



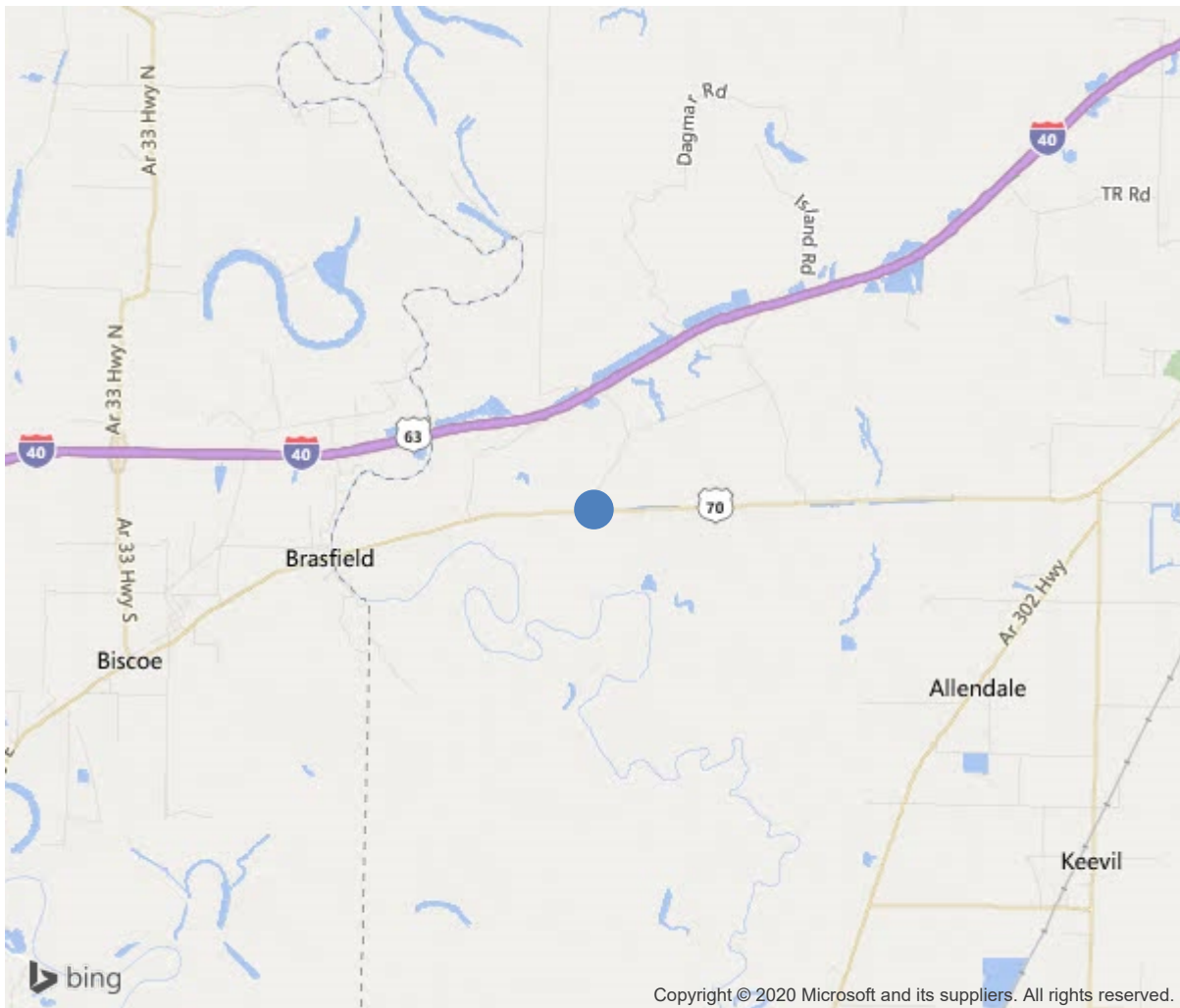
Bridge #01106(Routine)

Us-70/Sec-17/L2.65 over Cache River Relief

Location: 2.65 Mi E Prairie Co Line

Team Lead: Joel Davis Inspection Date: May 20, 2019

2.65 Mi E Prairie Co Line



34.83776, -91.33136



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	01106
(5) Inventory Route	70
(2) Highway Agency District	01
(3) County Code	95-Monroe County, Arkansas
(4) Place Code	0
(6) Features Intersected	Cache River Relief
(7) Facility Carried	Us-70/Sec-17/L2.65
(9) Location	2.65 Mi E Prairie Co Line
(11) Mile Point	2.65 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.83776
(17) Longitude	-91.33136
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1-Concrete
Type	4-Tee beam
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	9
(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	1930
(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	1100
(30) Year of ADT	2014
(109) Truck ADT	19 %
(19) Bypass, Detour Length	4 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	34 ft
(49) Structure Length	307 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	26.9 ft
(52) Deck Width Out to Out	30 ft
(32) Approach Roadway Width (W/Shoulders)	36.1 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	27.9 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		1-The inventory route is part of the	
(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		2-Bridge is eligible for the NRHP.	
CONDITION			
(58) Deck			6
(59) Superstructure			6
(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			48
(65) Inventory Rating Method		1-Load Factor(LF)	
(66) Inventory Rating			
Type			9
Rating			29
(70) Bridge Posting		5-Equal to or above legal loads	
(41) Structure Open/Posted/Closed		A-Open, no restriction	
APPRAISAL			
(67) Structural Evaluation			6
(68) Deck Geometry			4
(69) Clearances, Vertical/Horizontal			N
(71) Waterway Adequacy			8
(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			1167
(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	

Team Lead: Joel Davis, **Inspection Date:** May 20, 2019

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	9210	9080	25	105	0
1080	Delamination/Spall/Patched Area	SF	8	0	0	8	0
1090	Exposed Rebar	SF	31	0	0	31	0
1120	Efflorescence/Rust Staining	SF	91	0	25	66	0
510	Wearing Surfaces	SF	8289	6574	307	1408	0
3210	Delam/Spall/Patched Area/Pothole	SF	0	0	0	0	0
3230	Effectiveness (Wearing Surface)	SF	1228	0	0	1228	0
3220	Crack (Wearing Surface)	SF	487	0	307	180	0
(16)							
Soffit overhangs at joints are deteriorated with moderate efflorescence and some spalling with no rebar exposed. Deck soffit overhangs first half of bridge has several transverse cracks with moderate efflorescence. Deck soffit overhang span #5 near bent #5 both sides have a 1' spall with exposed rebar with 10% section loss. Deck soffit span #6 overhang left side has 6" piece of rebar exposed due to poor concrete coverage at 1/4 span. Deck soffit has transverse cracks spaced 3' to 4' apart a few with light efflorescence. Span #3 soffit between girders #4,5 has 4' area of spalls and delaminations at 1/4 span with no section loss. Span 5 soffit between girders #1,2 and #2,3, 4' delamination each. Span 5 between girders #4,5 , 5 small spalls with exposed rebar, no section loss 3' total. Span 7 soffit between girders #2,3 , 4' of delamination. Span 7 soffit between girders #1,2 1' spall with exposed rebar no section loss. Span 7 soffit between girders 4 and 5, 1' spall with exposed rebar no section loss. Span #8 left soffit overhang has 20' of exposed rebar with no section loss. Span #8 soffit between girders #4,5 has 1' spall at mid span with exposed rebar no section loss. Curbs have areas of approximately 40' total of scaling and deterioration. Gutters are full of dirt and debris with vegetation growing in them. Wearing surface is cracked transverse at all joints has several longitudinal cracks full length of bridge and has areas of scaling in wheel ruts. Soffit overhang span #2 left side has 1' of rebar exposed due to poor concrete coverage with no section loss.							
110	Reinforced Concrete Open Girder/Beam	LF	1535	1516	11	8	0
1080	Delamination/Spall/Patched Area	LF	10	0	10	0	0
1090	Exposed Rebar	LF	5	0	1	4	0
1130	Cracking (RC and Other)	LF	4	0	0	4	0
(110)							
All girders have hairline vertical cracks in sides spaced 1' to 2' apart. Bent #3 span #2 girder #1 left side has two shear cracks. Bent #3 span #2 girder #2 right side has 2' long delaminated crack at bottom. Bent #3 span #2 girder #3 right side has 1' delamination. Bent #4 span #4 girder #1 left side has 1' spall with exposed rebar no section loss. Bent #5 span #4 girder #1 left side has 1' delamination. Bent #5 span #4 girder #4 left side has 1' delamination. Bent #5 span #4 girder #5 right side has 1' Spall with exposed rebar 10% section loss. Bent #6 span #5 girder #1 left side has two shear cracks. Bent #7 span #6 girder #2 left side has 1' delamination.							

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent #7 span #6 girder #3 right side has 1' delamination. Bent #7 span #7 girder #4,5 left side has 1' spall with exposed rebar with 10% section loss. Bent #9 span #8 girder #1 left side has 2' delamination with spall exposed rebar with 10% section loss. Bent #9 span #8 girder #3 left side has 1' spall with exposed rebar and 10% section loss. Bent #9 span #8 girder #4 has 1' delamination on right side.							
215	Reinforced Concrete Abutment	LF	64	0	0	64	0
6000	Scour	LF	64	0	0	64	0
(215)							
Abutment #1,2 cap is undermined with exposed piles. Bent #1cap right end has corner spalled.							
227	Reinforced Concrete Pile	EA	43	34	5	4	0
1080	Delamination/Spall/Patched Area	EA	6	0	3	3	0
1090	Exposed Rebar	EA	1	0	0	1	0
1130	Cracking (RC and Other)	EA	2	0	2	0	0
(227)							
Bent #2 all piles have horizontal hairline crack 6" below cap. Bent #2 piles #3,4 are cracked and spalled. Bent #3 piles #1,5 are cracked and delaminated 1' below cap. Bent #5 pile #2 is cracked and delaminated 1' below cap. Bent #7 pile #5 is cracked and has 2' spall with exposed rebar with 5% section loss at top.							
234	Reinforced Concrete Pier Cap	LF	204	181	6	17	0
1080	Delamination/Spall/Patched Area	LF	8	0	6	2	0
1090	Exposed Rebar	LF	9	0	0	9	0
1130	Cracking (RC and Other)	LF	6	0	0	6	0
(234)							
All caps have hairline vertical cracks one under each girder. Bent #2,3 cap right end has 6" spall due to poor concrete coverage with 5% section loss. Bent #3 cap back face above pile #5 has 6" piece of rebar with 5% section loss and 1' of cracking. Bent #3 back face has horizontal crack between girders #2,3 four feet long 4" below top of cap. Bent #3 cap back face above pile four at top has 1' spall with delamination no rebar exposed. Bent #3 cap left side has 1' spall on top chord with exposed rebar with 5% section loss. Bent #3 cap back face above pile #2 has 6" spall with exposed rebar with 5% section loss. Bent #5 cap back face above pile #3,4 have 6" spall with exposed rebar no section loss. Bent #5 cap back face above pile #5 has 1' delamination with 6" spall with rebar exposed with 5% section loss. Bent #5 cap back face above pile #1 has 1' delamination. Bent #5 cap ahead face above pile #5 has 6" spall with exposed rebar no section loss. Bent #7 cap left end has 1' spall with exposed rebar no section loss and right end is delaminated. Bent #7 cap back face above pile #5 has 1' delamination with 6" spall exposed rebar with 10% section loss. Bent #9 cap back face is cracked and delaminated on top between piles #4,5 for 4'.							
305	Assembly Joint without Seal	LF	108	0	0	108	0
2350	Debris Impaction	LF	108	0	0	108	0
(305)							
Joints are impacted with asphalt and has little movement.							

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
311	Movable Bearing	EA	25	25	0	0	0
331	Reinforced Concrete Bridge Railing	LF	614	612	2	0	0
1090	Exposed Rebar	LF	2	0	2	0	0
(331)							
Span #6 left rail on top has two 1" spalls with exposed rebar no section loss one at start of span and one near end of span.							



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Maintenance Needs



Inspection Comments

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Deck Notes

Deck:Soffit overhangs at joints are deteriorated with moderate efflorescence and some spalling with no rebar exposed. Deck soffit overhangs first half of bridge has several transverse cracks with moderate efflorescence. Deck soffit overhang span #5 near bent #5 both sides have a 1' spall with exposed rebar with 10% section loss. Deck soffit span #6 overhang left side has 6" piece of rebar exposed due to poor concrete coverage at 1/4 span. Deck soffit has transverse cracks spaced 3' to 4' apart a few with light efflorescence. Span #3 soffit between girders #4,5 has 4' area of spalls and delaminations at 1/4 span with no section loss. Span 5 soffit between girders #1,2 and #2,3, 4' delamination each. Span 5 between girders #4,5 , 5 small spalls with exposed rebar, no section loss 3' total. Span 7 soffit between girders #2,3 , 4' of delamination. Span 7 soffit between girders #1,2 1' spall with exposed rebar no section loss. Span 7 soffit between girders 4 and 5, 1' spall with exposed rebar no section loss. Span #8 left soffit overhang has 20' of exposed rebar with no section loss. Span #8 soffit between girders #4,5 has 1' spall at mid span with exposed rebar no section loss. Curbs have areas of approximately 40' total of scaling and deterioration. Gutters are full of dirt and debris with vegetation growing in them. Wearing surface is cracked transverse at all joints has several longitudinal cracks full length of bridge and has areas of scaling in wheel ruts. Soffit overhang span #2 left side has 1' of rebar exposed due to poor concrete coverage with no section loss. Assembly joint:

Joints are impacted with asphalt and has little movement.

Bridge railings:

Span #6 left rail on top has two 1" spalls with exposed rebar no section loss one at start of span and one near end of span.

Superstructure Notes

Girders:All girders have hairline vertical cracks in sides spaced 1' to 2' apart. Bent #3 span #2 girder #1 left side has two shear cracks. Bent #3 span #2 girder #2 right side has 2' long delaminated crack at bottom. Bent #3 span #2 girder #3 right side has 1' delamination. Bent #4 span #4 girder #1 left side has 1' spall with exposed rebar no section loss. Bent #5 span #4 girder #1 left side has 1' delamination. Bent #5 span #4 girder #4 left side has 1' delamination. Bent #5 span #4 girder #5 right side has 1' Spall with exposed rebar 10% section loss. Bent #6 span #5 girder #1 left side has two shear cracks. Bent #7 span #6 girder #2 left side has 1' delamination. Bent #7 span #6 girder #3 right side has 1' delamination. Bent #7 span #7 girder #4,5 left side has 1' spall with exposed rebar with 10% section loss. Bent #9 span #8 girder #1 left side has 2' delamination with spall exposed rebar with 10% section loss. Bent #9 span #8 girder #3 left side has 1' spall with exposed rebar and 10% section loss. Bent #9 span #8 girder #4 has 1' delamination on right side.

Substructure Notes



Abutments:

Abutment #1,2 cap is undermined with exposed piles.
Bent #cap right end has corner spalled.

RC piles:

Bent #2 all piles have horizontal hairline crack 6" below cap.
Bent #2 piles #3,4 are cracked and spalled.
Bent #3 piles #1,5 are cracked and delaminated 1' below cap.
Bent #5 pile #2 is cracked and delaminated 1' below cap.
Bent #7 pile #5 is cracked and has 2' spall with exposed rebar with 5% section loss at top.

RC caps:

All caps have hairline vertical cracks one under each girder.
Bent #2,3 cap right end has 6" spall due to poor concrete coverage with 5% section loss.
Bent #3 cap back face above pile #5 has 6" piece of rebar with 5% section loss and 1' of cracking.
Bent #3 back face has horizontal crack between girders #2,3 four feet long 4" below top of cap.
Bent #3 cap back face above pile four at top has 1' spall with delamination no rebar exposed.
Bent #3 cap left side has 1' spall on top chord with exposed rebar with 5% section loss.
Bent #3 cap back face above pile #2 has 6" spall with exposed rebar with 5% section loss.
Bent #5 cap back face above pile #3,4 have 6" spall with exposed rebar no section loss.
Bent #5 cap back face above pile #5 has 1' delamination with 6" spall with rebar exposed with 5% section loss.
Bent #5 cap back face above pile #1 has 1' delamination.
Bent #5 cap ahead face above pile #5 has 6" spall with exposed rebar no section loss.
Bent #7 cap left end has 1' spall with exposed rebar no section loss and right end is delaminated.
Bent #7 cap back face above pile #5 has 1' delamination with 6" spall exposed rebar with 10% section loss.
Bent #9 cap back face is cracked and delaminated on top between piles #4,5 for 4'.