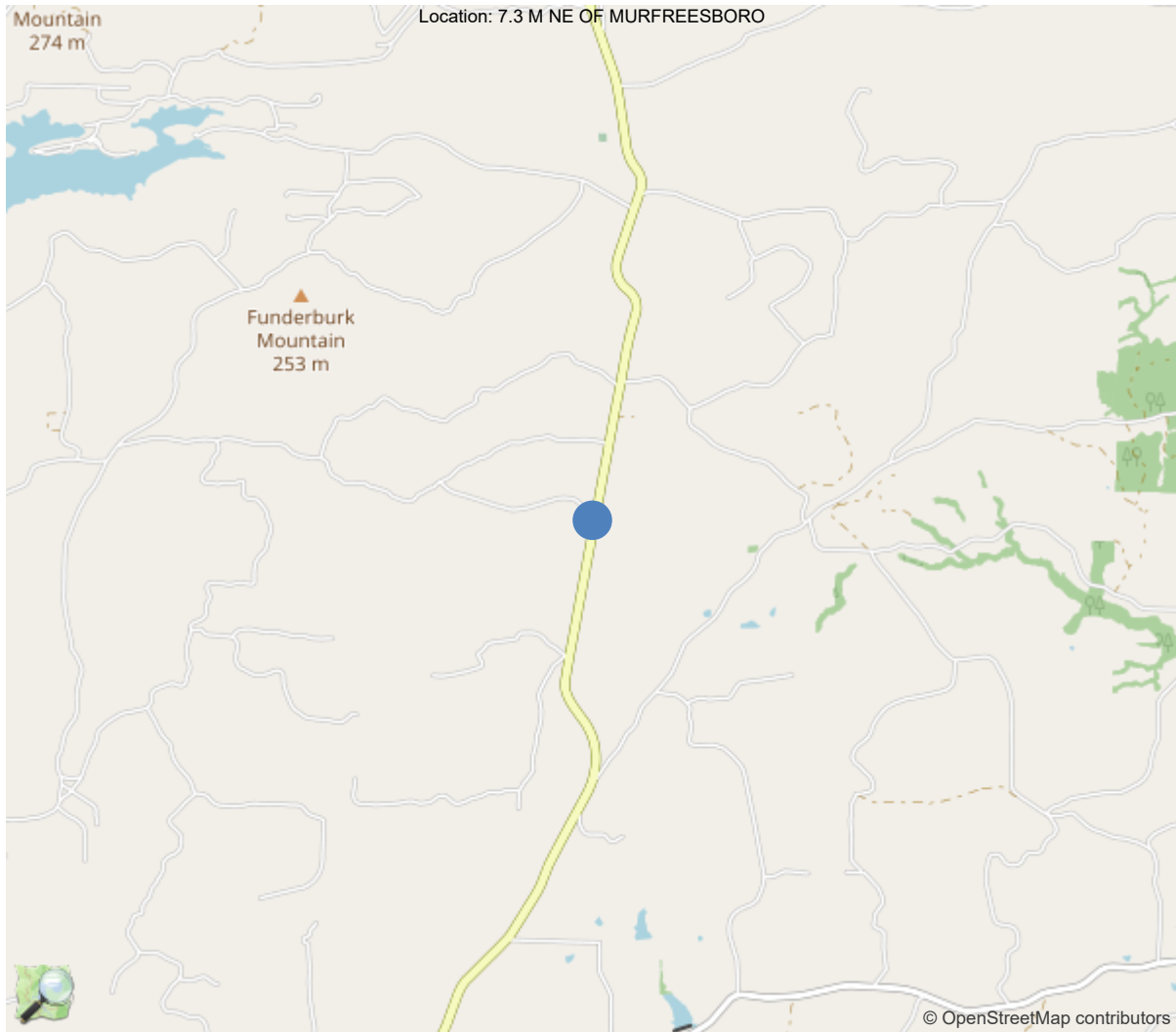
70 - Bridge Posting: 5 - Equal to or above legal loads

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



34.14640, -93.63303

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06653
(5) Inventory Route	1
(2) Highway Agency District	03 - District 03
(3) County Code	109 - Pike County
(4) Place Code	0
(6) Features Intersected	E FORK PRAIRIE CREEK
(7) Facility Carried	SH 27 - 05 - 7.32
(9) Location	7.3 M NE OF MURFREESBORO
(11) Mile Point	7.32 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.1464
(17) Longitude	-93.63303
(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	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	1 - Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1998
(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	2200
(30) Year of ADT	2018
(109) Truck ADT	19 %
(19) Bypass, Detour Length	38 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	41 ft
(49) Structure Length	107 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	42.8 ft
(32) Approach Roadway Width (W/Shoulders)	40 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	40 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	7
(59) Superstructure	8
(60) Substructure	7
(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	7
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(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	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	0
(114) Future ADT	2508
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/23/2024
(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: Jared Kegley, Inspection Date: 07/23/2024

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	06653
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	00436
B.W.01 Year Built	1998

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	109 - Pike County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	03 - District 03
B.L.05 Latitude	34.1464
B.L.06 Longitude	-93.63303
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	7.3 M NE OF MURFREESBORO
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	102
B.G.02 Total Bridge Length	107
B.G.03 Max Span Length	41
B.G.04 Min Span Length	32
B.G.05 Bridge Width Out-to-Out	42.7
B.G.06 Bridge Width Curb-to-Curb	40
B.G.07 Left Curb or Sidewalk Width	0
B.G.08 Right Curb or Sidewalk Width	0
B.G.09 Approach Roadway Width	40

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	15
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	4561.7

LOADS AND LOAD RATING	
B.LR.01 Design Load	HS20 - HS-20
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	1
B.LR.06 Operating Load Rating Factor	1.67
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	
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	7 - GOOD - Some minor defects.
B.C.02 Superstructure Condition	8 - VERY GOOD - Some inherent
B.C.03 Substructure Condition	8 - VERY GOOD - Some inherent
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	7 - GOOD - Some minor defects.
B.C.06 Bridge Railing Transitions Condition	7 - GOOD - Some minor defects.
B.C.07 Bridge Bearings Cond.	7 - GOOD - Some minor defects.
B.C.08 Bridge Joints Condition	7 - GOOD - Some minor defects.
B.C.09 Channel Condition Rating	8 - VERY GOOD - Inherent defec
B.C.10 Channel Protection Condition	N - NOT APPLICABLE - Bridge do
B.C.11 Scour Condition Rating	8 - Insignificant 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	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	2 - Very low - once every 51 to 99
B.AP.03 Scour Vulnerability	AB-T - TEMP - Stable for scour, pos
B.AP.04 Scour Plan of Action	0 - A scour POA is not required.
B.AP.05 Seismic Vulnerability	A - Seismic evaluation completed. B

Team Lead: Jared Kegley, Inspection Date: 07/23/2024

SPAN SETS			
M1			
B.SP.02 # of Spans	3	B.SP.08 Deck Interaction	CU - Composite - unshored cons
B.SP.03 # of Beam Lines	6	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	S02 - Steel - welded	B.SP.10 Wearing Surface	C01 - Concrete - monolithic
B.SP.05 Span Continuity	2 - Continuous	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G02 - Girder/beam - I-shaped s	B.SP.12 Deck Reinforcing Protective System	C01 - Coating - epoxy coated
B.SP.07 Span Protective System	P01 - Patina - uncoated weathe	B.SP.13 Deck Stay-In-Place Forms	M01 - Metal

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	P01 - Pile - steel H-shape
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
P1			
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	B01 - Bent - column or open	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	2200
B.F.03 Feature Name	SH 27 - 05 - 7.32	B.H.10 Annual ADTT	418
B.H.01 Functional Classification	4 - Minor Arterial	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	N - Non-NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	N - Not on the NHFN	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		B.H.16 Highway Max Usable Surface Width	40.6
B.H.07 LRS Mile Point	7.32	B.H.17 Bypass Detour Length	38
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	27	2-T - TEMP - Two-way traffic - NS or EW	3 - State route	1 - Mainline



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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	E Fork Prairie Creek	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
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Asset #06653(Routine)

SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

Team Lead: Jared Kegley Inspection Date: 07/23/2024

Inspection Notes

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Deck is rated a 7 this inspection due to cracking with efflorescence in both concrete deck overhangs. Cracking in top side of deck has been sealed by new polymer overlay.

59 - Superstructure (8 - VERY GOOD CONDITION - no problems noted.)

Superstructure is rated an 8 this inspection due to noteworthy deficiencies.

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

Dropped substructure a 7 due to cracking with efflorescence in both abutments.

61 - Channel/Channel Protection (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

Channel was dropped to a 7 this inspection due to some sediment and debris buildup on downstream side, streambanks are well vegetated.

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

Scour is rated an 8 due to insignificant scour.



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SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

Team Lead: Jared Kegley Inspection Date: 07/23/2024

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	4579	4479	100	0	0
1120	Efflorescence/Rust Staining	SF	100	0	100	0	0
510	Wearing Surfaces	SF	4200	4200	0	0	0
(12) Various locations, Concrete deck overhangs, cracking with efflorescence, 100' total, CS2. New polymer overlay has sealed all cracks. (1120-12) 07/22 efflorescence 50ft undersides of deck left and right side overhang. (510-12) Polymer overlay has been added to top of bridge deck.							
107	Steel Open Girder/Beam	LF	630	630	0	0	0
515	Steel Protective Coating	SF	41344	41344	0	0	0
(107) Continuous weathering steel beams (515-107) Weathering steel beams							
205	Reinforced Concrete Column	EA	4	4	0	0	0
215	Reinforced Concrete Abutment	LF	107	103	4	0	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
(215) Bent 1 abutment, cracking with efflorescence, 4', CS2. Bent 4 abutment, cracking with efflorescence, 3', CS2.							
234	Reinforced Concrete Pier Cap	LF	82	82	0	0	0
301	Pourable Joint Seal	LF	80	80	0	0	0
313	Fixed Bearing	EA	24	24	0	0	0
(313) Weathering steel bearings							
331	Reinforced Concrete Bridge Railing	LF	214	214	0	0	0

Inspection Photos and Notes



Elevation



Deck Under surface



Deck, new polymer overlay



Weathering steel beams



Bent 3 typical



Bent 2 typical



Downstream channel



Upstream channel



Stay in place forms



Inventory



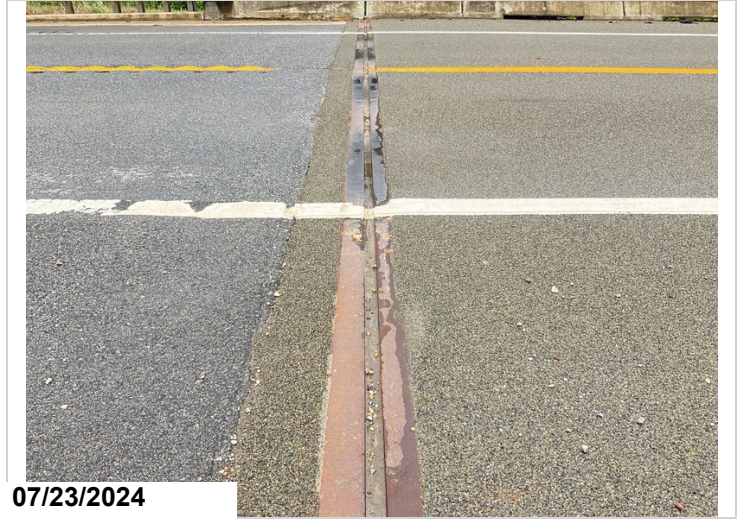
Bent 1 bearings



Bridge railing



Transition railing



Beginning of bridge joint



Insignificant scour



Various locations, Concrete deck overhangs, cracking with efflorescence, CS2.



Deck, new polymer overlay



Continuous weathering steel beams



Bent 4 abutment, cracking with efflorescence, 3', CS2.



Bent 1 abutment, cracking with efflorescence, 4', CS2.



Bent 1 abutment



End of bridge joint



Bent 1 bearings



Asset #06653(Routine)

SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

Team Lead: Jared Kegley Inspection Date: 07/23/2024

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	No
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)



Asset #06653(Routine)

SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

Team Lead: Jared Kegley Inspection Date: 07/23/2024

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 (No)

A-64 - Vegetation Removal Requested (No)

A-65 - Clogged deck drains?



Asset #06653(Routine)

SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

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A-66 - Approach minor pothole/leveling needed



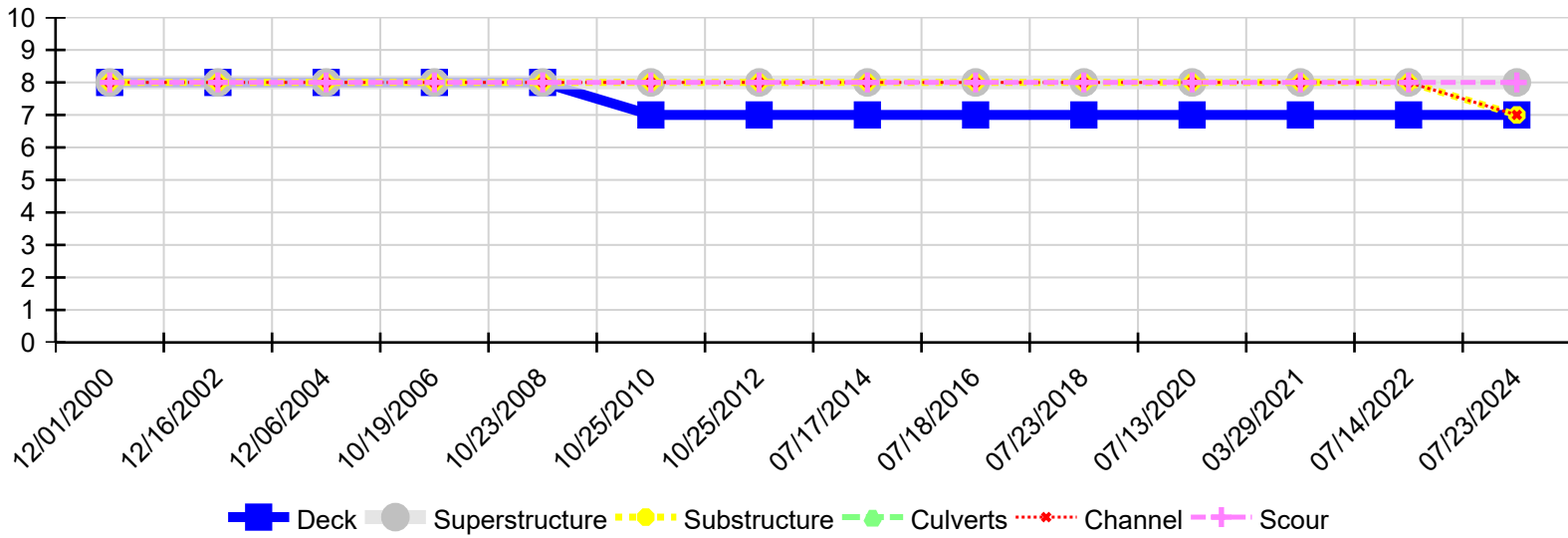
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SH 27 - 05 - 7.32 over E FORK PRAIRIE CREEK

Location: 7.3 M NE OF MURFREESBORO

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Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/23/2024	7	8	7	N	7	8
07/14/2022	7	8	8	N	8	8
03/29/2021	7	8	8	N	8	8
07/13/2020	7	8	8	N	8	8
07/23/2018	7	8	8	N	8	8
07/18/2016	7	8	8	N	8	8
07/17/2014	7	8	8	N	8	8
10/25/2012	7	8	8	N	8	8
10/25/2010	7	8	8	N	8	8
10/23/2008	8	8	8	N	8	8
10/19/2006	8	8	8	N	8	8
12/06/2004	8	8	8	N	8	8
12/16/2002	8	8	8	N	8	8
12/01/2000	8	8	8	N	8	8