



Latitude:35.21270, Longitude:-94.25996

Route:10 Section:01 Log:0.01

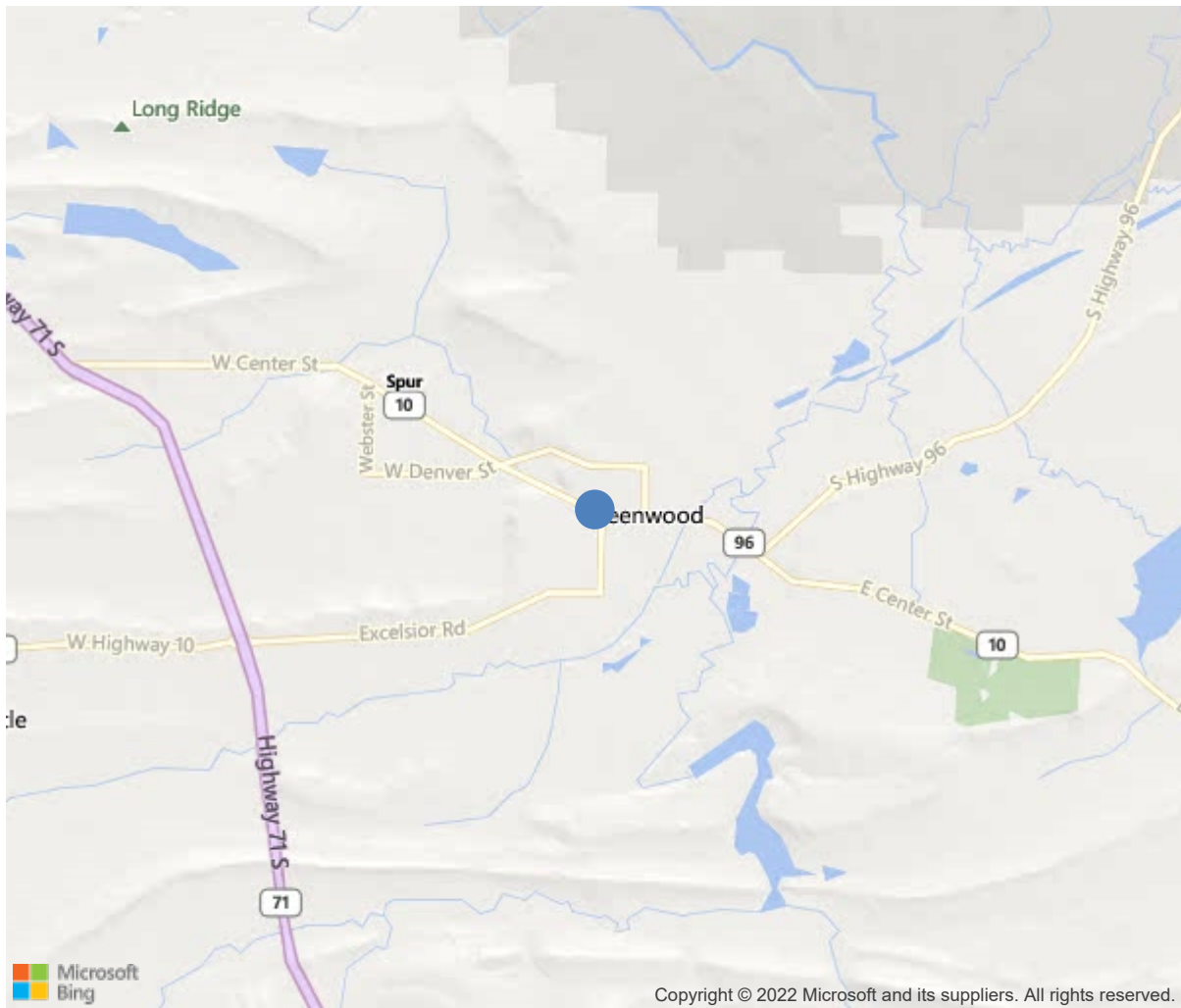
Arnold Road ID:65x10x1xA, Arnold Log mile:0.01

District 04, Sebastian County

Owner: 1-State Highway Agency

Place Code: 28780 - Greenwood

0.04 MI E OF SH 10 SPUR



35.21270, -94.25996

Inspection Direction : W to E



Bridge #06166(Routine, Underwater type 2)

State Highway 10 over Heartsill Creek-Seb. Co

Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West Inspection Date: August 30, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06166
(5) Inventory Route	10
(2) Highway Agency District	04
(3) County Code	131-Sebastian County, Arkansas
(4) Place Code	28780
(6) Features Intersected	Heartsill Creek-Seb. Co
(7) Facility Carried	State Highway 10
(9) Location	0.04 MI E OF SH 10 SPUR
(11) Mile Point	0.01 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000001010
(16) Latitude	35.2127
(17) Longitude	-94.25996
(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	5
(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 placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1986
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	3
Under	0
(29) Average Daily Traffic	13000
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	2 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	175 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	43 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	45 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	41 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 water
(111) Pier Protection	1-Navigation protection not requ
(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 a S
(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 part of the
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	6
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	8
(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	5
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	6
(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 currently a
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	5-Bridge foundations determined to be
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	18450
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	08/2021		
(91) Frequency	24 Months		
(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.			



Bridge #06166(Routine, Underwater type 2)

State Highway 10 over Heartsill Creek-Seb. Co

Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West, Inspection Date: August 30, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	7525	4495	2418	612	0
1080	Delamination/Spall/Patched Area	SF	13	0	13	0	0
1120	Efflorescence/Rust Staining	SF	25	0	10	15	0
1130	Cracking (RC and Other)	SF	2292	0	1695	597	0
1190	Abrasion/Wear (PSC/RC)	SF	700	0	700	0	0
(38)	<p>-Driving surface of the deck has numerous sealable cracks. The majority of the cracks are perpendicular to the skew angle. The cracks are moderate width in several locations.</p> <p>-The driving lanes have light wear and areas of map cracking in the exterior travel lanes.</p> <p>-The left edge of span #2 has a 2' delaminated area.</p> <p>Undersurface:</p> <p>-The undersurface of the slab has cracking that is perpendicular to the substructure with light efflorescence.</p> <p>-Span #1 undersurface has moderate width longitudinal cracking along the centerline.</p> <p>-Span #2 undersurface has moderate width longitudinal cracking along the centerline and concrete delamination at midspan on the Lt undersurface.</p> <p>-Span #3 undersurface has an area of honeycombing with exposed reinforcing steel in the left side near mid-span. The undersurface has a moderate width longitudinal crack adjacent to the centerline near midspan.</p> <p>-Span #4 undersurface has longitudinal moderate width cracking Rt of the centerline. The Lt undersurface has several concrete delamination's on the undersurface.</p>						
205	Reinforced Concrete Column	EA	16	4	10	2	0
1080	Delamination/Spall/Patched Area	EA	1	0	1	0	0
1090	Exposed Rebar	EA	1	0	0	1	0
1130	Cracking (RC and Other)	EA	2	0	1	1	0
1190	Abrasion/Wear (PSC/RC)	EA	8	0	8	0	0
(205)	<p>-Bent #2, column #1 has numerous areas of shallow spalling with exposed reinforcing steel approximately 8" long located in the ahead face of column.</p> <p>-The bases of the columns at bents #3 and #4 have light abrasion near the normal water elevation.</p> <p>-There are grouted repairs at the base of the columns in random areas. Repairs appear to be holding at this inspection.</p> <p>-Bent #5, column #1 has delaminated concrete at the cap juncture. Column #4 has horizontal cracking at the cap juncture.</p>						
215	Reinforced Concrete Abutment	LF	124	121	3	0	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	2	0	2	0	0
(215)	<p>-Abutment #2 has a 12" long horizontal hairline crack adjacent to the right wing wall juncture outside the bearing area.</p> <p>-The left side of abutment #2 has a softball sized spall below the end post at the cap juncture.</p>						
234	Reinforced Concrete Pier Cap	LF	240	176	47	17	0
1080	Delamination/Spall/Patched Area	LF	46	0	38	8	0

Bridge #06166(Routine, Underwater type 2)
State Highway 10 over Heartsill Creek-Seb. Co

Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West, **Inspection Date:** August 30, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1090	Exposed Rebar	LF	10	0	1	9	0
1130	Cracking (RC and Other)	LF	8	0	8	0	0
(234)							
-Substructure caps have water stains indicating that the deck joint seals are leaking. -One shallow basketball sized spall in the center keyway of bents # 2 & 3 with exposed reinforcing steel. -Bent #2 has a 24" spall with exposed reinforcing steel with up to 2" of concrete section loss at the centerline. There is a 24" delaminated area adjacent to the spall. The exposed reinforcing steel has active corrosion with up to approximately 1/8" section loss. The left side of bent #2 cap has delaminated concrete along the bottom edge and in the undersurface along with spalls that expose reinforcing steel in the vertical face adjacent to column #1 that extends toward mid-span approximately 4'. The cap has delaminated areas adjacent to column #2. -Bent # 3 left edge of the cap has a 10" spall that has exposed reinforcing steel. Exposed reinforcing steel has active corrosion with up to initial section loss at this inspection. The undersurface of Bent #3 cap has a 6' delaminated area between columns # 1 & 2 and a 10' long delaminated area between columns # 2 & 3. The undersurface of the caps have several small delaminated areas and short duration cracks that correspond with areas that appear to have large amounts of water leakage through the deck joint seals. -Bent #4 has shallow spalling near the centerline with exposed reinforcing steel and delaminated concrete. The Rt half of the cap has several concrete delamination's -Bent #5 has concrete delamination's on the undersurface of the cap between columns 1-3.							
302	Compression Joint Seal	LF	228	0	212	16	0
2310	Leakage	LF	228	0	212	16	0
(302)							
-The compression joint seals are deteriorating and have numerous areas of adhesion failure and leak water. -Areas of the seals are missing and allowing incompressible materials to fill the joints. -No apparent recent repairs to the joints seals.							
331	Reinforced Concrete Bridge Railing	LF	350	327	22	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	22	0	22	0	0
(331)							
-Parapet wall has vertical hairline cracking over the edges of the drain openings and in other random locations.							



Roadway



Typical undersurface of the slab.



Span #4 Lt concrete delamination along the edge of the slab undersurface.



Span #4 moderate width longitudinal cracking along with cracking with efflorescence buildup.



Bent #2 column #1 spalling with exposed reinforcing steel.



Abutment #2 Rt undermining.



Bent #2 cap spalling and delaminated concrete.



Bent #2 cap spalling with exposed reinforcing steel at centerline.



Bent #3 concrete deterioration with spalling that exposes reinforcing steel large delaminated areas on the undersurface of the cap.



Bent #5 failing compression joint.



Bent #4 failing compression joint seal.

Maintenance Needs

Date Reported: 11/04/2011
Priority: G - General/ Preventive maintenance
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: 38 - RC Slab

Deficiency Description

Deck -
The driving surface of the deck has numerous sealable cracks in all spans.

Remarks



Span #3, right lane-Cracking.



Span #4-Deck cracking perpendicular to skew angle.



Span #3-Diagonal cracking.

Date Reported: 11/04/2011
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: 234 - Reinforced Concrete Pier Cap

Deficiency Description

Substructure -

Bents #2 and #3 caps have delaminated areas and large spalls with exposed reinforcing steel where the deck joint seals leak water on the substructure caps.

Remarks



Bent #2 cap, left side-Spalling with exposed reinforcing steel with delaminated areas.



Bent #2 cap at mid-span-Spalling with exposed reinforcing steel with up to 2" of concrete section loss.



Bent #2 cap at mid-span-Spalling with exposed reinforcing steel with up to 2" of concrete section loss.

Date Reported: 11/04/2011
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: 302 - Compression Joint Seal

Deficiency Description

Expansion Joint Seals -

Expansion joint sealant is deteriorated and allowing incompressible materials in the deck joint. There are water stains on the substructure caps from apparent water leakage through the deck joint seals.

Remarks



Bent #3-Adhesion failure / deteriorated joint seal.



Bent #4 expansion joint seal-Adhesion failure.

Date Reported: 08/25/2015
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: 215 - Reinforced Concrete Abutment

Deficiency Description

Abutment #2, Right side -

The right side of abutment #2 has minor erosion / earth settlement at the end of the abutment near the wing wall juncture.

Remarks



Bent # 6 Right minor settlement



Abutment #2, right side-Minor erosion.



Bridge #06166(Routine, Underwater type 2)
State Highway 10 over Heartsill Creek-Seb. Co
Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West **Inspection Date:** August 30, 2021

Date Reported: 08/25/2015
Priority: G - General/ Preventive maintenance
Type of Work: Repair
Status: Monitor
Inspection Direction W to E
Component: Approach

Deficiency Description

West approach roadway -
The West approach roadway at abutment #1 has minor asphalt settlement.

Remarks



Bent # 1 Asphalt settlement at the approach



West approach-Settlement.



Bridge #06166(Routine, Underwater type 2)
State Highway 10 over Heartsill Creek-Seb. Co
Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West **Inspection Date:** August 30, 2021



West approach asphalt breaking apart and settlement.



Bridge #06166(Routine, Underwater type 2)
State Highway 10 over Heartsill Creek-Seb. Co
Location: 0.04 MI E OF SH 10 SPUR

Team Lead: Eric West **Inspection Date:** August 30, 2021

Inspection Comments

08/16/2017 - JCJ & JML - Type 2 Underwater Inspection - Wading and probing during low and turbid water conditions indicate that the footings have cover with no apparent scour problems at this inspection.

Substructure Notes

08/30/2021 - EJW & JPW - Underwater Type 2 Inspection conducted on this date. Visual observation during low water conditions indicate footings have cover with no apparent scour problems at this inspection.