



Latitude:36.28340, Longitude:-92.53692

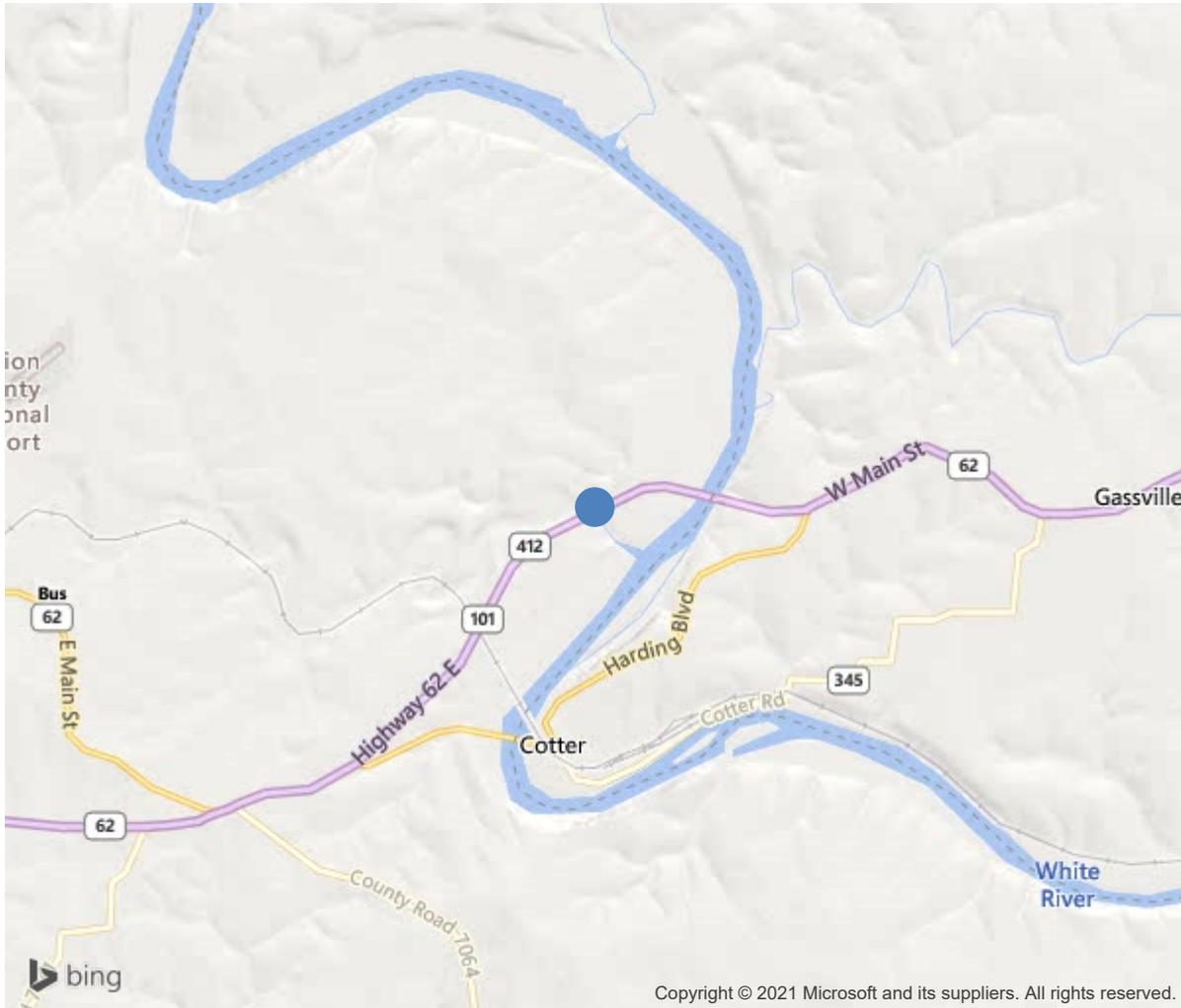
Route:62 Section:09 Log:10.21

Arnold Road ID:45x62x9xA, Arnold Log mile:9.969

District 09, Marion County

Owner: 1-State Highway Agency

11.36 MI EAST OF SH 14



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36.28340, -92.53692



Bridge #06058(Routine)
US 62/412 Marion over FALLEN ASH CR
Location: 11.36 MI EAST OF SH 14

Team Lead: Benjamin Smith Inspection Date: March 04, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06058
(5) Inventory Route	62
(2) Highway Agency District	09
(3) County Code	89-Marion County, Arkansas
(4) Place Code	0
(6) Features Intersected	FALLEN ASH CR
(7) Facility Carried	US 62/412 Marion
(9) Location	11.36 MI EAST OF SH 14
(11) Mile Point	10.21 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000062090
(16) Latitude	36.2834
(17) Longitude	-92.53692
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4-Steel 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	3
(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	1988
(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	10000
(30) Year of ADT	2014
(109) Truck ADT	13 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	104 ft
(49) Structure Length	274 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	44 ft
(52) Deck Width Out to Out	46.8 ft
(32) Approach Roadway Width (W/Shoulders)	44 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	44.9 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	1
(26) Functional Class	2-Rural Principal Arterial - Oth
(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	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	3
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	7
(68) Deck Geometry	6
(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	8-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	11754
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	03/2020
(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



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12823	7699	5124	0	0
1120	Efflorescence/Rust Staining	SF	325	0	325	0	0
1130	Cracking (RC and Other)	SF	415	0	415	0	0
1190	Abrasion/Wear (PSC/RC)	SF	4384	0	4384	0	0
(12)							
Driving surface-							
The driving surface of the deck has a tined finish that is showing moderate wear in the wheel paths.							
All spans of the driving surface have unsealed transverse and longitudinal cracking in the driving lanes, the 10' shoulders have very little transverse cracking. No spalling or delamination was noted.							
Undersurface-							
all bays have sip forms. The sip forms have corrosion in span #2 in bays #4,5 over the first field splice, and bay #3 in span #3 has corrosion over the field splice.							
The left and right deck overhangs in all spans have transverse cracks with efflorescence avg. spacing is 4' apart.							
107	Steel Open Girder/Beam	LF	1632	1604	7	21	0
1000	Corrosion	LF	28	0	7	21	0
515	Steel Protective Coating	SF	18491	18412	0	14	65
3440	Effectiveness (Steel Protective Coatings)	SF	79	0	0	14	65
(107)							
Steel protective coating includes the diaphragms. The paint system is still very effective in non corroded areas. The paint has loss of gloss with no chalking to the touch.							
Span #1-							
Beam #1 has 1' of cs3 corrosion on the lower web and bottom flange at abutment #1.							
Beam #2 has 3' of cs3 corrosion on the top of the bottom flange at abutment #1.							
Beam #3 has 3' of cs3 corrosion on the top of the bottom flange at abutment #1, with some areas of cs2 corrosion.							
Beam #4 has 2' of cs3 corrosion on the top of the bottom flange at abutment #1, with some areas of cs2 corrosion.							
Beam #5 has 2' of cs3 corrosion on the web and bottom flange at abutment #1.							
Beam #6 has 1' of cs3 corrosion on the lower web and bottom flange at abutment #1.							
A cracked tack weld exists at the top of the #3 diaphragm connection in span #1 bay #5, also diaphragm 3, in bay #5.							
Span #2-							
A 1/8" wide gap exists on the bottom flange connection plate at the first field splice on beam #4 in span #2, due to not being completely tightened during construction. The beam #3 splice panel has cracked tack welds on the side of the spacer plate.							
Diaphragms #3 ,4 in span #2 have tack welds at the top of the web connection plate.							
Diaphragm # 4 in bay #4 has a crack in the tack weld at the top of the web connection plate.							
Span #3-							
Diaphragms #3,4 are welded at the top of the web connection #3 plate. Bay #3 diaphragm #3 has a cracked tack weld at the top of the web connection plate on the right hand side.							
Beams #1,2,3,4 all have 1' of cs3 corrosion on the top of the bottom flange at abutment #2 over the bearings.							
Beam #5 has 3' of cs3 corrosion on the top of the bottom flange at abutment #2.							
Beam #6 has 2' of cs3 corrosion on the top of the bottom flange at abutment #2.							
210	Reinforced Concrete Pier Wall	LF	24	24	0	0	0



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(210)							
The pier wall consists of R/C columns that are 12' wide each							
Pier wall #1- no deficiencies noted. Footings have cover with no evidence of scour.							
Pier wall #2- no deficiencies noted. Footings have cover with no evidence of scour							
215	Reinforced Concrete Abutment	LF	94	63	29	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	29	0	29	0	0
(215)							
Abutment #1- has 15' total of vertical hairline cracks in the bridge seat and back wall. Only 11' are quantifiable due to some cracks occupying the same footage. The bridge seat has debris build up due to missing compression joint seal. The top of the back wall in the driving lane has hairline cracking.							
Abutment #2- has 18' total of horizontal, vertical, and areas of map cracking with 2 areas of shallow spalling with no rebar exposed on either side of the abutment face near the bottom. The top of the back wall in the driving lane has hairline cracking.							
234	Reinforced Concrete Pier Cap	LF	88	55	32	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	32	0	32	0	0
(234)							
Pier cap #1- has 15 hairline vertical cracks that extend down from the top edge of the cap. The cap has a shallow spall on the right side of the pier cap on the span #1 side.							
Pier cap #2- has 17 hairline vertical cracks that extend down from the top edge of the cap.							
302	Compression Joint Seal	LF	94	0	0	10	84
2310	Leakage	LF	84	0	0	0	84
2350	Debris Impaction	LF	10	0	0	10	0
(302)							
Abutment #1 compression joint seal- the joint seal is completely missing at abutment #1 and is laying on the abutment embankment. The armoring plate has areas of pack rust on the vertical face.							
Abutment #2 compression joint seal- 33' of the seal is unattached and laying on the bridge seat. 14' of the seal at the centerline is in place, but has debris impaction. The armoring plate has areas of pack rust on the vertical face.							
311	Movable Bearing	EA	12	0	2	10	0
1000	Corrosion	EA	12	0	2	10	0
(311)							
Abutment #1 moveable bearings- bearings #2-5 have corrosion with flaking rust and minor section loss, bearings #1 and #6 have a light rust coating due to free flow of water at the joint seals and debris build up. Bearing #6 at abutment #1 has the outer anchor bolt missing due to corrosion.							
Abutment #2 moveable bearings- all 6 have corrosion with flaking rust and minor section loss due to leaking joint seals and debris build up.							



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
313	Fixed Bearing	EA	12	12	0	0	0
(313)	<p>Fixed bearings at pier #1- no deficiencies noted. All paint is fully effective.</p> <p>Fixed bearings at pier #2-no deficiencies noted. All paint is fully effective.</p>						
321	Reinforced Concrete Approach Slab	SF	2311	2152	159	0	0
1130	Cracking (RC and Other)	SF	159	0	159	0	0
(321)	<p>Abutment #1 approach slab- has 164' of transverse and longitudinal cracking, all but 22' of cracks have been sealed with epoxy.</p> <p>Abutment #2 approach slab-has 137' of transverse and longitudinal unsealed cracking.</p>						
331	Reinforced Concrete Bridge Railing	LF	548	199	30	319	0
1090	Exposed Rebar	LF	319	0	0	319	0
1130	Cracking (RC and Other)	LF	30	0	30	0	0
(331)	<p>Both sides of the parapet wall have shallow spalling with exposed shallow rebar that has been painted over..</p> <p>Right side bridge parapet wall has 162' of exposed rebar that has been painted over. It has 12' of hairline vertical cracking at random locations.</p> <p>Left side bridge parapet wall has 157' of exposed rebar that has been painted over. It has 18' of hairline vertical cracking at random locations.</p>						



Bearing and joint seal condition at abutment 2.



Bearing condition pier 2. Typical.



Cracked upper diaphragm weld in bay 5 in span 2 at diaphragm 4 ahead of pier 1. Unchanged since last inspection.



Cracked tack welds on beam 3 in span 2 at the first splice panel.



Sip corrosion in bay 5 of span 2.



Efflorescence in the overhangs



Bearing condition at pier 1.



Typical beam end corrosion at abutment 1 from missing joint seal.



Typical view of the undersurface.



Bearing condition at abutment 1.



Upstream channel view.



Compression joint seal is completely missing at abutment 2 except for 10' at the center line that is debris impacted.



View of exposed rebar that has been painted on the parapet wall. Typical



Downstream channel view.



Typical view of driving surface.



View of abutment 1 approach slab.



Approach view in direction of log mile.



General view of abutment #1.



Abutment #1 beam #6 anchor bolt broken.



Abutment #1 compression joint seal condition.



Tack Weld detail at the top of the diaphragm connections. Typical of all diaphragm connections at all locations. Only the #2,3 diaphragms are welded at the top in span #1.



Sip corrosion in span #2 bay #5 over the first field splice area.



Typical paint condition. Loss of gloss with no chalking.



Compression joint seal on the abutment #1 embankment.



Moveable bearing condition at abutment #2. Typical of all 6 bearings.



Typical hairline cracking in the pier caps.



Cracked tack weld at the top of the #3 diaphragm connection in span #1 bay #5. Typical also of diaphragm 3, in bay 5 and dia. 4 in bay #4 span #2,



Approach view in direction of log mile.



Upstream channel view.



View of build up on the bridge seat at abutment #2.



Abutment #2 compression joint seal condition.



Typical view of driving surface.



Typical view of piers.



Cracked tack weld at the bottom plate of the field splice in span #1 beam #5. Typical also of beam#4 in span #1.

Span #2- beam #5 also has a cracked tack weld at at the bottom connection plate of the second field splice.

Span #3- beam 4 also has a cracked tack weld at at the bottom connection plate of the first field splice.



Downstream channel view.



Corrosion on the bottom flange of beam #2 over abutment #1. Typical of beams 2-4.



General view of the undersurface.



Transverse efflorescence on the left and right deck overhangs.



Build up on the bridge seat at abutment #1 due to missing joint seal.



Possible vertical crack in the diaphragm connection plate at diaphragm #4 span #2, bay #3.



Fixed bearing condition at pier #2.



Fixed Bearing condition at pier #1. Typical of all 6 at this location.



1/8" gap on the bottom flange connection plate at the first field splice on beam #4 in span #2.
Due to not being completely tightened.



General view of abutment #2.



Moveable bearing condition at abutment #1. Typical of all 6 bearings at this location.



Spall on the right pier cap end of pier #1 on the span #1 side.



Elevation view. Log mile from left to right.

Maintenance Needs

Date Reported: 03/05/2012
Priority: D- Routine
Type of Work: None
Status: Assigned
Component:

Deficiency Description

Abutment #1 moveable bearings- bearings #2-5 have corrosion with flaking rust and minor section loss, bearings #1 and #6 have a light rust coating due to free flow of water at the joint seals and debris build up. Bearing #6 at abutment #1 has the outer anchor bolt missing due to corrosion.

Abutment #2 moveable bearings- all 6 bearings have corrosion with flaking rust and minor section loss due to leaking joint seals and debris build up.

The beam ends also have varying degrees of corrosion at abutments #1,2.

Remarks





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Date Reported: 03/05/2012
Priority: D- Routine
Type of Work: None
Status: Assigned
Component:

Deficiency Description

The driving surface of the deck has sealable transverse and longitudinal cracks in all spans.

Remarks

Date Reported: 03/10/2014
Priority: C - Important

Type of Work: None
Status: Monitor
Component:

Deficiency Description

Abutment #1- The compression joint seal is missing completely.

Abutment #2- 33' of the compression joint seal is unattached and laying on the bridge seat. 10' of the seal at the centerline is in place, but has debris impaction.

Remarks





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Inspection Comments

Structure is logged from SW to NE, and is accessible with a snooper only.