



Latitude:35.69285, Longitude:-94.46786

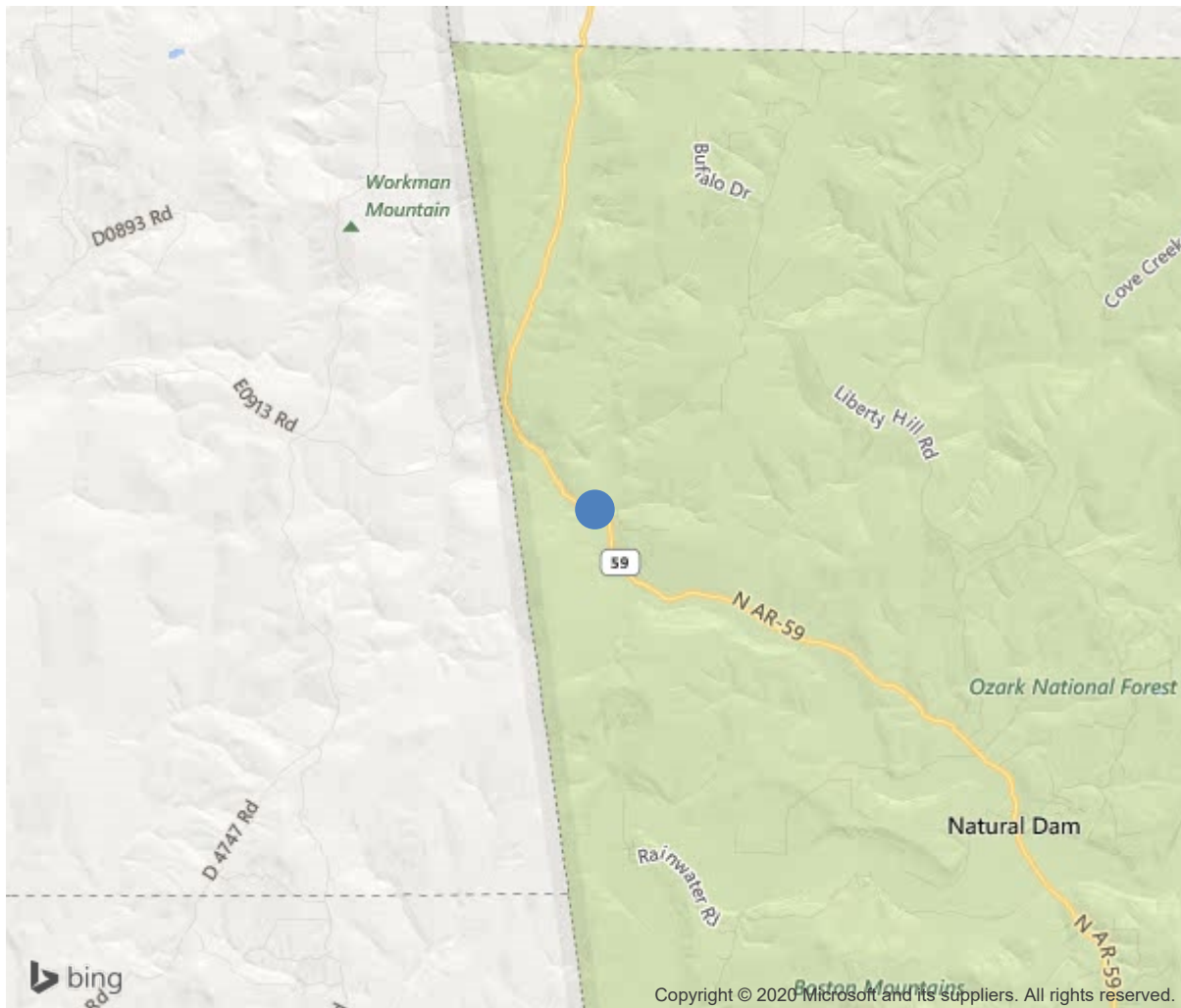
Route:59 Section:05 Log:26.8

Arnold Road ID:17x59x5xA, Arnold Log mile:5.075

District 04, Crawford County

Owner: 1-State Highway Agency

20.25 N JCT I 40



35.69285, -94.46786



**Bridge #02813(Routine)**  
**SH 59-Crawford Co. over Whizzen Hollow**  
**Location: 20.25 N JCT I 40**

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

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02813
(5) Inventory Route	59
(2) Highway Agency District	04
(3) County Code	33-Crawford County, Arkansas
(4) Place Code	0
(6) Features Intersected	Whizzen Hollow
(7) Facility Carried	SH 59-Crawford Co.
(9) Location	20.25 N JCT I 40
(11) Mile Point	26.8 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000059050
(16) Latitude	35.69285
(17) Longitude	-94.46786
(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	6
(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	108 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	22 ft
(52) Deck Width Out to Out	24 ft
(32) Approach Roadway Width (W/Shoulders)	30.8 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			5
(62) Culverts			N
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			41
(65) Inventory Rating Method			1-Load Factor(LF)
(66) Inventory Rating			
Type			6
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			7
(72) Approach Roadway Alignment			7
(36) Traffic Safety Features			0001
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			1-Inspected feature meets currently a
(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			135 ft
(94) Bridge Improvement Cost			\$ 0
(95) Roadway Improvement Cost			\$ 156
(96) Total Project Cost			\$ 472
(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	No	0	

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



**Location: 20.25 N JCT I 40**

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

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	2376	351	600	1424	1
1080	Delamination/Spall/Patched Area	SF	800	0	0	800	0
1090	Exposed Rebar	SF	24	0	0	24	0
1120	Efflorescence/Rust Staining	SF	600	0	0	600	0
1130	Cracking (RC and Other)	SF	601	0	600	0	1
510	Wearing Surfaces	SF	2376	23	2353	0	0
3220	Crack (Wearing Surface)	SF	2353	0	2353	0	0
(12)							
-Asphalt driving surface with map cracking. -Soft deteriorated concrete with exposed reinforcing steel in the curbs and in the undersurface of the deck adjacent to the deck drain on both sides of all spans. Exposed reinforcing steel in the curb appears to have active corrosion with up to approx. 25% section loss at this inspection. -Map and longitudinal cracking with efflorescence visible from the undersurface of deck. -Deteriorated concrete with efflorescence visible in the curbs and edge of deck. -Leaching and hairline map cracking with efflorescence is visible from the undersurface of the deck. -One shear crack visible in the edge of deck adjacent to the Lt side of Bent 1.							
205	Reinforced Concrete Column	EA	10	1	7	2	0
1080	Delamination/Spall/Patched Area	EA	2	0	2	0	0
1090	Exposed Rebar	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	6	0	4	2	0
(205)							
-Light abrasion typical at the base of columns. -Bent 3 has heavy abrasion, spalling, and concrete section loss at the base of columns. -Exposed reinforcing steel in the Lt Column of Bent 3 has been covered with caulking by maintenance forces as a type of repair.							
215	Reinforced Concrete Abutment	LF	54	48	6	0	0
1120	Efflorescence/Rust Staining	LF	6	0	6	0	0
(215)							
-Abutments have only minor insignificant deterioration at this inspection.							
234	Reinforced Concrete Pier Cap	LF	125	49	1	75	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
1090	Exposed Rebar	LF	6	0	0	6	0
1120	Efflorescence/Rust Staining	LF	65	0	0	65	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(234)							



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

[illegible]



Bent 3 has heavy abrasion, spalling, and concrete section loss at the base of columns.



Abutments have only minor insignificant deterioration at this inspection. Bent 7 Lt pictured.





The bent caps have spalling with exposed reinforcing steel in the exterior vertical faces in locations.



The lower portions of the intermediate bridge railing posts have concrete deterioration with map cracking and spalling that exposes the reinforcing steel.





The exterior edges of the deck/superstructure have chloride contamination with map cracking.



Bt 2, Sp1 over Col 2 has a baseball sized spall w/ exposed rebar w/ measurable sec. loss. Spall is currently covered with heavy efflorescence.





Reinforced concrete caps have heavy chloride contamination with soft and deteriorated concrete and map cracking.



Bt 3, Sp 3 over Col 2 has a softball sized spall w/ exposed rebar w/ initial sec. loss.





The concrete curbs on the left and right sides of structure have concrete deterioration with severe scaling that exposes reinforcing steel. Left side pictured.



The concrete curbs on the left and right sides of structure have concrete deterioration with severe scaling that exposes reinforcing steel. Right side pictured.





Bts 4, 5 & 6 ends of Cap on Rt side have concrete deterioration with map cracking, heavy efflorescence and exposed rebar with measurable section loss.



Inventory 1 looking South.





The southeast end post has Light collision damage that has broken the top of the post off exposing reinforcing steel.



Exposed reinforcing steel in the Lt Column of Bent 3 has been covered with caulking by maintenance forces as a type of repair.





There is minor collision damage to the left bridge rail.



Map and longitudinal cracking with efflorescence visible from the undersurface of deck.





The undersurface has spalling with exposed reinforcing steel adjacent to the deck drains.



Bt 4, Sp 3 over Col 2 has a small delam.





The deck has a shear type crack in Span 1 adjacent to the Lt side of the North abutment.



Asphalt driving surface with map cracking.



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## **Maintenance Needs**





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### **Inspection Comments**

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

Superstructure and substructure NBIS rating lowered to a 4 this inspection. Leaching, map cracking with soft deteriorated concrete with exposed reinforcing steel. Inspection frequency reduced to 12 months for Items number 59 and 60.

Underwater Inspection - Wading and probing during clear water conditions indicate that footings have cover with no apparent scour problems at this inspection.

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### **Substructure Notes**