



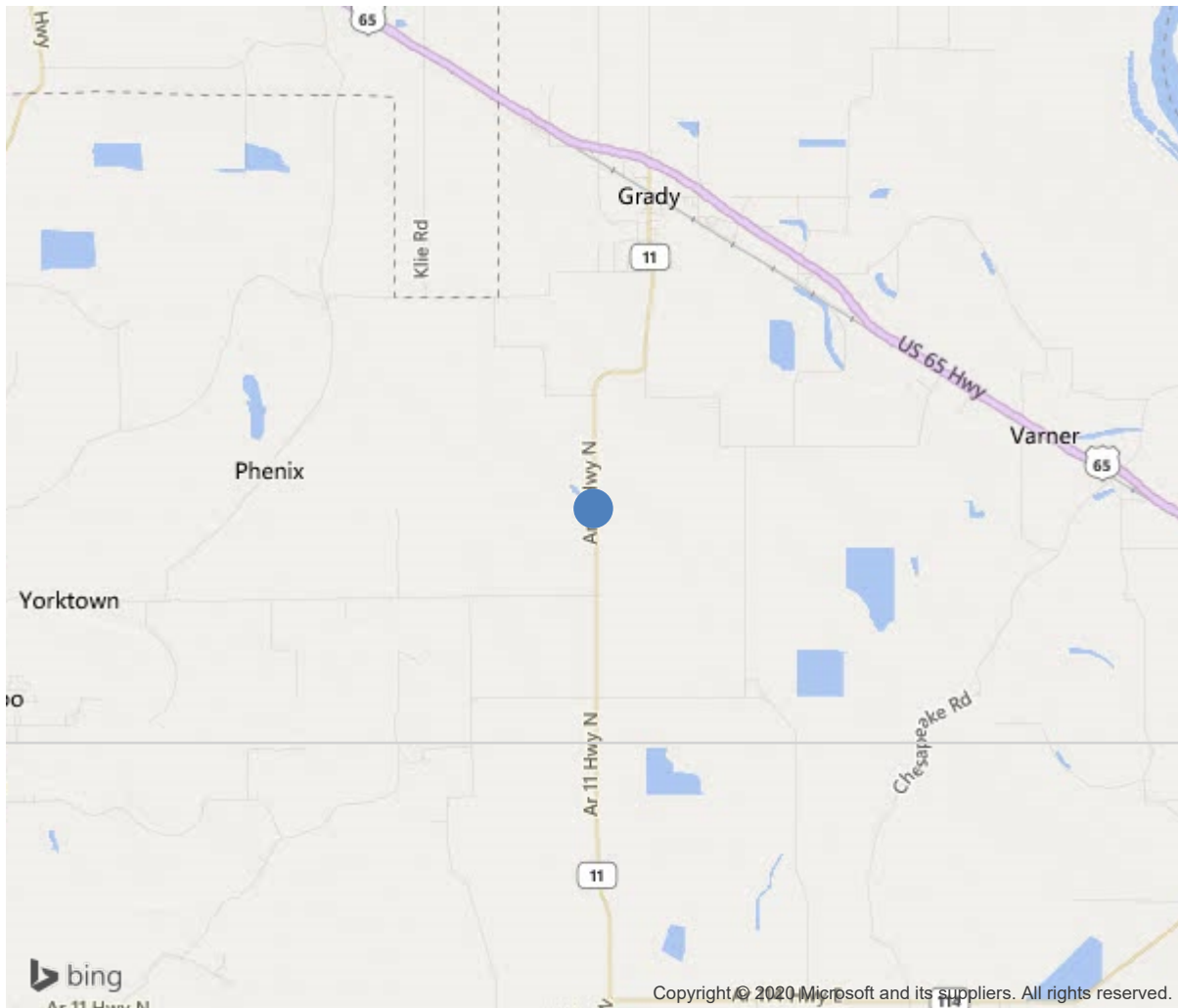
**Bridge #01229**(Routine)

**SH 11-03 LM 13.28 over Deep Bayou**

**Location: 4.90 Mi N SH 114**

**Team Lead:** Sharon Hooks **Inspection Date:** November 05, 2019

4.90 Mi N SH 114



34.03408, -91.70975



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	01229
(5) Inventory Route	11
(2) Highway Agency District	02
(3) County Code	79-Lincoln County, Arkansas
(4) Place Code	0
(6) Features Intersected	Deep Bayou
(7) Facility Carried	SH 11-03 LM 13.28
(9) Location	4.90 Mi N SH 114
(11) Mile Point	13.28 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.03408
(17) Longitude	-91.70975
(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	4
(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	1949
(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	412
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	32 ft
(49) Structure Length	126 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	26.6 ft
(52) Deck Width Out to Out	27.5 ft
(32) Approach Roadway Width (W/Shoulders)	24.9 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	26.6 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	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	6
(60) Substructure	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4-M 18 / H 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	54
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	4
Rating	32
(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	5
(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	Bridge rehabilitation because
(76) Length of Structure Improvement	126 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 155
(97) Year of Improvement Cost Estimate	1999
(114) Future ADT	708
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	201911
(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	79.5
STATUS (SD/FO/None)	Not Deficient



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	3465	3395	30	40	0
1080	Delamination/Spall/Patched Area	SF	8	0	0	8	0
1090	Exposed Rebar	SF	2	0	0	2	0
1130	Cracking (RC and Other)	SF	60	0	30	30	0
510	Wearing Surfaces	SF	3276	3111	30	135	0
3220	Crack (Wearing Surface)	SF	165	0	30	135	0
(12)							
Deck 27.5' by 126'							
Small spalls in decks asphalt overlay at bents. Span 1 near bent 1 left side has small spall with exposed rebar in side of slab.							
107	Steel Open Girder/Beam	LF	1134	876	186	72	0
1000	Corrosion	LF	222	0	150	72	0
1020	Connection	LF	36	0	36	0	0
515	Steel Protective Coating	SF	7031	0	6585	223	223
3440	Effectiveness (Steel Protective Coatings)	SF	446	0	0	223	223
3420	Peeling/Bubbling/Cracking	SF	2195	0	2195	0	0
3410	Chalking (Steel Protective Coatings)	SF	4390	0	4390	0	0
(107)							
Girders 9 each at 126'							
Coating: 6.2 square feet per linear feet of girder.							
Span 1 bent 1 girder 2,3,4,5,6 & 7 , span 1 bent 2 girders 2,3,4,5,6,7 & 8, span 2 bent 2 girders 2, 6 & 8, span 2 bent 3 girders 2,3,4,5,6,7 & 8, span 3 bent 3 girders 2,3,4,5,6,7 & 8, span 3 bent 4 girders 6 & 7, span 4 bent 4 girder 6, span 4 bent 5 girders 3,4,5,6,7 & 8 have been spliced in the past.							
Bent 2 span 2 girder 2 has heavy flaking rust with section loss and holes just ahead of bearing area. Repaired.							
Bent 4 span 3 girders 1,2,4 & 5 have heavy flaking rust with section loss just back from bearing area. Repaired.							
Bent 4 span 4 girders 4,5,6 & 7 have heavy flaking rust just ahead of bearing area. Repaired.							
Girders ends have scattered rust and flaking (minor to moderate section-loss in a few places) at bents. (2' each end / each girder).							
Some rust and minor section loss on outer girders under drains - mainly on top flange and top of bottom flange (72' total).							
Paint on girders has flaked off in numerous places and is dull and worn throughout.							
216	Timber Abutment	LF	60	54	6	0	0
1140	Decay/Section Loss	LF	6	0	6	0	0
(216)							
30' each timber back walls Bents 1 & 5.							
Bent 5 timber abutment weathered with minor decay to both ends.							
228	Timber Pile	EA	35	16	12	6	1
1020	Connection	EA	12	0	12	0	0
1140	Decay/Section Loss	EA	6	0	0	5	1
1150	Check/Shake	EA	1	0	0	1	0

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(228)							
7 each bent 1-5							
Bent 2 pile 1 & 7 , bent 3 pile 2,3,5,6 & 7 , bent 4 pile 1,2,3,4,5 & 7 replaced/spliced.							
Bent 2 pile 1 is hollow from cap down to splice.CS3							
Bent 2 pile 7 has very large check with hollow area above splice.							
Bent 3 pile 1 hollow area from cap down 3' CS 3							
Bent 3 pile 3 has very large checks above cross brace.CS 3 checking.							
Bent 3 pile 4 has hollow area 5' above ground line.CS 3							
Bent 3 pile 6 has decay with hollow area above lower cross bracing. CS3							
Bent 4 pile 5 has large checks with small hollow area near cap.CS3							
Bent 4 pile 7 has some decay under splice near ground line. CS3							
Connection							
Bent 2 pile 1 & 7							
Bent 3 pile 2,3,5 & 7							
Bent 4 pile 1,2,3,4,5 & 7							
235	Timber Pier Cap	LF	140	109	20	8	3
1020	Connection	LF	8	0	3	5	0
1140	Decay/Section Loss	LF	13	0	7	3	3
1150	Check/Shake	LF	10	0	10	0	0
(235)							
28' each bents 1-5							
Bent 1 cap has splice near right end.							
Bent 2 cap has splice with sub-cap near center line.							
Bent 3 cap has splice with sub-cap under pile 2 and splice between pile 6 and 7.							
Bent 4 cap spliced between pile 1 & 2 and 6 & 7.							
Bent 5 cap has splice between left end.							
Bent 5 left: Cap and splice board in outer 3' are rotten with some minor crushing.							
Bent 5 right: Cap is rotten with deterioration on left end with signs of crushing to outer 2'.							
All caps has some checks with minor decay near ends.							
304	Open Expansion Joint	LF	83	0	0	83	0
2350	Debris Impaction	LF	83	0	0	83	0
(304)							
Open Joints Bents 2-4 / 27.5' each.							
All joints have debris impaction from asphalt overlay.							
330	Metal Bridge Railing	LF	252	252	0	0	0
515	Steel Protective Coating	SF	630	0	630	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	630	0	630	0	0
(330)							
126' each side.							
Coating: 2.5 square feet per linear feet of railing.							
A few scattered scratches and some light surface rust with primer showing through in various places.							



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## **Maintenance Needs**



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### **Inspection Comments**

Beginning of structure toward US 425, Star City, South End.2-15-2007, Dropping UW inspection due to sub-str. elements are not continuously submerged. Durations of high water events occur.NBI Items #60 and #61 will represent all elements that occasionally stand in water. RLW.Changed LM from 13.361 to 13.28 per straight line from Tech Services dated 11/09. TEH 8-3-2011

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