



Latitude:35.34703, Longitude:-94.33810

Route:22 Section:01 Log:5.439

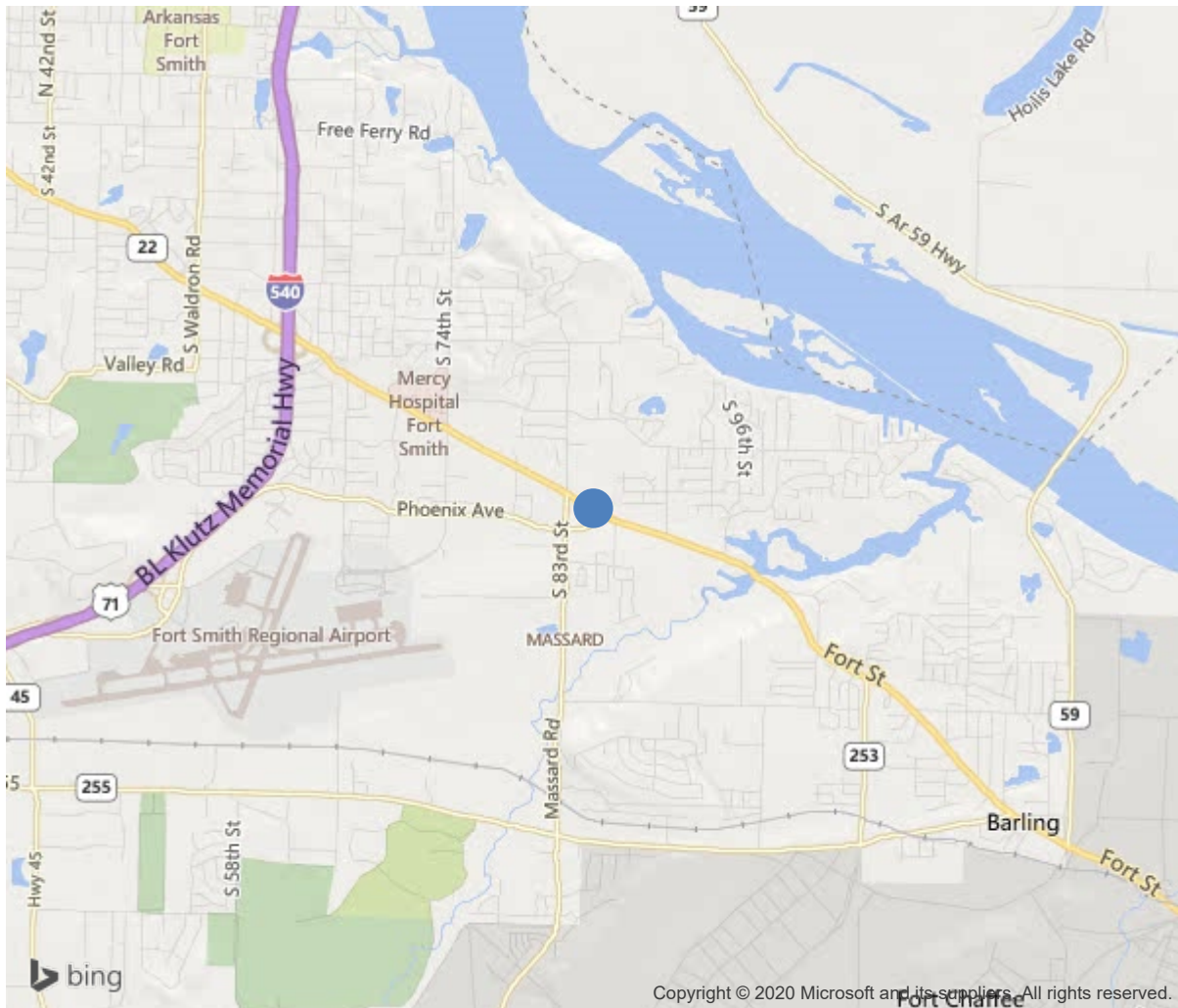
Arnold Road ID:65x22x1xA, Arnold Log mile:5.453

District 04, Sebastian County

Owner: 1-State Highway Agency

Place Code: 24060 - FORT SMITH

5.44 MI E JCT US 71



35.34703, -94.33810



Bridge #A0351 (Routine)
SH 22 Seb. Co. over Little Massard Creek
Location: 5.44 MI E JCT US 71
Team Lead: Eric West Inspection Date: July 23, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A0351
(5) Inventory Route	22
(2) Highway Agency District	04
(3) County Code	131-Sebastian County, Arkansas
(4) Place Code	24060
(6) Features Intersected	Little Massard Creek
(7) Facility Carried	SH 22 Seb. Co.
(9) Location	5.44 MI E JCT US 71
(11) Mile Point	5.439 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000022010
(16) Latitude	35.34703
(17) Longitude	-94.3381
(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	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	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1955
(106) Year Reconstructed	1974
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	5
Under	0
(29) Average Daily Traffic	20000
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	25 ft
(49) Structure Length	75 ft
(50) Curb or Sidewalk Width	
Left	4 ft
Right	4 ft
(51) Bridge Roadway Width Curb to Curb	49.9 ft
(52) Deck Width Out to Out	60 ft
(32) Approach Roadway Width (W/Shoulders)	58.1 ft
(33) Bridge Median	0-No median
(34) Skew	30 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	58.1 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	1
(26) Functional Class	14-Urban Other Principal 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	6
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	8
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5-MS 18 / HS 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	46
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	27
(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	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1111
A) Bridge Railings	1-Inspected feature meets currently a
B) Transitions	1-Inspected feature meets currently a
C) Approach Guardrail	1-Inspected feature meets currently a
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	101 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 353
(96) Total Project Cost	\$ 768
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	26358
(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



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SH 22 Seb. Co. over Little Massard Creek

Location: 5.44 MI E JCT US 71

Team Lead: Eric West, Inspection Date: July 23, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	4500	4178	270	52	0
1080	Delamination/Spall/Patched Area	SF	84	0	84	0	0
1090	Exposed Rebar	SF	4	0	0	4	0
1120	Efflorescence/Rust Staining	SF	92	0	44	48	0
1130	Cracking (RC and Other)	SF	142	0	142	0	0
510	Wearing Surfaces	SF	3732	545	2356	831	0
3220	Crack (Wearing Surface)	SF	3187	0	2356	831	0
(38)							
-Concrete slab has an asphalt overlay. The asphalt driving surface has map cracking and longitudinal cracks throughout. -The undersurface of the slab in all spans have several longitudinal cracks. There is one full length longitudinal crack with moderate efflorescence near centerline of structure. -Construction joints on the right and left sides of the structure where the bridge was widened has efflorescence visible with delaminated areas along the joint. -Undersurface of span #1 has a 4' x 4' area of scaling adjacent to the left construction joint at abutment #1 and along the right construction joint near bent #2. -There is one 6 inch spall with exposed reinforcing steel visible in the right edge of deck over bent # 3. Exposed reinforcing steel appears to have up to initial section loss. -Span #3 has spalling with exposed reinforcing steel adjacent to Abutment #2 along the construction widening joint. -There is light scale in the right sidewalk. -The undersurface of the right pedestrian sidewalk has a 24" delaminated area over bent #3. The left side has 2, 6" long pieces of exposed reinforcing steel. There are no significant changes apparent since the last inspection.							
205	Reinforced Concrete Column	EA	8	0	8	0	0
1080	Delamination/Spall/Patched Area	EA	2	0	2	0	0
1190	Abrasion/Wear (PSC/RC)	EA	6	0	6	0	0
(205)							
-Bent #3, column #1 has a 5" shallow spall with no exposed reinforcing steel at the base of column. -Bent #3, column #4 has a baseball sized spall and delaminated area located approximately 3' up from base on the ahead side. -Columns have light abrasion at the water elevation. -Wading and probing in low water conditions revealed that all footings have cover with no apparent scour problems at this inspection.							
215	Reinforced Concrete Abutment	LF	130	122	8	0	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(215)							
-Abutment #1 has two small spalls near the right end of the abutment. -The left widened portion of abutment #2 has shallow scrape marks that appear to be from the construction process.							
234	Reinforced Concrete Pier Cap	LF	115	90	19	6	0
1080	Delamination/Spall/Patched Area	LF	14	0	12	2	0

Team Lead: Eric West, **Inspection Date:** July 23, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1120	Efflorescence/Rust Staining	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	7	0	7	0	0
(234)							
-Bent #2 Span #1 cap has a 5' horizontal crack with efflorescence between columns #1 & 2.							
-Bent # 2 cap over column #3 has a delaminated area in upper portion of cap in bay #2 approximately 10' long and a 2' spall at the slab juncture.							
-The undersurface of the bent #3 cap has a shallow spall with exposed #9 wire in bay #3.							
330	Metal Bridge Railing	LF	150	149	1	0	0
1020	Connection	LF	1	0	1	0	0
(330)							
-The bridge railing has a loose connection on the Lt rail.							
331	Reinforced Concrete Bridge Railing	LF	150	114	36	0	0
1130	Cracking (RC and Other)	LF	36	0	36	0	0
(331)							
-The concrete portion of the bridge railing has short duration and full height vertical cracking at random locations.							



Roadway



Typical driving surface of the slab.



Typical undersurface of the deck.



Typical cracking on the driving surface of the slab.



Span #1 concrete cracking with efflorescence buildup.



Span # 3 cracking with efflorescence buildup.



Span #3 Rt spalling with exposed reinforcing steel on the undersurface of the slab.



Northeast embankment with erosion under the grouted rip rap.



Bent #2 concrete delamination's and spalling over column #3.



Bent #2 Lt concrete cracking with efflorescence buildup.

Maintenance Needs

Date Reported: 07/08/2014
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Deck

Deficiency Description

Superstructure -
The undersurface of the deck / superstructure in Spans 2 and 3 have spalls with exposed reinforcing steel.

Remarks



The undersurface of the right pedestrian sidewalk has a 24" delaminated area with spalling that exposes reinforcing steel over bent #3.



Span #2, left pedestrian sidewalk-Exposed reinforcing steel in undersurface.

Date Reported: 07/05/2016
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Substructure

Deficiency Description

Substructure -

The span #1 side of bent #2 has a 10' long delaminated area with a large spalled area in the upper portion of cap in bay #2.

Remarks



Bent #2 cap-Spalling / delaminated area in back face.



Span 1 side of Bent 2 cap. Left



Bent 2 cap repair

Date Reported: 07/05/2016
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Deck

Deficiency Description

Deck Joint Seals-

Stains and scale visible from the undersurface of the structure indicates that the deck joint sealant over the intermediate bents leak.

Remarks



Bent 3. Typical



Span #1 undersurface-Scaling adjacent to bent #2.



Staining due to leaking deck joints.



Span 1 deck soffit adjacent to Bent 2.



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Inspection Comments