Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough **Inspection Date:** October 10, 2018

Latitude:35.28849, Longitude:-92.12472

Route:36 Section:01 Log:21.44

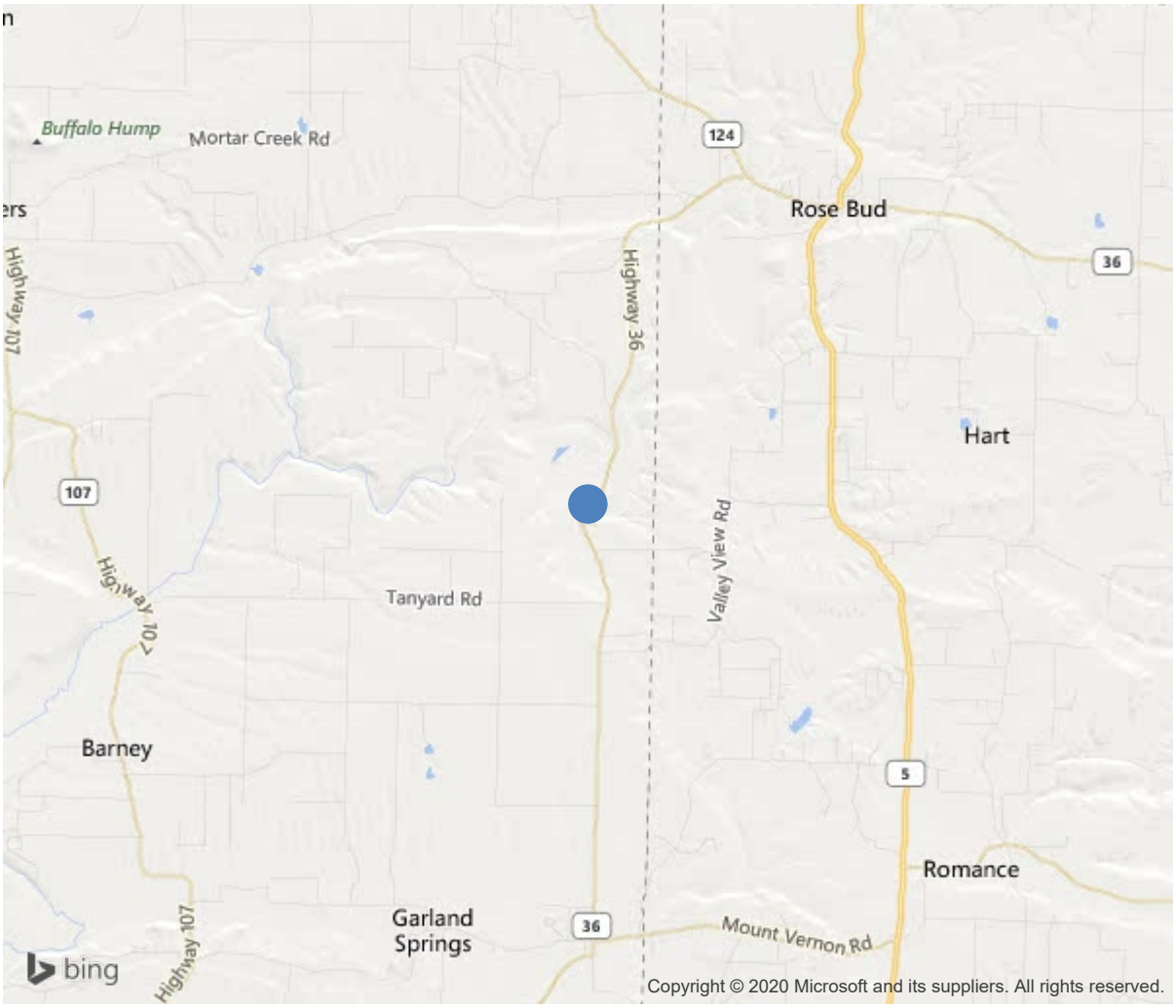
Arnold Road ID:23x36x1xA, Arnold Log mile:21.392

District 08, Faulkner County

Owner: 1-State Highway Agency

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough **Inspection Date:** October 10, 2018

4.0 MI N OF MT. VERNON



35.28849, -92.12472

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough **Inspection Date:** October 10, 2018

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03477
(5) Inventory Route	36
(2) Highway Agency District	08
(3) County Code	45-Faulkner County, Arkansas
(4) Place Code	0
(6) Features Intersected	Cadron Creek
(7) Facility Carried	SH 36
(9) Location	4.0 MI N OF MT. VERNON
(11) Mile Point	21.44 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	35.28849
(17) Longitude	-92.12472
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	

STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
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	1963
(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	860
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	20 mi

GEOMETRIC DATA	
(48) Length of Maximum Span	58 ft
(49) Structure Length	176 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	25.9 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	25.9 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	0
(26) Functional Class	7-Rural Major Collector
(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	5
(59) Superstructure	5
(60) Substructure	6
(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	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	50
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	30
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction

APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	4
(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	
(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	1088
(115) Year of Future ADT	2028

INSPECTIONS			
(90) Inspection Date			
(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	

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough, **Inspection Date:** October 10, 2018

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	4524	3719	528	277	0
1080	Delamination/Spall/Patched Area	SF	588	0	313	275	0
1090	Exposed Rebar	SF	2	0	0	2	0
1130	Cracking (RC and Other)	SF	215	0	215	0	0
(12)							
All Spans - Minor spalls, unsealed cracks and patched areas (some unsound).							
Underside: Span #1, between beams 1 & 2 and span #2, between beams 1 & 2, - forms left in place from full depth repairs. Spalls - span #2 spall with rebar exposed 2 sf. C3							
107	Steel Open Girder/Beam	LF	870	0	832	38	0
1000	Corrosion	LF	870	0	832	38	0
515	Steel Protective Coating	SF	6090	0	2090	3000	1000
3440	Effectiveness (Steel Protective Coatings)	SF	6090	0	2090	3000	1000
(107)							
Abut #1, beam #1 - rust in the web below haunch and sheet rust on bottom flange. 2 LF C3. Beam #4 – heavy rust and section loss around anchor bolt on bottom flange. 1 LF C3. Beam #5 has rust in the web below concrete haunch. Priority “C”							
Span #1, beam #5, mid span - heavy rust and section loss on bottom flange. 10 LF C3							
Pier #2, backside, beam #2 - bottom flange has moderate section loss. Flange has approx. 1/4” section loss. 2 LF C3, Priority “B”							
Pier #2, beam #5, ahead side – heavy rust and major section loss in lower part of wed and bottom flange. 3 LF C3, Priority “A”							
Pier #3, beam #1, backside - section loss on bottom flange and lower part of web. Major section loss (small holes) in web below concrete haunch. 4 LF C3. Priority “B”							
Pier #3, beam #2, backside - Major section lost (small hole) in web below concrete haunch. 1 LF C3 Pier #3, beam #4, backside - Major section lost (large hole) in web below concrete haunch and moderate section loss on bottom flange and lower part of web. 4 LF C3, Priority “B” Pier #3, beam #5, backside - complete section loss in the lower part of web and major section loss (flange has knife edge) on the bottom flange. 6 LF C3, Priority “A”							
Abut #4 - all beams have rust and minor section loss around anchor bolts. 5 LF C3, Priority “C”							
205	Reinforced Concrete Column	EA	4	1	3	0	0
1080	Delamination/Spall/Patched Area	EA	1	0	1	0	0
1130	Cracking (RC and Other)	EA	2	0	2	0	0
(205)							
Pier #2 - both have minor spalls. Column #1 - long moderate vertical crack. Pier #3, column #2 - moderate vertical crack.							
210	Reinforced Concrete Pier Wall	LF	34	32	0	2	0

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1090	Exposed Rebar	LF	2	0	0	2	0
(210)							
Web wall - partial height. Pier #2, left side - spall with rebar exposed. 2 LF C3							
215	Reinforced Concrete Abutment	LF	67	67	0	0	0
(215)							
Added wings to abutment quantity							
234	Reinforced Concrete Pier Cap	LF	52	36	16	0	0
1130	Cracking (RC and Other)	LF	16	0	16	0	0
(234)							
Pier #2, ahead side - moderate horizontal crack. 16 LF C2							
305	Assembly Joint without Seal	LF	96	96	0	0	0
311	Movable Bearing	EA	15	0	0	15	0
1000	Corrosion	EA	15	0	0	15	0
515	Steel Protective Coating	SF	45	0	10	15	20
3440	Effectiveness (Steel Protective Coatings)	SF	45	0	10	15	20
(311)							
Pier #2, backside - all have pack rust, B2 heavy pack rust. 5 ea. C3 Pier #3, backside - all have moderate to heavy pack rust and section loss. 5 ea. C3 Pier #3, ahead side - all have pack rust. 5 ea. C3							
313	Fixed Bearing	EA	15	0	5	10	0
1000	Corrosion	EA	15	0	5	10	0
515	Steel Protective Coating	SF	25	0	5	10	10
3440	Effectiveness (Steel Protective Coatings)	SF	25	0	5	10	10
(313)							
Abut #1 - all have minor pack rust. 5 ea. C3 Pier #2, ahead side - all have minor or moderate rust. 5 ea. C2 Abut #4 - all have pack rust. 5 ea. C3 Used 1 SF per bearing of PC for bearings at abutments.							
330	Metal Bridge Railing	LF	348	338	0	10	0
1020	Connection	LF	10	0	0	10	0
515	Steel Protective Coating	SF	1044	1044	0	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	0	0	0	0	0
(330)							

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough, **Inspection Date:** October 10, 2018

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Metal Rail attached to concrete post. Right side over pier #2 - bolt is missing that attaches rail to post and end of rail is loose. 9 bolts missing in other locations. Minor cracks in post.							

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough **Inspection Date:** October 10, 2018

Maintenance Needs

Bridge #03477(Routine)
SH 36 over Cadron Creek
Location: 4.0 MI N OF MT. VERNON
Team Lead: Gary Dorrough **Inspection Date:** October 10, 2018

Inspection Comments

.

Substructure Notes