



Latitude:36.10409, Longitude:-94.00787

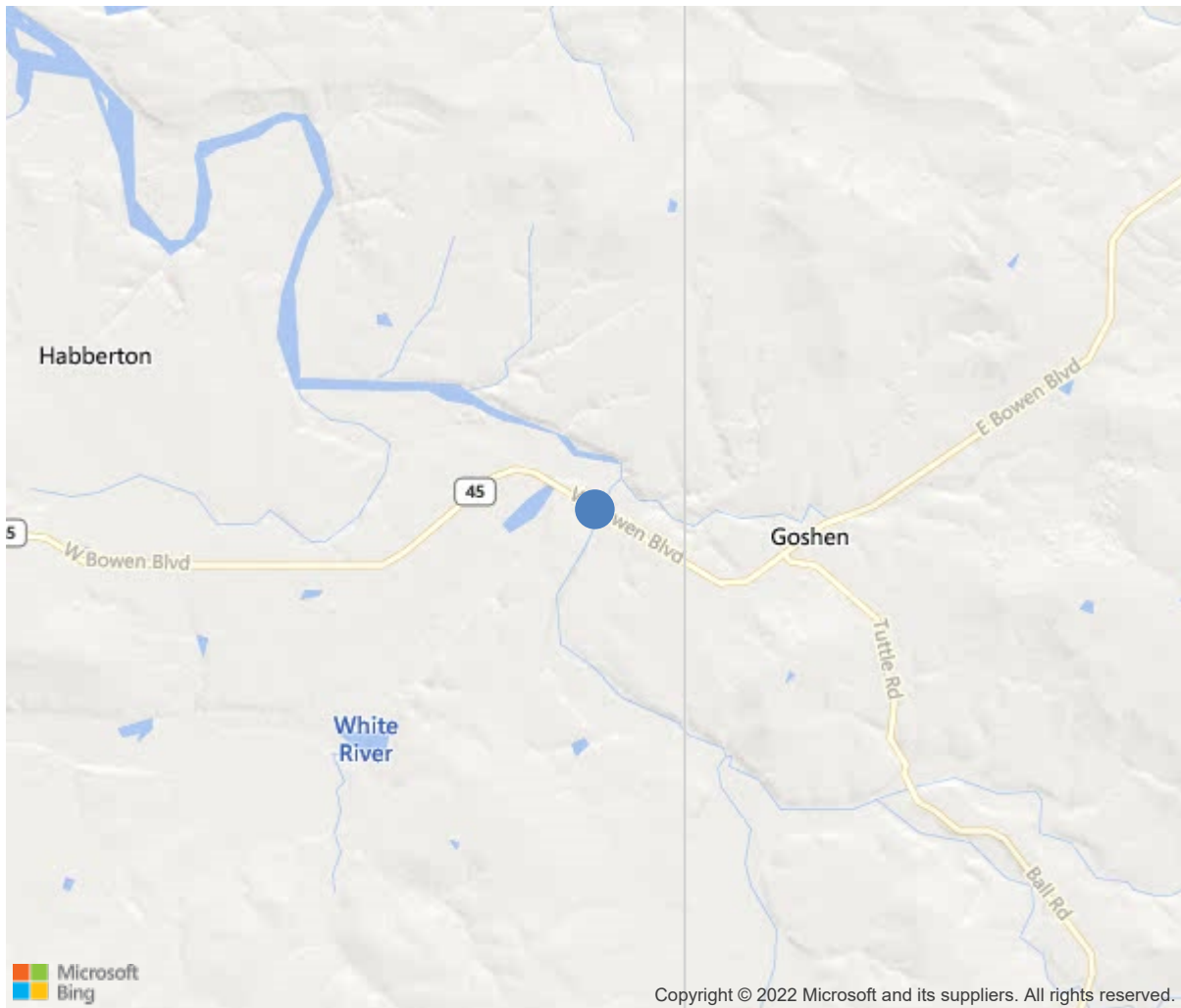
Route:45 Section:05 Log:9.8

Arnold Road ID:72x45x5xA, Arnold Log mile:9.788

District 04, Washington County

Owner: 1-State Highway Agency

9.8 MI E OF US 71 B



36.10409, -94.00787

Inspection Direction : W to E



**Bridge #06790**(Routine, Underwater type 2)

**State Highway 45 over Richland Creek**

**Location: 9.8 MI E OF US 71 B**

**Team Lead: Eric West Inspection Date: August 22, 2022**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06790
(5) Inventory Route	45
(2) Highway Agency District	04
(3) County Code	143-Washington County, Arkansas
(4) Place Code	0
(6) Features Intersected	Richland Creek
(7) Facility Carried	State Highway 45
(9) Location	9.8 MI E OF US 71 B
(11) Mile Point	9.8 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.10409
(17) Longitude	-94.00787
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	22
Material	2-Concrete 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	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	1-Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	2002
(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	6600
(30) Year of ADT	2018
(109) Truck ADT	4 %
GEOMETRIC DATA	
(48) Length of Maximum Span	79 ft
(49) Structure Length	351 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	39.4 ft
(52) Deck Width Out to Out	42.5 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	20 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40.7 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 water
(111) Pier Protection	5-None present but re-evaluation
(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	0-The inventory route is not part of
(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	7
(59) Superstructure	7
(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	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	8
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(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	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$
(96) Total Project Cost	\$
(97) Year of Improvement Cost Estimate	
(114) Future ADT	8017
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	08/2022		
(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.			

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	14918	11345	1304	2269	0
1120	Efflorescence/Rust Staining	SF	96	0	96	0	0
1130	Cracking (RC and Other)	SF	2737	0	468	2269	0
1190	Abrasion/Wear (PSC/RC)	SF	740	0	740	0	0
(12)							
-There are sealable longitudinal and transverse cracks visible on the driving surface of deck. -Longitudinal cracks are located on the Right side of Beam # 2, both sides of Beams # 3 and 4, and the Left side of Beam # 5. The longitudinal cracks appear to be for the entire length of structure. -There are transverse hairline cracks with efflorescence that appear to correspond with the joints in the parapet walls. -There is light wear in the wheel paths.							
107	Steel Open Girder/Beam	LF	2106	2106	0	0	0
515	Steel Protective Coating	SF	19438	19438	0	0	0
(107)							
-A588 Weathering Steel -There are painted areas adjacent to the abutments where maintenance forces have painted over graffiti in the past. -The superstructure has no apparent noteworthy deficiencies at this inspection. -No visible cracks in the steel beams.							
205	Reinforced Concrete Column	EA	8	4	4	0	0
1190	Abrasion/Wear (PSC/RC)	EA	4	0	4	0	0
(205)							
-The base of the substructure columns have light abrasion in the channel.							
215	Reinforced Concrete Abutment	LF	133	104	29	0	0
1120	Efflorescence/Rust Staining	LF	7	0	7	0	0
1130	Cracking (RC and Other)	LF	22	0	22	0	0
(215)							
-The abutments have minor vertical hairline shrinkage cracks with light efflorescence in the face of both backwalls. -Abutment # 1 & 2 have transverse cracks in the top of the backwall visible from the driving surface of the deck.							
220	Reinforced Concrete Pile Cap/Footing	LF	32	32	0	0	0
(220)							
-Bents # 3 & 4 have the top of the footings exposed.							
234	Reinforced Concrete Pier Cap	LF	173	155	18	0	0
1130	Cracking (RC and Other)	LF	18	0	18	0	0
(234)							
-Bent caps have hairline vertical cracks.							



**Bridge #06790**(Routine, Underwater type 2)

## State Highway 45 over Richland Creek

**Location: 9.8 MI E OF US 71 B**

**Team Lead:** Eric West, **Inspection Date:** August 22, 2022

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
300	Strip Seal Expansion Joint	LF	90	45	45	0	0
2350	Debris Impaction	LF	45	0	45	0	0
(300)							
-Deck joint seals are in place and appear to be functioning as intended.							
-Joint seals have debris impaction in the gutter lines.							
310	Elastomeric Bearing	EA	36	32	0	4	0
1000	Corrosion	EA	3	0	0	3	0
1020	Connection	EA	1	0	0	1	0
(310)							
-Bent # 1, Beam # 3 has one missing anchor bolt nut.							
-Abutment # 1 bearing #1 & 6 have active corrosion on the masonry plate.							
-Abutment # 2 bearing # 1 has active corrosion with pack rust in the masonry plate.							
331	Reinforced Concrete Bridge Railing	LF	702	564	138	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1130	Cracking (RC and Other)	LF	136	0	136	0	0
(331)							
-There are vertical hairline cracks at variable spacing in both parapet walls.							
-There is hairline map cracking in random locations.							
-There are a couple of golf ball size spalls with no exposed reinforcing at the East end of the structure.							



Roadway



Typical driving surface of the deck.





Span #1 typical undersurface of the deck.



Span #2 Typical undersurface of the deck.





Span #3 typical undersurface of the deck.



Span #4 typical undersurface of the deck.





Span #5 typical undersurface of the deck.



Abutment #1 bearing #1 active corrosion with pack rust.





Deteriorating saw joint sealant.



Abutment #1 strip seal.





Abutment #2 strip seal.

## Maintenance Needs

**Date Reported:** 08/23/2012  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Inspection Direction** W to E  
**Component:** 12 - Reinforced Concrete Deck

---

### Deficiency Description

Deck  
Sealable longitudinal cracks are visible on the driving surface of deck. Cracks are located on the Right side of Beam # 2, Both sides of Beams # 3 and # 4, and the Left side of Beam # 5. Longitudinal cracks appear to be for the entire length of structure. There are transverse hairline cracks that appear to correspond with the joints in the parapet walls.

### Remarks

---



Longitudinal crack in the Right lane of Span # 3.



Longitudinal crack in the Right lane of Span # 4.



**Date Reported:** 07/23/2014  
**Priority:** G - General/ Preventive maintenance  
**Type of Work:** Replace  
**Status:** Monitor  
**Inspection Direction** W to E  
**Component:** 310 - Elastomeric Bearing

---

**Deficiency Description**

Bearings  
Bent # 1, Beam # 3 anchor bolt nut is missing.

**Remarks**

---



Bent # 1, Beam # 3. Missing anchor bolt nut.



**Bridge #06790**(Routine, Underwater type 2)

**State Highway 45 over Richland Creek**

**Location: 9.8 MI E OF US 71 B**

**Team Lead:** Eric West **Inspection Date:** August 22, 2022

**Date Reported:** 08/24/2022

**Priority:** D- Routine

**Type of Work:** Clean

**Status:** Open

**Inspection Direction** W to E

**Component:** Deck

---

### Deficiency Description

R.C. Deck-

The deck gutters have dirt and debris accumulation that partially restricts the deck drains.

### Remarks

---



Dirt and debris accumulation in the gutters.





**Bridge #06790**(Routine, Underwater type 2)

**State Highway 45 over Richland Creek**

**Location: 9.8 MI E OF US 71 B**

**Team Lead:** Eric West **Inspection Date:** August 22, 2022

**Date Reported:** 08/24/2022  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Open  
**Inspection Direction** W to E  
**Component:** Approach

---

### Deficiency Description

Approach Guardrail-  
The approach guardrail has collision damage and loose anchorage at the end terminals.

### Remarks

---



Southwest approach guardrail collision damage.



Northeast approach guardrail fractured post.



**Bridge #06790**(Routine, Underwater type 2)

**State Highway 45 over Richland Creek**

**Location: 9.8 MI E OF US 71 B**

**Team Lead:** Eric West **Inspection Date:** August 22, 2022

**Date Reported:** 08/24/2022  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Open  
**Inspection Direction** W to E  
**Component:** 310 - Elastomeric Bearing

---

### Deficiency Description

Elastomeric Bearings-

The masonry plates on the exterior bearings at the abutments have active corrosion with areas of pack rust.

### Remarks

---



Abutment #1 bearing #1 active corrosion with pack rust.



**Bridge #06790**(Routine, Underwater type 2)

**State Highway 45 over Richland Creek**

**Location: 9.8 MI E OF US 71 B**

**Team Lead:** Eric West **Inspection Date:** August 22, 2022

### **Inspection Comments**

08/22/2022 - EJW & JPW - Routine and Underwater Type II Inspection conducted on this date.

07/17/2018 - JCJ & TJL - Type 2 Underwater Inspection - Wading and probing along with visual observation during low and clear water conditions indicate that the top of Bents # 3 & 4 footings are exposed. Footings appear to be well keyed into a solid rock channel with no apparent scour problems at this inspection.