



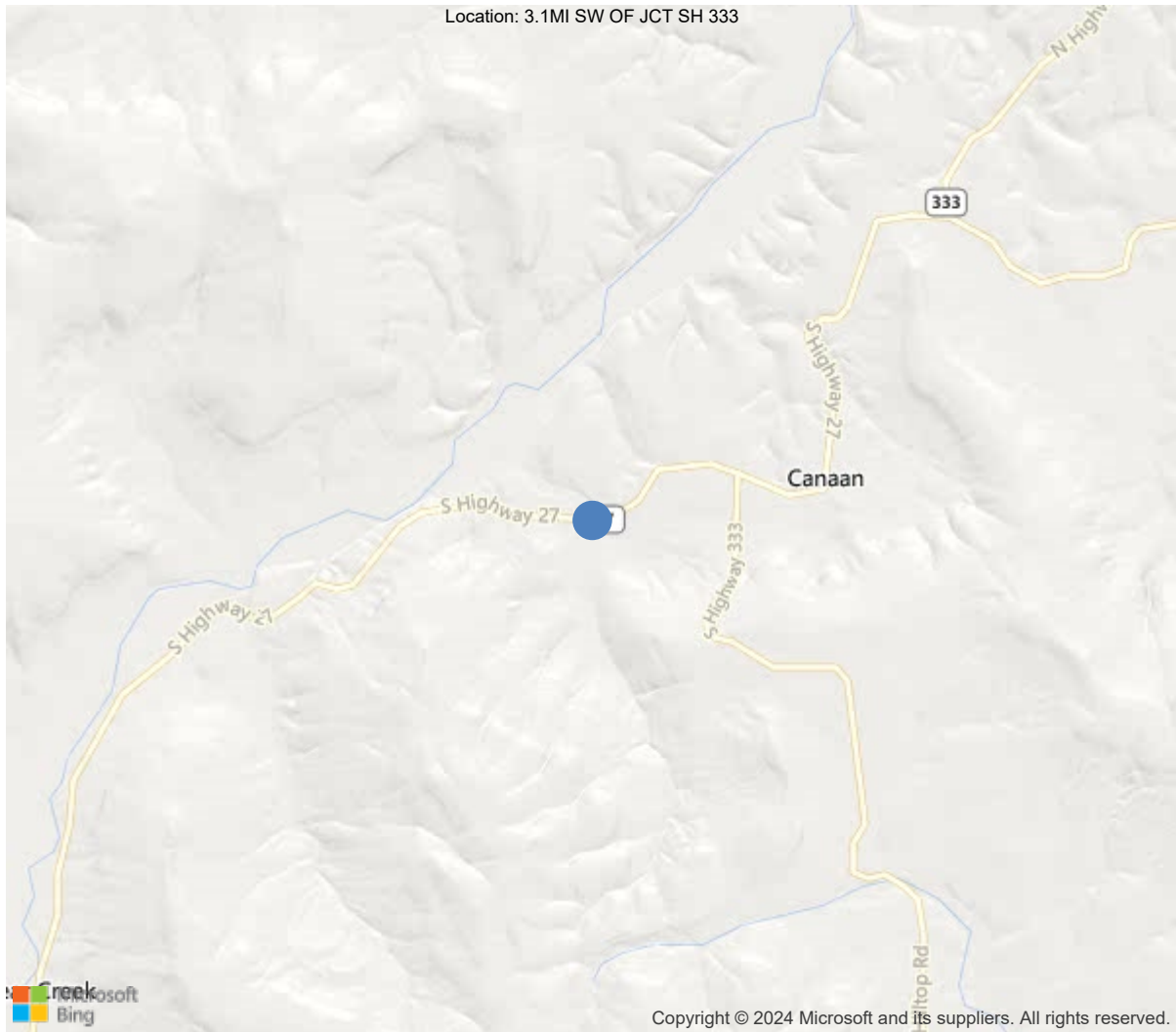
Latitude:35.86468, Longitude:-92.71967

Route:27 Section:16 Log:15.327

Arnold Road ID:64x27x16xA, Arnold Log mile:15.222

District 09, 129 - Searcy County

Owner: 1 - State Highway Agency



35.86468, -92.71967



Asset #M0665(Routine, Underwater type 2)

SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, Inspection Date: 11/16/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0665
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	129 - Searcy County
(4) Place Code	0
(6) Features Intersected	HALSTEAD CREEK
(7) Facility Carried	SH 27 Searcy
(9) Location	3.1MI SW OF JCT SH 333
(11) Mile Point	15.327 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.86468
(17) Longitude	-92.71967
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(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	2 - Concrete Precast Panels
(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	1956
(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	170
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	57 ft
(50) Curb or Sidewalk Width	
Left	0.8 ft
Right	0.8 ft
(51) Bridge Roadway Width Curb to Curb	23.6 ft
(52) Deck Width Out to Out	25.2 ft
(32) Approach Roadway Width (W/Shoulders)	22 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	25.6 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	7 - Rural Major Collector
(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	7
(61) Channel & Channel Protection	7
(62) Culverts	N
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	45
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	27
(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	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	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	264
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	11/16/2022		
(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		
<p>* 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.</p>			



Asset **#M0665**(Routine, Underwater type 2)

District: 09, **County:** 129 - Searcy County

Team Lead: Nathan Rowland, **Inspection Date:** 11/16/2022

General Observation

11/16/2022 WNR & DBM: Routine inspection conducted this date. See element notes for documentation.
Structure is logged from West to East and is accessible with a small ladder.
No bat activity was noted.



Asset #M0665(Routine, Underwater type 2)

SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, Inspection Date: 11/16/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1436	1384	5	47	0
1080	Delamination/Spall/Patched Area	SF	47	0	0	47	0
1120	Efflorescence/Rust Staining	SF	5	0	5	0	0
(16) 11/16/2022 WNR & DBM: Driving surface- Span #1- Units #3,4,6,7 have spalling mostly at the corners of the units at the beginning and end of the span. Units #6,7 are the worst case condition. (15' of patched or spalled area) Span #2- units #2,5 have minor spalling at the corners and ends at the end of the span. (11' of spalled or patched area). Span #3- units #3,4,7 have spalling with exposed rebar at the beginning of the span. Unit #4 has a large patched area at the end of the span. (21' of spalled or patched area). Under surface- Span #1- Unit #5- has 2' of efflorescence. Unit #6- has 2' of efflorescence. Span #2- No deficiencies noted on the under surface. Span #3- unit #7 has 1' of efflorescence near the beginning of the span.							
110	Reinforced Concrete Open Girder/Beam	LF	399	183	8	208	0
1080	Delamination/Spall/Patched Area	LF	202	0	0	202	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	12	0	8	4	0
(110) 11/16/2022 WNR & DBM: 7 RCCB system. The units are bolted and grouted together. Span #1- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #6 has efflorescence map cracking at the beginning of the span for 2'. Span #2- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #3 has a spall with exposed rebar on the diaphragm at the end of the span. Unit #5 has a spall with rebar exposed on the right stem at the beginning of the span. Span #3- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #2 has a spall with rebar exposed on the right stem near mid span. Unit #4 has efflorescence map cracking on the diaphragm and stems for 2' at the end of the span.							
205	Reinforced Concrete Column	EA	4	0	0	4	0
1080	Delamination/Spall/Patched Area	EA	2	0	0	2	0
1090	Exposed Rebar	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	1	0	0	1	0



Asset #M0665(Routine, Underwater type 2)

SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, Inspection Date: 11/16/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>(205) 11/16/2022 WNR & DBM:</p> <p>Bent #1 columns-</p> <p>Column #1- has a large spall with exposed rebar at the interior base and spalling on the span #2 side with cs2 abrasion</p> <p>Column #2- has a large vertical delamination on the span #1 upstream face with cs2 abrasion.</p> <p>Bent #2 columns-</p> <p>Column #1- has vertical delamination at the top of the column with cs2 abrasion</p> <p>Column #2- has cs3 abrasion for 2" along the extreme base of the column.</p>							
215	Reinforced Concrete Abutment	LF	98	73	25	0	0
1130	Cracking (RC and Other)	LF	17	0	17	0	0
1190	Abrasion/Wear (PSC/RC)	LF	8	0	8	0	0
<p>(215) 11/16/2022 WNR & DBM:</p> <p>Abutment #1- has 10' of vertical and diagonal hairline cracking with 8' of cs2 abrasion at the base of the wall.</p> <p>Abutment #2- has 14' of diagonal and vertical hairline cracks. The right embankment has erosion behind the wing wall.</p>							
220	Reinforced Concrete Pile Cap/Footing	LF	114	0	113	1	0
1130	Cracking (RC and Other)	LF	3	0	2	1	0
1190	Abrasion/Wear (PSC/RC)	LF	111	0	111	0	0
<p>(220) 11/16/2022 WNR & DBM:</p> <p>Abutment #1 footing- the concrete footing is exposed for the full length of the abutment. The footing has abrasion for the full length.</p> <p>Bent #1 column footings- columns #1,2 both have 5' of exposed footing each. Both footings have cs2 abrasion. The footings are cast in solid rock.</p> <p>Bent #2 column footings- columns #1,2 both have 5' of exposed footing each. The left footing has 1' of cracking and 4' of abrasion. The right footing has 5' of abrasion. The footings are cast in solid rock.</p> <p>Abutment #2 footing- the concrete footing is exposed for the full length of the abutment except for 4' at the left wing wall. The footing has 1' of cs2 cracking and 1' of cs3 cracking.</p>							
234	Reinforced Concrete Pier Cap	LF	52	30	10	12	0
1080	Delamination/Spall/Patched Area	LF	12	0	0	12	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
<p>(234) 11/16/2022 WNR & DBM:</p> <p>Abutment #1 cap- has 3 vertical hairline cracks.</p> <p>Bent cap #1- has 22' of delamination on the under surface and span #2 face.</p> <p>Bent cap #2- has 1' of spalling under the unit #2 left stem. 10' of cs2 delamination and 2' of vertical hairline cracking.</p> <p>Abutment #1 cap- has 5' of vertical hairline cracking.</p>							
330	Metal Bridge Railing	LF	114	0	112	2	0
1000	Corrosion	LF	112	0	112	0	0
1020	Connection	LF	2	0	0	2	0
515	Steel Protective Coating	SF	342	171	171	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
3440	Effectiveness (Steel Protective Coatings)	LF	171	0	171	0	0
(330) 11/16/2022 WNR & DBM: Right side metal railing- Concrete end post at beginning of span #1 right side has vehicle damage, and has loose connection due to spalling. The rail has cs2 corrosion on the back face at random locations. The front face of the rail has been repainted. Left side metal railing- The rail has cs2 corrosion on the back face at random locations. The front face of the rail has been repainted.							

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1436	1384	5	47	0
1080	Delamination/Spall/Patched Area	SF	47	0	0	47	0
1120	Efflorescence/Rust Staining	SF	5	0	5	0	0
<p>(16) 11/16/2022 WNR & DBM:</p> <p>Driving surface-</p> <p>Span #1-</p> <p>Units #3,4,6,7 have spalling mostly at the corners of the units at the beginning and end of the span. Units #6,7 are the worst case condition. (15' of patched or spalled area)</p> <p>Span #2- units #2,5 have minor spalling at the corners and ends at the end of the span. (11' of spalled or patched area).</p> <p>Span #3- units #3,4,7 have spalling with exposed rebar at the beginning of the span. Unit #4 has a large patched area at the end of the span. (21' of spalled or patched area).</p> <p>Under surface-</p> <p>Span #1-</p> <p>Unit #5- has 2' of efflorescence.</p> <p>Unit #6- has 2' of efflorescence.</p> <p>Span #2-</p> <p>No deficiencies noted on the under surface.</p> <p>Span #3- unit #7 has 1' of efflorescence near the beginning of the span.</p>							

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	399	183	8	208	0
1080	Delamination/Spall/Patched Area	LF	202	0	0	202	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	12	0	8	4	0
<p>(110) 11/16/2022 WNR & DBM: 7 RCCB system. The units are bolted and grouted together. Span #1- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #6 has efflorescence map cracking at the beginning of the span for 2'.</p> <p>Span #2- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #3 has a spall with exposed rebar on the diaphragm at the end of the span. Unit #5 has a spall with rebar exposed on the right stem at the beginning of the span.</p> <p>Span #3- the stems of the channel beams have repaired and un-repaired delamination on the stems. Unit #2 has a spall with rebar exposed on the right stem near mid span. Unit #4 has efflorescence map cracking on the diaphragm and stems for 2' at the end of the span.</p>							

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	4	0	0	4	0
1080	Delamination/Spall/Patched Area	EA	2	0	0	2	0
1090	Exposed Rebar	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	1	0	0	1	0
(205) 11/16/2022 WNR & DBM: Bent #1 columns- Column #1- has a large spall with exposed rebar at the interior base and spalling on the span #2 side with cs2 abrasion Column #2- has a large vertical delamination on the span #1 upstream face with cs2 abrasion. Bent #2 columns- Column #1- has vertical delamination at the top of the column with cs2 abrasion Column #2- has cs3 abrasion for 2" along the extreme base of the column.							
215	Reinforced Concrete Abutment	LF	98	73	25	0	0
1130	Cracking (RC and Other)	LF	17	0	17	0	0
1190	Abrasion/Wear (PSC/RC)	LF	8	0	8	0	0
(215) 11/16/2022 WNR & DBM: Abutment #1- has 10' of vertical and diagonal hairline cracking with 8' of cs2 abrasion at the base of the wall. Abutment #2- has 14' of diagonal and vertical hairline cracks. The right embankment has erosion behind the wing wall.							
220	Reinforced Concrete Pile Cap/Footing	LF	114	0	113	1	0
1130	Cracking (RC and Other)	LF	3	0	2	1	0
1190	Abrasion/Wear (PSC/RC)	LF	111	0	111	0	0
(220) 11/16/2022 WNR & DBM: Abutment #1 footing- the concrete footing is exposed for the full length of the abutment. The footing has abrasion for the full length. Bent #1 column footings- columns #1,2 both have 5' of exposed footing each. Both footings have cs2 abrasion. The footings are cast in solid rock. Bent #2 column footings- columns #1,2 both have 5' of exposed footing each. The left footing has 1' of cracking and 4' of abrasion. The right footing has 5' of abrasion. The footings are cast in solid rock. Abutment #2 footing- the concrete footing is exposed for the full length of the abutment except for 4' at the left wing wall. The footing has 1' of cs2 cracking and 1' of cs3 cracking.							
234	Reinforced Concrete Pier Cap	LF	52	30	10	12	0
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(234) 11/16/2022 WNR & DBM: Abutment #1 cap- has 3 vertical hairline cracks. Bent cap #1- has 22' of delamination on the under surface and span #2 face. Bent cap #2- has 1' of spalling under the unit #2 left stem. 10' of cs2 delamination and 2' of vertical hairline cracking. Abutment #1 cap- has 5' of vertical hairline cracking.							



Elevation with log left to right



Inventory looking direction of log



View of exposed footings at columns



View of span #3 superstructure



View of span #2 superstructure



View of span #1 superstructure



General view of deck



Downstream view



Upstream view



Typical view of driving surface.



Upstream channel view.



Downstream channel view.



Approach view in direction of log mile.



Exposed footings cast in solid rock.



Approach view in direction of log mile.



Right beginning end post has a large spall with exposed rebar.



General view of abutment #2.



Typical view of the undersurface.



General view of abutment #1.



Elevation view. Log mile from left to right.



General view of the bents.



Upstream channel view.



Downstream channel view.



Typical view of driving surface.



Elevation view. Log mile from left to right.



Delamination on column #2 of bent #1.



Spalling with rebar exposed on column #1 of bent #1.



Cs3 abrasion on the extreme lower portion of column #2 of bent #2.



Exposed column footings. The footings are cast in solid rock.
Typical view.



Exposed abutment #2 footing. Typical also of abutment #1.

Maintenance Needs

Date Reported: 11/13/2014

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 9 - None

Status: Assigned

Component:

Deficiency Description

The right beginning of the bridge end post is broken with rebar and anchoring exposed.

Remarks





Asset #M0665(Routine, Underwater type 2)

SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, **Inspection Date:** 11/16/2022

Maintenance Needs

Date Reported: 11/24/2020

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component:

Deficiency Description

The channel beam stems have small spall with rebar exposed and areas of delamination in all 3 spans.

Remarks

Bridge Crew



Asset #M0665(Routine, Underwater type 2)

SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, **Inspection Date:** 11/16/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
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	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	



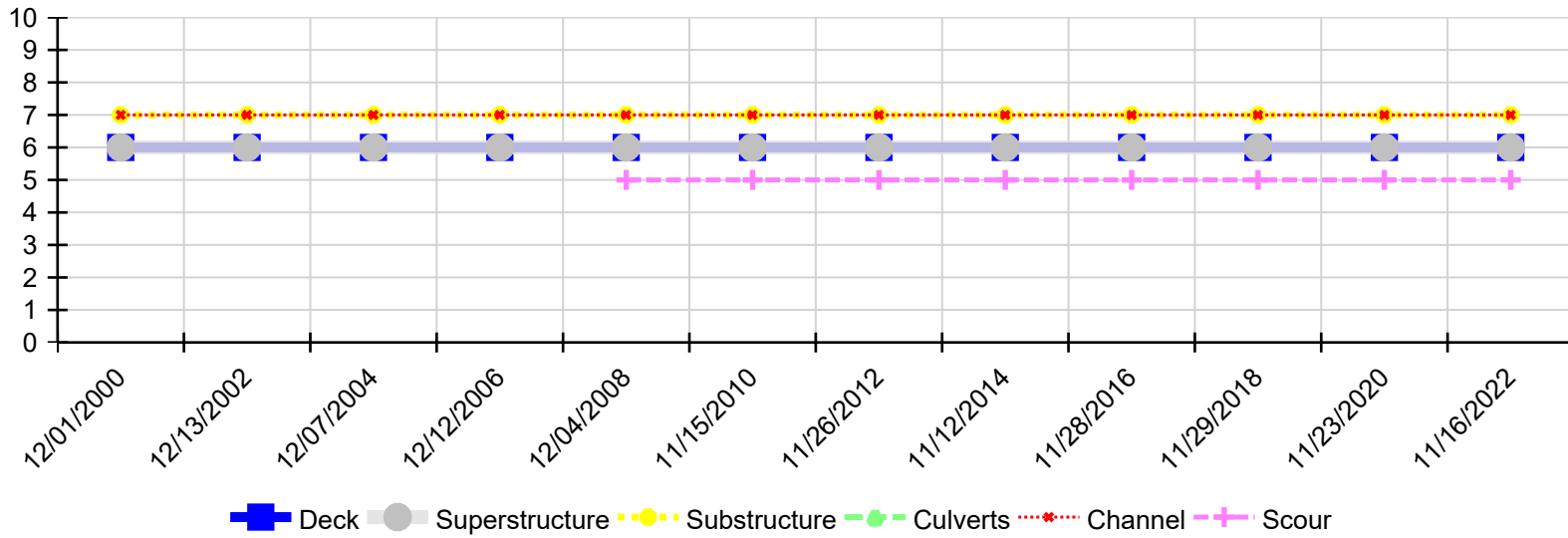
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SH 27 Searcy over HALSTEAD CREEK

Location: 3.1MI SW OF JCT SH 333

Team Lead: Nathan Rowland, Inspection Date: 11/16/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/16/2022	6	6	7	N	7	5
11/23/2020	6	6	7	N	7	5
11/29/2018	6	6	7	N	7	5
11/28/2016	6	6	7	N	7	5
11/12/2014	6	6	7	N	7	5
11/26/2012	6	6	7	N	7	5
11/15/2010	6	6	7	N	7	5
12/04/2008	6	6	7	N	7	5
12/12/2006	6	6	7	N	7	N
12/07/2004	6	6	7	N	7	N
12/13/2002	6	6	7	N	7	N
12/01/2000	6	6	7	N	7	N