



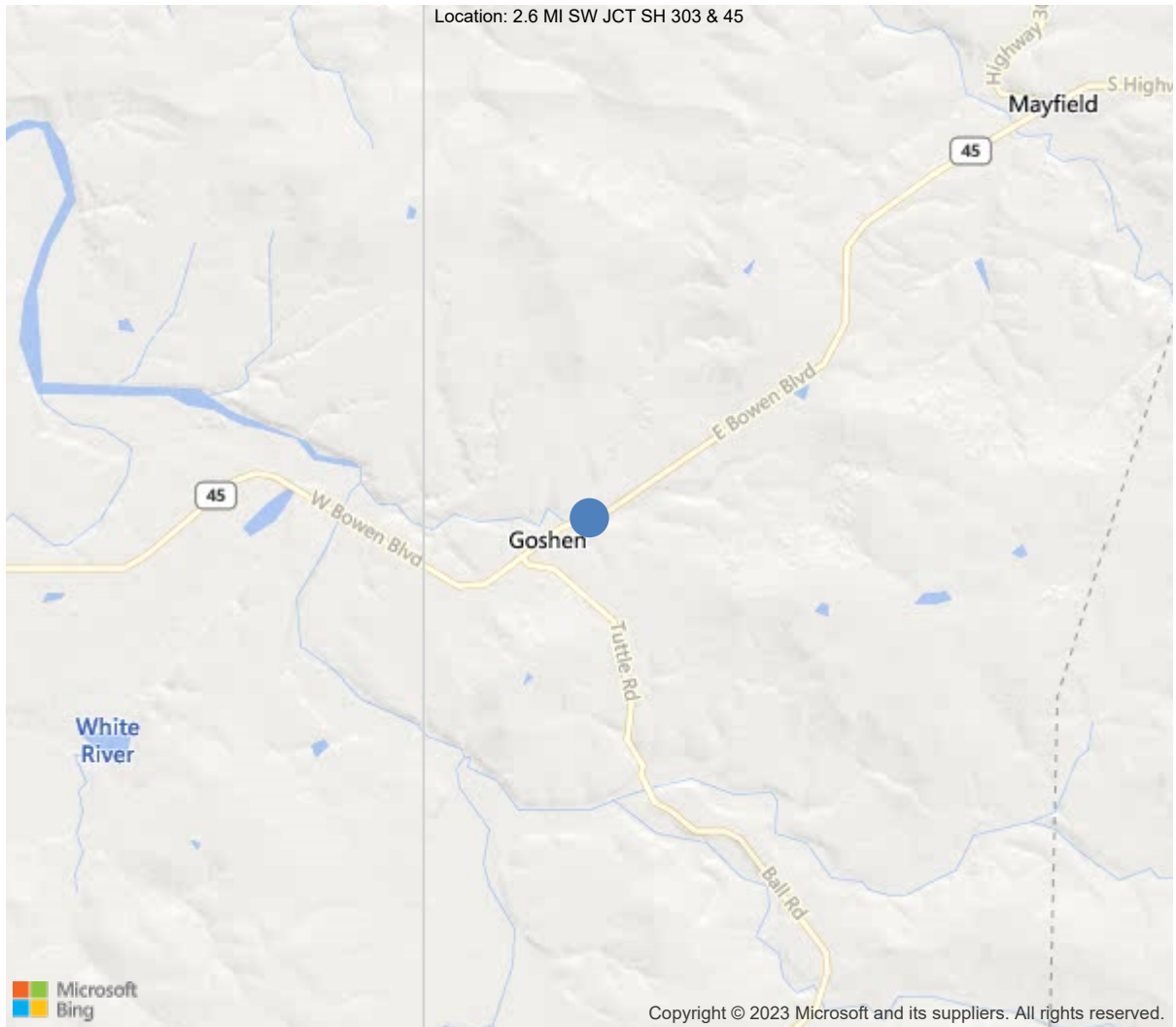
Latitude:36.10375, Longitude:-93.98536

Route:45 Section:05 Log:11.247

Arnold Road ID:72x45x5xA, Arnold Log mile:11.237

District 04, 143 - Washington County

Owner: 1 - State Highway Agency



36.10375, -93.98536



Asset #M0912(Routine)

SH 45-Wash. Co. over Creek

Location: 2.6 MI SW JCT SH 303 & 45

Team Lead: Eric West, Inspection Date: 12/11/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M0912
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	143 - Washington County
(4) Place Code	0
(6) Features Intersected	Creek
(7) Facility Carried	SH 45-Wash. Co.
(9) Location	2.6 MI SW JCT SH 303 & 45
(11) Mile Point	11.247 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.10375
(17) Longitude	-93.98536
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	119
Material	1 - Concrete
Type	19 - Culvert
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	N - Not applicable
(108) Wearing Surface/Protective System	
Type of Wearing Surface	N - Not applicable (applies only to stru
Type of Membrane	N - Not applicable (applies only to stru
Type of Deck Protection	N - Not applicable (applies only to stru
AGE AND SERVICE	
(27) Year Built	1951
(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	3900
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	6 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	10 ft
(49) Structure Length	21 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	0 ft
(52) Deck Width Out to Out	0 ft
(32) Approach Roadway Width (W/Shoulders)	21 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	99.9 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 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 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	N
(59) Superstructure	N
(60) Substructure	N
(61) Channel & Channel Protection	6
(62) Culverts	5
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	29
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	18
(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	N
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(72) Approach Roadway Alignment	8
(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	0 - Inspected feature does not meet
(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	
(114) Future ADT	4641
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	12/11/2023		
(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.			



Asset #M0912(Routine)

District: 04, County: 143 - Washington County

Team Lead: Eric West, Inspection Date: 12/11/2023

General Observation

12/11/2023 - EJW & JPW - Routine Inspection conducted on this date.

61 - Channel/Channel Protection (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.) Channel is generally in good condition and banks appear to be stable.

62 - Culverts (5 - Moderate to major deterioration or disintegration, extensive cracking and leaching or spalls on concrete or masonry walls and slabs. Minor settlement or misalignment. Noticeable scouring or erosion at curtain walls, wingwalls or pipes. Metal culverts have significant distortion and deflection in one section, significant corrosion or deep pitting.) Culvert is generally in fair condition with areas of concrete deterioration and spalling with exposed reinforcing steel.

A-15 - Late Reason (Optimize Schedule)

Structure inspected late due to inspectors on leave.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
241	Reinforced Concrete Culvert	LF	66	10	32	24	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	3	0	0	3	0
1120	Efflorescence/Rust Staining	LF	7	0	0	7	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0
1190	Abrasion/Wear (PSC/RC)	LF	37	0	23	14	0

(241) There is map cracking with efflorescence and soft deteriorated concrete in both headwalls.
Concrete deterioration to the left end of wall # 2.
Barrel # 1 exterior wall has a shallow 2" spall at base of wall with exposed reinforcing steel located approximately 10' from right end.
There is map cracking with heavy efflorescence and leaching with light scale in the top slab at the inlet end and outlet ends of both barrels.
There is medium abrasion in the bottom slab and in the base of walls.
There is map cracking with efflorescence in the center wall at the outlet end of box.
There are 3 softball size spalls with exposed reinforcing steel in the left side of wall # 2 in barrel # 1.
The right wing wall of barrel # 1 has minor scour along the face of the footing.
The base of the left wing wall at barrel # 1 has a 5' long area of concrete deterioration with up to 4" of concrete section loss.
The interior of barrel # 2 has approximately 24' of streambed material accumulation.

**Culvert**

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
241	Reinforced Concrete Culvert	LF	66	10	32	24	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
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1120	Efflorescence/Rust Staining	LF	7	0	0	7	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0
1190	Abrasion/Wear (PSC/RC)	LF	37	0	23	14	0
<p>(241) There is map cracking with efflorescence and soft deteriorated concrete in both headwalls. Concrete deterioration to the left end of wall # 2. Barrel # 1 exterior wall has a shallow 2" spall at base of wall with exposed reinforcing steel located approximately 10' from right end. There is map cracking with heavy efflorescence and leaching with light scale in the top slab at the inlet end and outlet ends of both barrels. There is medium abrasion in the bottom slab and in the base of walls. There is map cracking with efflorescence in the center wall at the outlet end of box. There are 3 softball size spalls with exposed reinforcing steel in the left side of wall # 2 in barrel # 1. The right wing wall of barrel # 1 has minor scour along the face of the footing. The base of the left wing wall at barrel # 1 has a 5' long area of concrete deterioration with up to 4" of concrete section loss. The interior of barrel # 2 has approximately 24' of streambed material accumulation.</p>							

62 - Culverts (5 - Moderate to major deterioration or disintegration, extensive cracking and leaching or spalls on concrete or masonry walls and slabs. Minor settlement or misalignment. Noticeable scouring or erosion at curtain walls, wingwalls or pipes. Metal culverts have significant distortion and deflection in one section, significant corrosion or deep pitting.)
Comment: Culvert is generally in fair condition with areas of concrete deterioration and spalling with exposed reinforcing steel.



Elevation



Upstream



Downstream



Barrel # 2 typical.



Barrel # 1 typical.



Typical driving surface.



Roadway



Right headwall concrete deterioration with efflorescence buildup.



Left head wall concrete deterioration with efflorescence buildup.



Wall # 2 Lt spalling with exposed reinforcing steel.

Maintenance Needs

Date Reported: 12/11/2023

Priority: C - Important

Type of Work: Approach Leveling/Maintenance

Status: Open

Component: Approach

Deficiency Description

Approach Roadway-
The approach roadway has erosion along the north edge of the roadway.

Remarks



The approach roadway has erosion along the north edge of the roadway.

Maintenance Needs

Date Reported: 11/13/2013

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

R.C. Box Culvert -

There are 3 softball size spalls with exposed reinforcing steel in the center wall visible on the left end of barrel # 1 and one 2" shallow spall with exposed reinforcing steel at base of barrel # 1 exterior wall located 10' from left end.

The base of the left wing wall at barrel # 1 has a 5' long area of concrete deterioration with up to 4" of concrete section loss.

Remarks



Wall # 2 Lt spalling with exposed reinforcing steel.



The base of the left wing wall at barrel # 1 has a 5' long area of concrete deterioration with up to 4" of concrete section loss.



Spalling at the outlet end of the center wall that exposes reinforcing steel.

Maintenance Needs

Date Reported: 11/13/2013

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

R.C. Box Culvert -

There is map cracking with efflorescence and soft deteriorated concrete in both headwalls. There is map cracking with heavy efflorescence and leaching with light scale in the top slab at the inlet and outlet ends of both barrels. There is medium abrasion in the bottom slab and in the base of walls. There is map cracking with efflorescence in the center wall at the outlet end of box.

Remarks



Barrel # 1 top slab, left side-Mapcracking with efflorescence.



Barrel # 2 top slab cracking with efflorescence.



Barrel # 2 map cracking with efflorescence on the outlet side (typical for both barrels at the outlet and inlet sides)

Maintenance Needs

Date Reported: 12/11/2023

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

Deficiency Description

Channel-

The outlet end of culvert has drift that is causing streambed material to accumulate and localized scour adjacent to the structure.

Remarks



The outlet end of culvert has drift that is causing streambed material to accumulate and localized scour adjacent to the structure.



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Location: 2.6 MI SW JCT SH 303 & 45

Team Lead: Eric West, Inspection Date: 12/11/2023

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	



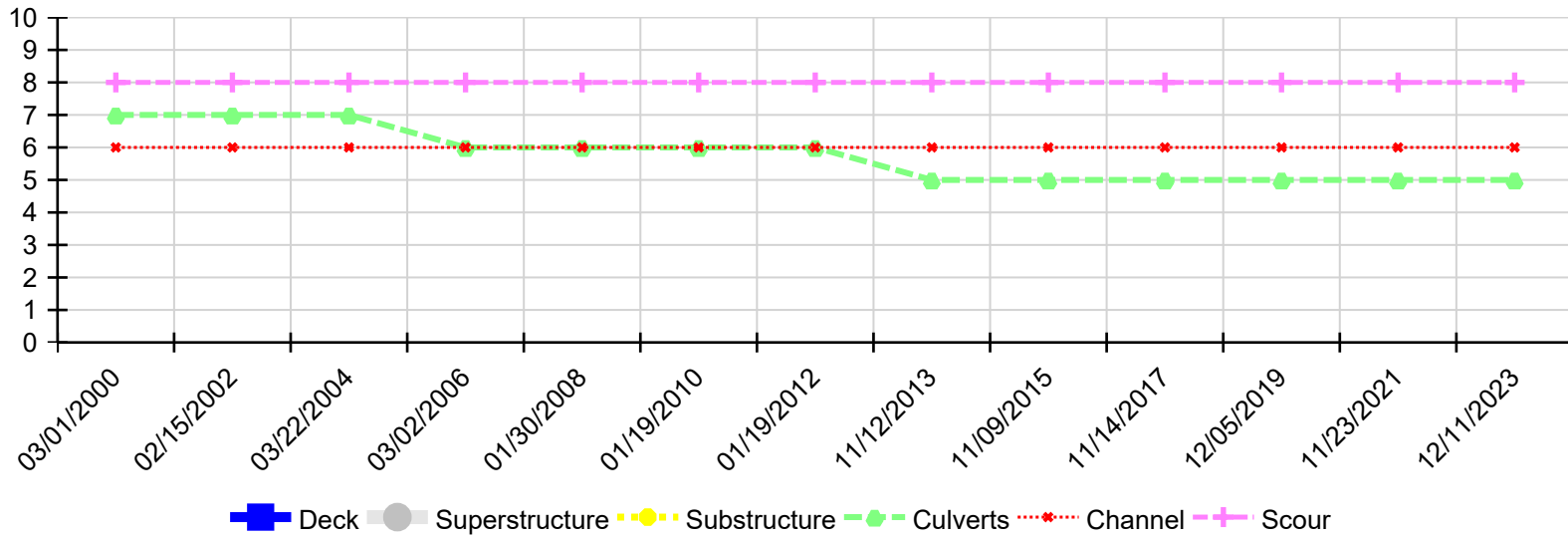
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SH 45-Wash. Co. over Creek

Location: 2.6 MI SW JCT SH 303 & 45

Team Lead: Eric West, Inspection Date: 12/11/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
12/11/2023	N	N	N	5	6	8
11/23/2021	N	N	N	5	6	8
12/05/2019	N	N	N	5	6	8
11/14/2017	N	N	N	5	6	8
11/09/2015	N	N	N	5	6	8
11/12/2013	N	N	N	5	6	8
01/19/2012	N	N	N	6	6	8
01/19/2010	N	N	N	6	6	8
01/30/2008	N	N	N	6	6	8
03/02/2006	N	N	N	6	6	8
03/22/2004	N	N	N	7	6	8
02/15/2002	N	N	N	7	6	8
03/01/2000	N	N	N	7	6	8