



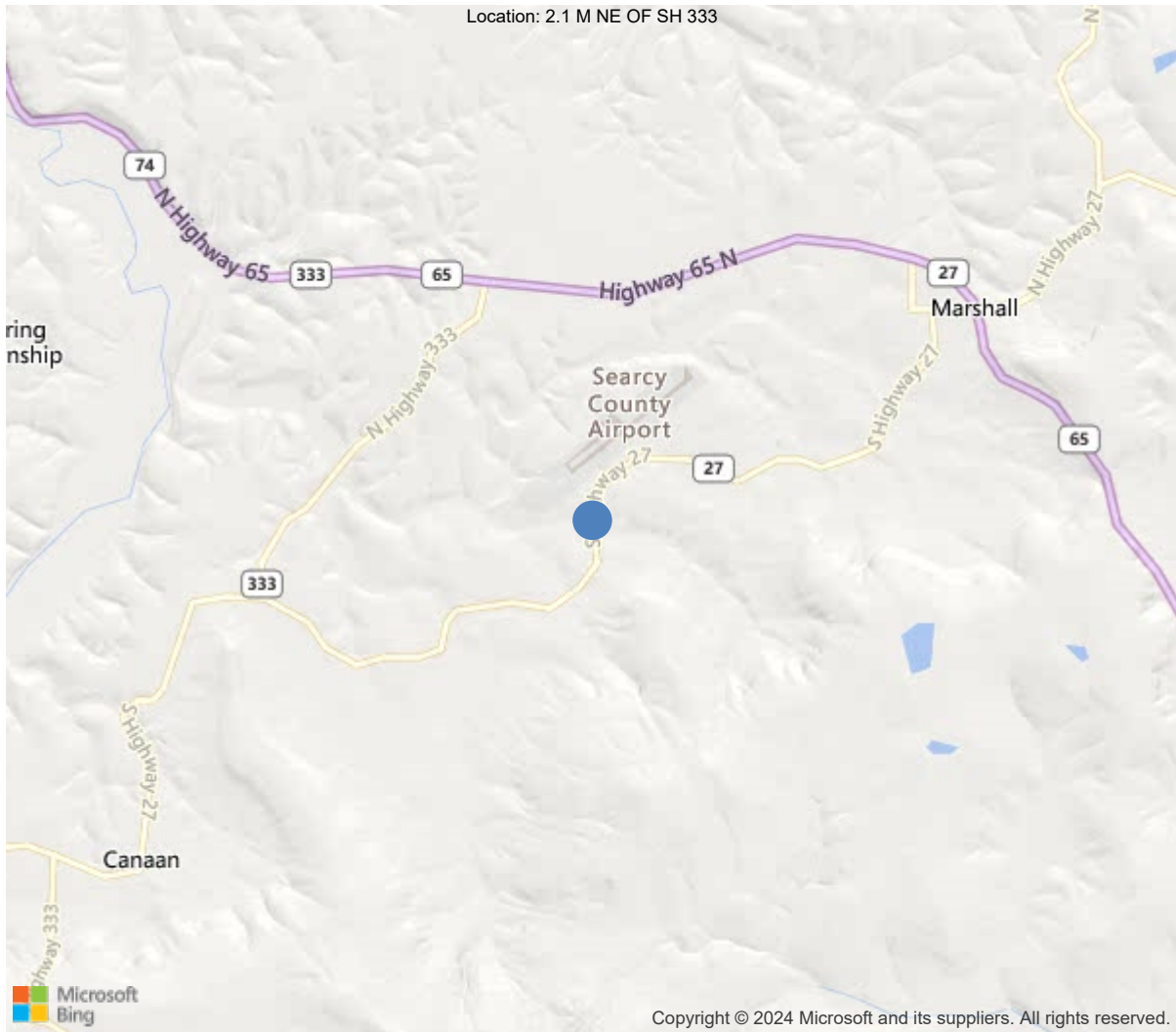
Latitude:35.89183, Longitude:-92.65966

Route:27 Section:16 Log:20.715

Arnold Road ID:64x27x16xA, Arnold Log mile:20.601

District 09, 129 - Searcy County

Owner: 1 - State Highway Agency



35.89183, -92.65966



Asset #M0672(Routine)

SH 27 Searcy over DITCH

Location: 2.1 M NE OF SH 333

Team Lead: Benjamin Smith, Inspection Date: 11/09/2020

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0672
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	129 - Searcy County
(4) Place Code	0
(6) Features Intersected	DITCH
(7) Facility Carried	SH 27 Searcy
(9) Location	2.1 M NE OF SH 333
(11) Mile Point	20.715 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.89183
(17) Longitude	-92.65966
(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	6 - Bituminous
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	300
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	15 ft
(49) Structure Length	45 ft
(50) Curb or Sidewalk Width	
Left	0.7 ft
Right	0.7 ft
(51) Bridge Roadway Width Curb to Curb	24 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	5
(60) Substructure	6
(61) Channel & Channel Protection	6
(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	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	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	6
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(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	377
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	11/09/2020		
(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.			



Asset #M0672(Routine)

District: 09, County: 129 - Searcy County

Team Lead: Benjamin Smith, Inspection Date: 11/09/2020

#### General Observation

Structure is logged from South to North and is accessible from the channel.

No bat activity was noted.

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**58 - Deck** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Roadway has embankment erosion at right beginning of structure behind the right corner of abutment #1 that has extended to the edge of the pavement.

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Asset #M0672(Routine)

SH 27 Searcy over DITCH

Location: 2.1 M NE OF SH 333

Team Lead: Benjamin Smith, Inspection Date: 11/09/2020

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1134	1075	59	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	52	0	52	0	0
1130	Cracking (RC and Other)	SF	6	0	6	0	0
510	Wearing Surfaces	SF	1080	918	96	66	0
3210	Delam/Spall/Patched Area/Pothole	SF	66	0	0	66	0
3220	Crack (Wearing Surface)	SF	96	0	96	0	0
<p>(16) Driving surface- The driving surface of the deck has an indiscriminate asphalt overlay with reflective cracking over the joints and patched areas in the left and right gutter lines. The corners of the end posts have 12" of concrete exposed to traffic, this condition is typical of all 4 corners of the structure.</p> <p>Undersurface-</p> <p>Span #1- the undersurface of the deck of unit #6 in span #1 has 3 transverse cracks with minor efflorescence visible from the under surface.</p> <p>the undersurface of the deck of unit #7 in span #1 has 3 transverse cracks with minor efflorescence visible from under surface.</p> <p>Span #2- has leakage with heavy efflorescence between units #6,7 in span #2. The undersurface of the deck in unit #7 has map cracking with minor efflorescence leaching. The top of the curb section (deck) at the left side of span #1 has a spall with rebar exposed due to vehicle damage.</p> <p>Span #3- has leakage with heavy efflorescence between units #6,7 in span #3. The undersurface of the deck in unit #7 has map cracking with minor efflorescence leaching.</p>							
110	Reinforced Concrete Open Girder/Beam	LF	315	0	294	21	0
1080	Delamination/Spall/Patched Area	LF	43	0	43	0	0
1090	Exposed Rebar	LF	241	0	220	21	0
1130	Cracking (RC and Other)	LF	31	0	31	0	0
<p>(110) Both stems of all channel units in all 3 spans have shallow exposed rebar or spalls due to insufficient coverage during the construction process.</p> <p>Span #1- The right stem of units #3,4,6,7 have deep spalling with exposed longitudinal primary rebar at the beginning and near mid span of span #1. The diaphragms have areas of spalling with exposed rebar over bent #1 in bays #2,6.</p> <p>Span #2- The right stems of channel units #1,4,5,6 in span #2 have areas of spalling with exposed primary longitudinal rebar. Unit #7 has efflorescence cracking on the left stem for the length of the span. The unit #6 diaphragm at the end of the span has spalling with exposed rebar.</p> <p>Span #3 The right stem of units # 2,3,5 have areas of exposed primary longitudinal rebar. The left stem of unit #3 has an area of exposed primary rebar in span #3. Units #2,4 have spalls with exposed rebar on the diaphragms at the beginning of the span.</p>							
210	Reinforced Concrete Pier Wall	LF	50	44	4	2	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	2	0	0	2	0

**Team Lead:** Benjamin Smith, **Inspection Date:** 11/09/2020

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(210) Pier wall #1- has 2' of shallow exposed rebar near the mid section on the span #1 side, the wall also has 2 vertical full height hairline cracks.							
Pier wall #2- has the footing exposed for the length of the wall on the span #2 side with up to 20" of vertical face exposed near the outlet end. The wall has 1' of vertical hairline cracking near the mid section.							
215	Reinforced Concrete Abutment	LF	102	98	3	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(215) Abutment #1- has 3' of hairline vertical cracking and 1' of cs3 spalling on the end of the right integral wing wall.							
Abutment #2- has 15' of vertical and diagonal hairline cracks. The footing is exposed for the length of the abutment with 19" of vertical face exposed.							
220	Reinforced Concrete Pile Cap/Footing	LF	52	26	25	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	LF	25	0	25	0	0
(220) Abutment #1 footing- the footing has cover.							
Pier wall 1 footing- the footing has cover.							
Pier wall 2 footing- has 26' of the footing exposed with 1' of delamination and 25' of cs2 abrasion.							
Abutment 2 footing- has 26' of the footing exposed. The footing is an ugly concrete pour, but has no deficiencies.							
234	Reinforced Concrete Pier Cap	LF	104	80	18	6	0
1080	Delamination/Spall/Patched Area	LF	6	0	0	6	0
1130	Cracking (RC and Other)	LF	18	0	18	0	0
(234) The abutment caps are included in this element quantity.							
Pier cap #1- has 7' of hairline vertical cracking under units #2-5.							
Pier cap #2- has no deficiencies. The top edge of the cap has a horizontal cold joint that looks like a crack.							
Pier cap #3- no deficiencies noted.							
Pier cap #4- has 11' of vertical hairline cracks and 6' of horizontal delamination at the top edge under units #4,5.							
330	Metal Bridge Railing	LF	90	90	0	0	0
1000	Corrosion	LF	0	0	0	0	0
515	Steel Protective Coating	SF	270	135	135	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	135	0	135	0	0
(330) Right side railing- the front side has pin point rusting throughout and the back side has a light rust coating.							
Left side railing- the front side has pin point rusting throughout and the back side has a light rust coating.							



Asset #M0672(Routine)

SH 27 Searcy over DITCH

Location: 2.1 M NE OF SH 333

Team Lead: Benjamin Smith, Inspection Date: 11/09/2020

## Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1134	1075	59	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	52	0	52	0	0
1130	Cracking (RC and Other)	SF	6	0	6	0	0
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3220	Crack (Wearing Surface)	SF	96	0	96	0	0
<p>(16) Driving surface- The driving surface of the deck has an indiscriminate asphalt overlay with reflective cracking over the joints and patched areas in the left and right gutter lines. The corners of the end posts have 12" of concrete exposed to traffic, this condition is typical of all 4 corners of the structure.</p> <p>Undersurface-</p> <p>Span #1- the undersurface of the deck of unit #6 in span #1 has 3 transverse cracks with minor efflorescence visible from the under surface.</p> <p>the undersurface of the deck of unit #7 in span #1 has 3 transverse cracks with minor efflorescence visible from under surface.</p> <p>Span #2- has leakage with heavy efflorescence between units #6,7 in span #2. The undersurface of the deck in unit #7 has map cracking with minor efflorescence leaching. The top of the curb section (deck) at the left side of span #1 has a spall with rebar exposed due to vehicle damage.</p> <p>Span #3- has leakage with heavy efflorescence between units #6,7 in span #3. The undersurface of the deck in unit #7 has map cracking with minor efflorescence leaching.</p>							

**58 - Deck** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Comment: Roadway has embankment erosion at right beginning of structure behind the right corner of abutment #1 that has extended to the edge of the pavement.

## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	315	0	294	21	0
1080	Delamination/Spall/Patched Area	LF	43	0	43	0	0
1090	Exposed Rebar	LF	241	0	220	21	0
1130	Cracking (RC and Other)	LF	31	0	31	0	0
<p>(110) Both stems of all channel units in all 3 spans have shallow exposed rebar or spalls due to insufficient coverage during the construction process.</p> <p>Span #1- The right stem of units #3,4,6,7 have deep spalling with exposed longitudinal primary rebar at the beginning and near mid span of span #1. The diaphragms have areas of spalling with exposed rebar over bent #1 in bays #2,6.</p> <p>Span #2- The right stems of channel units #1,4,5,6 in span #2 have areas of spalling with exposed primary longitudinal rebar. Unit #7 has efflorescence cracking on the left stem for the length of the span. The unit #6 diaphragm at the end of the span has spalling with exposed rebar.</p> <p>Span #3 The right stem of units # 2,3,5 have areas of exposed primary longitudinal rebar. The left stem of unit #3 has an area of exposed primary rebar in span #3. Units #2,4 have spalls with exposed rebar on the diaphragms at the beginning of the span.</p>							

## Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
210	Reinforced Concrete Pier Wall	LF	50	44	4	2	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(210) Pier wall #1- has 2' of shallow exposed rebar near the mid section on the span #1 side, the wall also has 2 vertical full height hairline cracks.							
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1130	Cracking (RC and Other)	LF	3	0	3	0	0
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220	Reinforced Concrete Pile Cap/Footing	LF	52	26	25	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	LF	25	0	25	0	0
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Pier cap #3- no deficiencies noted.							
Pier cap #4- has 11' of vertical hairline cracks and 6' of horizontal delamination at the top edge under units #4,5.							



Elevation view log mile from left to right.



Approach view in direction of log mile.



Exposed footing at abutment 2.



Exposed footing for the full width of pier wall 2.



Downstream channel view.



Upstream channel view.



Typical view of driving surface.



General view of abutment #2.



Typical view of driving surface.



Spall with rebar exposed in the diaphragm of unit #2 at the end of span #1. Typical.



Exposed footing with 20" of vertical face exposed on the span #2 side of pier wall #2.



General view of abutment #1.



Downstream channel view.



Efflorescence map cracking in the undersurface of the deck of unit #7 typical in spans #1,2,3.



Elevation view. Log mile from left to right.



Span #2 undersurface view.



Deep spalling with exposed primary longitudinal rebar in the right stem of unit #4 in span #1. Typical of several locations.



Span #3 Undersurface condition.



19" of vertical face of the footing exposed at abutment #2 for the length of the abutment.



General view of the pier walls.



Spall with exposed rebar on the left curb at post #3.



Approach view in direction of log mile.



General view of the back side of the bridge railing.



Undersurface condition in span #1.



General view of the front face of the metal railing.



Upstream channel view.



12" of concrete exposed to traffic. Typical of all 4 corners.

#### Maintenance Needs

Date Reported: 11/16/2012

Priority: C - Important

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

Status: Assigned

Component:

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#### Deficiency Description

Superstructure - Both stems of all channel units have cracking with spalling that is exposing rebar due to insufficient coverage during the construction process. Numerous delaminated areas exist through out structure. The right stem of unit #6,7 has areas of exposed primary rebar near mid span of span #1. The right stem of units #3,4 in span #1 have areas of spalling with exposed rebar. Areas of spalling with exposed rebar exist in the diaphragms over bent #1. The right stems of channel units #1,4,5 in span #2 have areas of spalling with exposed primary rebar. Span #3- The right stem of units # 2,3,5 have areas of exposed primary rebar. The left stem of unit #3 has areas of exposed primary rebar in span #3.

#### Remarks

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**Asset #M0672(Routine)**

**SH 27 Searcy over DITCH**

**Location: 2.1 M NE OF SH 333**

**Team Lead:** Benjamin Smith, **Inspection Date:** 11/09/2020

## **Routine Maintenance**

Check Box Maintenance Items

<b>Type of Maintenance</b>	<b>Is recommended?</b>
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	



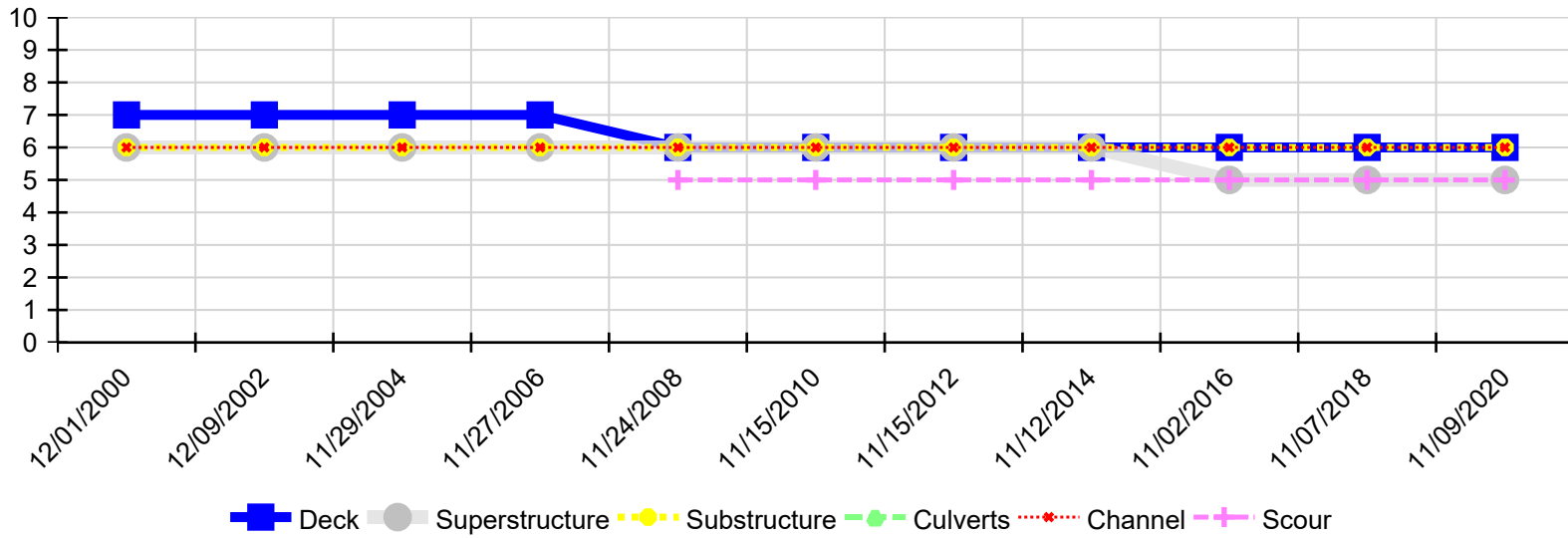
Asset #M0672(Routine)

SH 27 Searcy over DITCH

Location: 2.1 M NE OF SH 333

Team Lead: Benjamin Smith, Inspection Date: 11/09/2020

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/09/2020	6	5	6	N	6	5
11/07/2018	6	5	6	N	6	5
11/02/2016	6	5	6	N	6	5
11/12/2014	6	6	6	N	6	5
11/15/2012	6	6	6	N	6	5
11/15/2010	6	6	6	N	6	5
11/24/2008	6	6	6	N	6	5
11/27/2006	7	6	6	N	6	N
11/29/2004	7	6	6	N	6	N
12/09/2002	7	6	6	N	6	N
12/01/2000	7	6	6	N	6	N