



Latitude:35.75641, Longitude:-94.47129

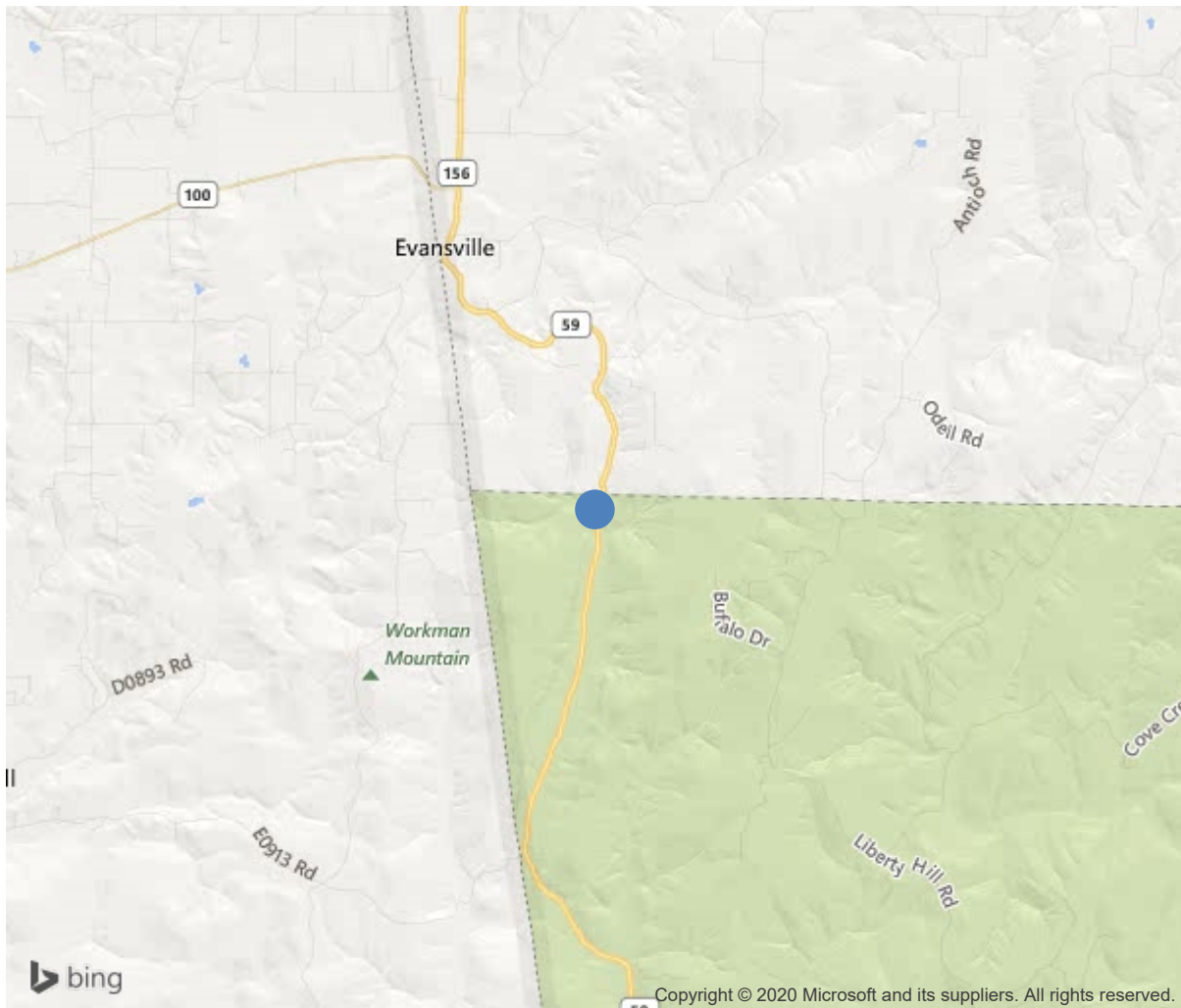
Route:59 Section:05 Log:0.18

Arnold Road ID:17x59x5xA, Arnold Log mile:0.2

District 04, Crawford County

Owner: 1-State Highway Agency

25.3 N JCT I 40



35.75641, -94.47129



Bridge #02815(Routine)
SH 59-Crawford Co. over Low Gap Hollow
Location: 25.3 N JCT I 40

Team Lead: James Barte Inspection Date: March 13, 2017

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02815
(5) Inventory Route	59
(2) Highway Agency District	04
(3) County Code	33-Crawford County, Arkansas
(4) Place Code	0
(6) Features Intersected	Low Gap Hollow
(7) Facility Carried	SH 59-Crawford Co.
(9) Location	25.3 N JCT I 40
(11) Mile Point	0.18 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000059050
(16) Latitude	35.75641
(17) Longitude	-94.47129
(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	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
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	1000
(30) Year of ADT	2018
(109) Truck ADT	17 %
(19) Bypass, Detour Length	40 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	18 ft
(49) Structure Length	90 ft
(50) Curb or Sidewalk Width	
Left	1.1 ft
Right	1.1 ft
(51) Bridge Roadway Width Curb to Curb	22 ft
(52) Deck Width Out to Out	24.2 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 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	23.6 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 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	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	4
(59) Superstructure	4
(60) Substructure	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(63) Operating Rating Method	2
(64) Operating Rating	
Type	2-Allowable Stress(AS)
Rating	41
(65) Inventory Rating Method	2-Allowable Stress(AS)
(66) Inventory Rating	
Type	5
Rating	25
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	3
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(72) Approach Roadway Alignment	6
(36) Traffic Safety Features	0000
A) Bridge Railings	0-Inspected feature does not meet cur
B) Transitions	0-Inspected feature does not meet cur
C) Approach Guardrail	0-Inspected feature does not meet cur
D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	Replacement of bridge or other
(76) Length of Structure Improvement	116 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 156
(96) Total Project Cost	\$ 433
(97) Year of Improvement Cost Estimate	2004
(114) Future ADT	1423
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	202003
(91) Frequency	24 Months
(92) Critical Feature Inspection	Done Freq. (Mon) Date
A: Fracture Critical Detail	No 24
B: Underwater Inspection	No 0
C: Other Special Inspection	Yes 0 201804

SUFFICIENCY RATING	30.5
STATUS (SD/FO/None)	Structurally Deficient



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Location: 25.3 N JCT I 40

Team Lead: James Barte, **Inspection Date:** March 13, 2017



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	1980	910	0	890	180
1080	Delamination/Spall/Patched Area	SF	180	0	0	0	180
1090	Exposed Rebar	SF	90	0	0	90	0
1130	Cracking (RC and Other)	SF	800	0	0	800	0
510	Wearing Surfaces	SF	1980	1980	0	0	0
3210	Delam/Spall/Patched Area/Pothole	SF	0	0	0	0	0
3220	Crack (Wearing Surface)	SF	0	0	0	0	0
(38)							
-Concrete slab span has soft deteriorated areas along full length of both Lt and Rt edges with heavy efflorescence. -Concrete section loss on the top of curb and around deck drains has exposed the reinforcing steel that has up to approximately 25% section loss. Maintenance forces have applied a coating of tar over the exposed reinforcing steel as a form of repair since the last inspection. -Undersurface of the deck has full length longitudinal cracks with areas of map cracking and efflorescence. -There is leaching visible from the undersurface of the deck. -Evidence of concrete deterioration under ACHM overlay that is map cracked with areas of patching.							
205	Reinforced Concrete Column	EA	8	2	6	0	0
1130	Cracking (RC and Other)	EA	3	0	3	0	0
1190	Abrasion/Wear (PSC/RC)	EA	3	0	3	0	0
(205)							
Left column of Bent 4 and both columns of Bent 5 have hairline map cracking with light efflorescence in the top of the columns adjacent to the cap. There is light abrasion at the base of the columns.							
215	Reinforced Concrete Abutment	LF	53	47	6	0	0
1130	Cracking (RC and Other)	LF	6	0	6	0	0
(215)							
-Map cracking with efflorescence located in left and right edges of abutments.							
234	Reinforced Concrete Pier Cap	LF	97	49	24	24	0
1080	Delamination/Spall/Patched Area	LF	24	0	0	24	0
1130	Cracking (RC and Other)	LF	24	0	24	0	0
(234)							
-The exterior edges of the substructure caps have soft and deteriorated concrete with map cracking and efflorescence. -End repairs made by maintenance forces in the past sound hollow or delaminated when sounded with a hammer.							
333	Other Bridge Railing	LF	180	67	90	17	6
1000	Corrosion	LF	90	0	90	0	0
1080	Delamination/Spall/Patched Area	LF	17	0	0	17	0
1220	Deterioration (Other)	LF	6	0	0	0	6
(333)							
-The metal portions of the bridge railing have areas with a light rust coating. -The concrete posts have soft deteriorated concrete with areas that have exposed reinforcing steel. -Numerous repairs by maintenance forces in the past have areas with efflorescence.							



The concrete posts have soft deteriorated concrete with areas that have exposed reinforcing steel.



Left column of Bent 4 and both columns of Bent 5 have hairline map cracking with light efflorescence in the top of the columns adjacent to the cap.



Inventory 1 looking South.



There is leaching visible from the undersurface of the deck.



Concrete section loss on the top of curb and around deck drains has exposed the reinforcing steel that has up to approximately 25% section loss. Maintenance forces have applied a coating of tar over the exposed reinforcing steel as a form of repair since the last inspection.



Evidence of concrete deterioration under ACHM overlay that is map cracked with areas of patching.



Concrete slab span has soft deteriorated areas along full length of both Lt and Rt edges with heavy efflorescence.



Map cracking with efflorescence located in left and right edges of abutments.



The exterior edges of the substructure caps have soft and deteriorated concrete with map cracking and efflorescence.



Concrete slab span has soft deteriorated areas along full length of both Lt and Rt edges with heavy efflorescence.



There is light abrasion at the base of the columns.



Drift accumulation at the inlet against Bents 2, 3 & 4.



Edges of deck have mapcracking with concrete deterioration and efflorescence. The undersurface of deck has mapcracking with efflorescence in all spans and spalling with concrete deterioration and exposed reinforcing steel around scuppers.



Undersurface of the deck has full length longitudinal cracks with areas of map cracking and efflorescence.



The metal portions of the bridge railing have areas with a light rust coating.



Edges of deck have mapcracking with concrete deterioration and efflorescence. The undersurface of deck has mapcracking with efflorescence in all spans and spalling with concrete deterioration and exposed reinforcing steel around scuppers.



The concrete bridge railing posts on the left side of structure has concrete deterioration and are beginning to spall at the bottom of posts.



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Maintenance Needs



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Inspection Comments

03/13/2017 JPB & SPC-Routine Inspection conducted on this date.

04/05/2016 JPB & RSM - Special Recurring inspection to monitor items 58 and 59 due to an NBI rating of "4". Careful observation of items 58 and 59 should be a priority during Routine inspections. Special Recurring inspection frequency changed to 24 months offset 12 months from the Routine inspection to achieve 12 month alternating inspections.

Special Recurring Inspection: The curbs and edges of the deck have soft deteriorated concrete with exposed reinforcing steel that has active corrosion with up to approximately 25% section loss. Large spalls with exposed reinforcing steel, leaching, map cracking with efflorescence and soft deteriorated concrete is visible from the undersurface of the deck. No significant changes since last inspection.

04082015 Underwater Inspection - Visual observation during dry conditions indicate that the footings have cover with no apparent scour problems at this inspection.

Special inspection added to this structure on a 12 month inspection frequency for the deck and superstructure. The asphalt driving surface is rutted with numerous patches. The curbs and edges of the deck have soft deteriorated concrete with exposed reinforcing steel that has active corrosion with up to approximately 25% section loss. Large spalls with exposed reinforcing steel, leaching, map cracking with efflorescence and soft deteriorated concrete is visible from the undersurface of the deck.
