



Latitude:36.02879, Longitude:-91.32438

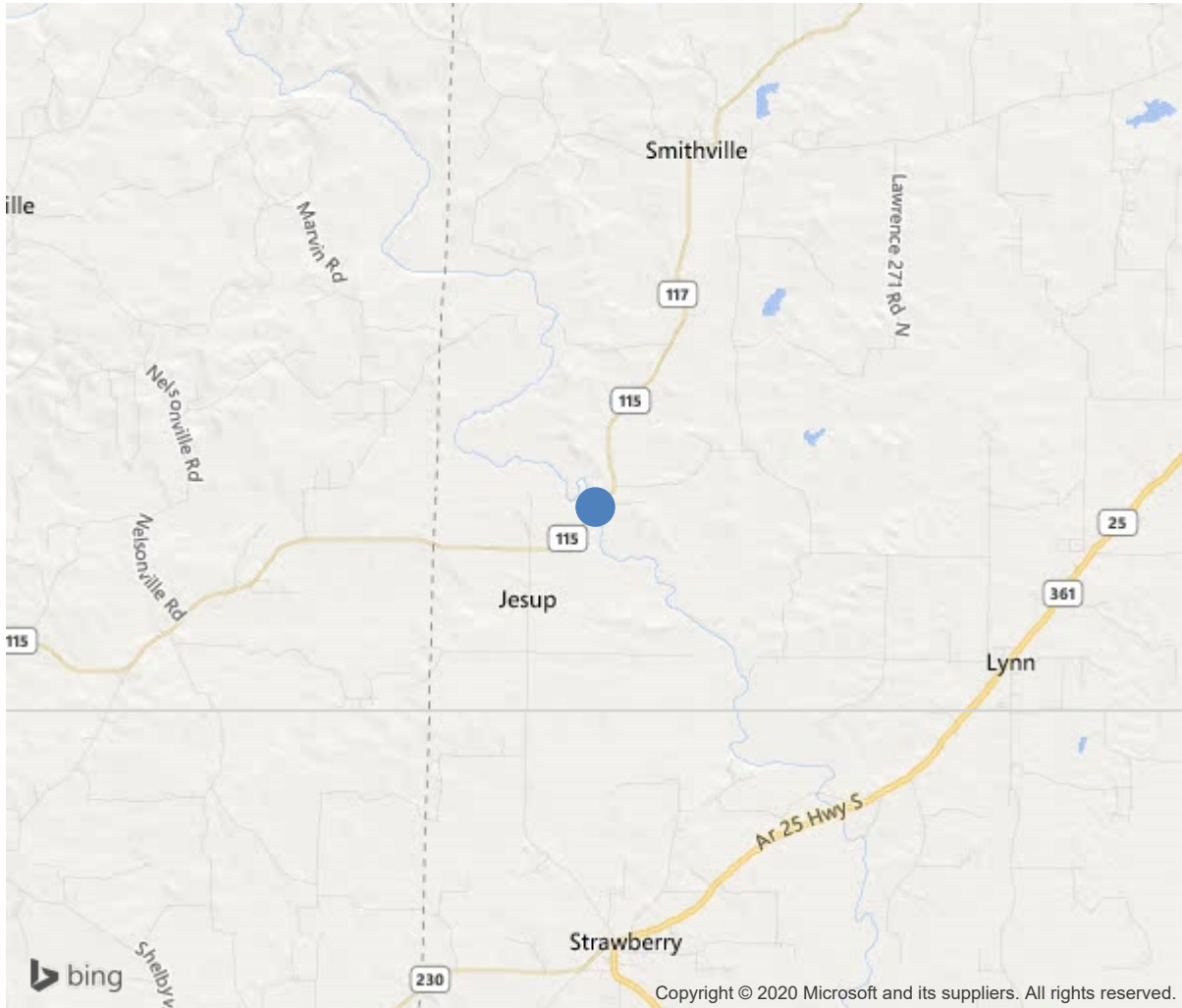
Route:115 Section:02 Log:16.14

Arnold Road ID:38x115x2xA, Arnold Log mile:16.045

District 10, Lawrence County

Owner: 1-State Highway Agency

4.0 MI S OF SMITHVILLE



36.02879, -91.32438



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: James Adams Inspection Date: May 22, 2019

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03253
(5) Inventory Route	115
(2) Highway Agency District	10
(3) County Code	75-Lawrence County, Arkansas
(4) Place Code	0
(6) Features Intersected	STRAWBERRY RIVER
(7) Facility Carried	SH 115-02-LM 16.14
(9) Location	4.0 MI S OF SMITHVILLE
(11) Mile Point	16.14 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.02879
(17) Longitude	-91.32438
(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	17
(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	1959
(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	1600
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	60 ft
(49) Structure Length	700 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.7 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	26.2 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	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		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			6
(59) Superstructure			5
(60) Substructure			6
(61) Channel & Channel Protection			6
(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			39
(65) Inventory Rating Method		1-Load Factor(LF)	
(66) Inventory Rating			
Type			17
Rating			23
(70) Bridge Posting		2-20.0 - 29.9 % below	
(41) Structure Open/Posted/Closed		P-Posted for load (may include o	
APPRAISAL			
(67) Structural Evaluation			5
(68) Deck Geometry			4
(69) Clearances, Vertical/Horizontal			N
(71) Waterway Adequacy			6
(72) Approach Roadway Alignment			8
(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		5-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			1250
(115) Year of Future ADT			2028
INSPECTIONS			
(90) Inspection Date			201905
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No	24	
B: Underwater Inspection	Yes	0	
C: Other Special Inspection	No	0	

SUFFICIENCY RATING	54.9
STATUS (SD/FO/None)	Not Deficient



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: Cory Shaw, Inspection Date: May 22, 2019

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	16992	15306	0	1686	0
1080	Delamination/Spall/Patched Area	SF	1314	0	0	1314	0
1090	Exposed Rebar	SF	22	0	0	22	0
1120	Efflorescence/Rust Staining	SF	280	0	0	280	0
1130	Cracking (RC and Other)	SF	70	0	0	70	0
510	Wearing Surfaces	SF	16752	15400	0	1352	0
3210	Delam/Spall/Patched Area/Pothole	SF	1352	0	0	1352	0
107	Steel Open Girder/Beam	LF	3490	2453	0	970	67
1000	Corrosion	LF	1037	0	0	970	67
515	Steel Protective Coating	SF	24978	16603	0	7178	1197
3440	Effectiveness (Steel Protective Coatings)	SF	8375	0	0	7178	1197
205	Reinforced Concrete Column	EA	4	3	0	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
215	Reinforced Concrete Abutment	LF	66	66	0	0	0
225	Steel Pile	EA	58	0	28	18	12
1000	Corrosion	EA	58	0	28	18	12
515	Steel Protective Coating	SF	6556	6556	0	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	0	0	0	0	0
234	Reinforced Concrete Pier Cap	LF	398	368	13	17	0
1080	Delamination/Spall/Patched Area	LF	7	0	0	7	0
1120	Efflorescence/Rust Staining	LF	10	0	0	10	0
1130	Cracking (RC and Other)	LF	13	0	13	0	0
304	Open Expansion Joint	LF	384	384	0	0	0
305	Assembly Joint without Seal	LF	48	48	0	0	0
311	Movable Bearing	EA	85	0	0	80	5
1000	Corrosion	EA	85	0	0	80	5
313	Fixed Bearing	EA	85	0	0	85	0
1000	Corrosion	EA	85	0	0	85	0
330	Metal Bridge Railing	LF	1396	1396	0	0	0
515	Steel Protective Coating	SF	4746	1899	0	2847	0
3440	Effectiveness (Steel Protective Coatings)	SF	2847	0	0	2847	0



Side



Deck



Span 9 bent 10 girder 2 2019



Roadway



Beginning posting



Span 5 bent 6 girder 2 2019



Span 17 bent 17 girder 4 2019



End posting



Span 2 soffit



Span 12 bent 12 bearing 2 2019



Span 16 bent 17 girder 5 2019



Bridge #03253(Routine)

SH 115-02-LM 16.14 over STRAWBERRY RIVER

Location: 4.0 MI S OF SMITHVILLE

Team Lead: James Adams **Inspection Date:** May 22, 2019

Maintenance Needs



Deck Notes

Inspected with snooper Underwater type 2 inspection performed late to optimize schedule. Spans 12,13 & 14 have several spalled areas with some exposed rebar. Wearing surface has several spalls and asphalt patches, especially spans 12,13 & 14. Soffit has several efflorescent cracks at left and right overhangs. Overhangs have a few minor spalls, some with exposed rebar. Bridge rail posts have a few cracks and spalls with exposed rebar.

Superstructure Notes

Ends of girders have rust with areas of section loss (1/8 in. - 1/4 in.), especially near concrete haunch, several have holes rusted through. Exterior girders have areas of section loss below drains. Exterior girder on right side of bridge has rust and areas of section loss at utility connections. Span 1 bent 1 girders 2 - 4 were T spliced in 2014. Span 1 girder 1 bent 1 has approximately 10 ft. of moderate to heavy section loss along bottom of web. Span 1 girder 2 bent 1 has a 3.5 in. x 1 in. hole in web below haunch. Span 1 girder 3 bent 1 has a 5 in. x 1 in. hole in web below haunch. Span 1 girder 4 bent 1 has 3 in. x 1 in. hole in web below haunch. Span 1 bent 1 girder 5 has 1 ft. on end with 1/8 in. section loss. Span 1 girders 2 & 4 bent 2 were T spliced in 2014. Span 1 girder 3 bent 2 has a 1.5 in. x 1 in. hole in web below haunch. Bottom of web has been T spliced. Span 1 girder 5 bent 2 has heavy section loss on end with a 9 in. x 4 in. hole in web below haunch. Span 2 girder 1 bent 2 has a 1 in. diameter hole 6 in. from end near haunch. Span 2 girder 3 bent 2 has a 2 ft. x up to 3 in. area of moderate section loss to bottom of web. Bottom flange has heavy section loss. Span 2 bent 2 girder 4 has a 5.5 in. x 1 in. hole in web below haunch. Span 2 girder 1 at bent 3 has a 1 in. diameter hole in web near haunch. Span 2 girder 3 bent 3 has a 3 in. x 1 in. hole in web below haunch. Span 3 girder 3 bent 3 has a 2 in. x 1/2 in. hole in web below haunch. Span 3 girder 1 bent 4 has a 2 in. x 1 in. hole in web below haunch. Span 3 girder 2 bent 4 has a 5 in. x 1 in. hole in web below haunch. Span 3 girder 2 bent 4 is floating, 1/8 in. gap between bearing plates. Span 3 bent 4 bearings 2 and 4 are each missing 1 anchor bolt. Span 3 girder 3 bent 4 has a 1.5 in. x 1/2 in. hole in web below haunch. Span 4 girder 2 bent 5 has a 1/2 in. diameter hole in web below haunch. Bottom of web has a 1/2 in. hole 5 in. from end of girder. Span 4 girder 3 bent 5 has a 2 in. x 1/2 in. hole in web below haunch. Span 4 girder 4 bent 5 has 1 ft. of moderate section loss along bottom of web. Bottom flange has heavy section loss. Span 5 girder 2 bent 5 has a 1/2 in. hole in web below haunch. Span 5 girder 2 bent 6 has a 7 in. x 1 in. hole in bottom of web 4.5 in. from end of girder, see 2019 photo. Span 6 girder 1 bent 6 has a 1/2 in. diameter hole in web below haunch. Span 6 girder 3 bent 6



Bridge #03253(Routine)

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Location: 4.0 MI S OF SMITHVILLE

Team Lead: James Adams Inspection Date: May 22, 2019

has a pin hole in web below haunch.Span 6 girder 4 bent 6
bottom flange has heavy section loss.Span 6 girder 1 bent 7
has a 2 in. x 1 in. hole in web below haunch.Span 6 girder 2 bent 7
has a 1 in. diameter hole in web below haunch and 1.5 ft. of heavy section loss
along bottom flange.Span 6 girders 3 &
4 bent 7 have plates welded over holes
in web below haunch.Span 7 girder 2 bent 7 has plates welded over hole in web
below haunch.Span 7 girder 3 bent 7
has a 2 in. x 1 in. hole in web below haunch.Span 7 girder 5 bent 7
has a 5 ½ in. x 1.5 in. hole in web below haunch.Span 7 girder 2 bent 8 was repaired with a T splice in 2014.
Bearing is floating with 1/8 in. gap at bearing.
Span 7 bent 8 bearing 2 has 1 anchor bolt missing.Span 7 girder 4 bent 8
has 1.5 ft. of heavy section loss along bottom of web. Bottom flange has
heavy section loss on right side of flange.Span 8 girder 1 bent 8
has a 2 in. diameter hole in web below haunch.Span 8 girder 1 bent 9
has a 1 in. diameter hole in web below haunch.Span 8 girder 2 bent 9
has plates welded over hole in web below haunch.Span 8 girder 3 bent 9
has a 2 in. diameter hole in web below haunch.Span 9 girders 2-4
bent 9 have plates welded over holes in web below haunch.Span 9 girder 5 bent 9
has section loss on bottom flange and bottom of web near utility connection.Span 9 girder 1 bent
10 has 4 ft. of section loss along bottom of web.Span 9 girder 2 bent
10 has plates welded over hole in web below haunch. Bottom of web has heavy
section loss with a 5 in. x 1 in. along bottom of web 4 in. from the end of
girder. See
2019 photo.Span 9 girder 3 bent
10 has a 1 in. diameter hole in web below haunch.Span 9 girder 5 bent
10 has a 7 in. x 1 in. hole in web below haunch.Span 10 girder 1 bent
10 has a 2 in. x 1 in. hole in web below haunch.Span 10 girder 2 bent
10 has a 3.5 in. x 1 in. hole in web below haunch.Span 10 girder 5 bent
10 has a 2.5 in. x 1 in. hole in web below haunch.Span 10 girder 2 bent
11 has a 3 in. x 1 in. hole in web below haunch.Span 10 girder 4 bent
11 has plates welded over hole in web below haunch.Span 11 girders 2-4
bent 11 have plates welded over holes in web below haunch.Span 11 girder 4 bent
11 has section loss along bottom of web. Bottom flange has heavy section loss
for 6 in. near bearing on both sides.Span 11 girder 1 bent
12 has a 2 in. x 1 in. hole in web below haunch.Span 11 girder 3 bent
12 has plates welded over hole in web below haunch.Span 11 girder 4 bent
12 has a 4 in. x 1 in. hole in web below haunch.Span 12 girder 2 bent
12 has a 2 in. x 1 in. hole in web below haunch.Span 12 girder 4 bent
12 has a 2.5 in. x 1 in. hole in web below haunch.
Span 12 girder 5 bent 12 has 8 ft. of
advanced section loss on bottom flange and bottom ¼ of web.Span 12 bent 12
bearings have advanced section loss and are frozen from corrosion. Rocker pins
have some lateral movement. Bearings are bouncing under traffic. Span 12 is a
1/2" lower at the road iron than Span 11.See 2019 photo.Span 13 girder 2 bent
13 has a 3.5 in. x 1 in. hole in web below haunch.Span 13 girder 3 bent
13 has a 2 in. x 1 in. hole in web below haunch.Span 13 bent 13
bearing 3 has cotter key rusted off or missing and sleeve on center of pin has
complete section loss.Span 13 bent 13 bearing
4 has 2 anchor bolts missing.Span 13 girder 5 bent
13 has 5 in. hole in web below haunch. End of web has section loss with some
beginning to knife edge and out of plane bending. Bottom flange has section
loss and is beginning to knife edge.Span 14 girder 2 bent
14 has a 5 in. x 1.5 in. diameter hole in web below haunch. Bearing has 1
anchor bolt missing.Span 14 bearings 3
& 4 bent 14 have cotter keys rusted off or missing and sleeve on center of
pin has complete section loss.Span 14 girder 4 bent
15 has 3.5 ft. of advanced section loss to bottom of web.Span 14 girder 5 bent
15 has 7 ft. of advanced section loss to bottom of web and bottom flange.
Bottom flange is beginning to knife edge.Span 15 girder 3 bent
15 has a 2 in. x 1 in. hole in web below haunch.Span 15 girder 4 bent



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15 has a 3 in. x 1 in. hole in web below haunch.Span 15 girder 5 bent
15 has a 2 in. x 1 in. hole in web below haunch.Span 15 girder 3 bent
16 has a 4 in. x 1 in. hole in web below haunch.Span 15 girder 4 bent
16 has a ½ in. diameter hole in web near haunch. Span 16 girder 1 bent
16 has a 5 in. x 1 in. hole in web below haunch.Span 16 girder 4 bent
has a 5 in. x 1 in. hole in web below haunch.Span 16 girders 2 thru
5 bent 17 have approximately 6 ft. of advanced section loss at bottom flange
and bottom 6 in. of web. Bottom flanges have some beginning to knife edge.Span 16 girder 3 bent
17 has a 5.5 in. x 1 in. hole in web below haunch.Span 16 girder 4 bent
17 has a 4 in. x 1 in. hole in web below haunch. Bearing has 1 anchor bolt
missing.Span 16 girder 5 bent
17 has a 8 in. x 2 in. hole in web below haunch, web is beginning to buckle, see 2019 photo.Span 17 girder 4 bent
17 has a 6 in. x 1 in. hole in web below haunch and a 19 in. x 2 in. hole in
bottom of web 12 in. from end of girder. Bearing has 1 anchor bolt missing.Span 17 girder 5 bent
17 has a 8 in. x 1 in. hole in web below haunch.Span 17 girders 2-4
bent 18 were T spliced in 2014.

Span 17 girder 4 bent 18 has
a 2 in. x ½ in. hole in web at haunch.

Substructure Notes

Underwater Type 2 inspection report only performed 5-15-2019.Several concrete caps
have minor cracks.Bent 14 column 1 has several
small spalls with exposed rebar.Caps have heavy dirt
and debris buildup at bents 12, 13, 15, 16, and 17.