



Latitude:34.78039, Longitude:-92.16421

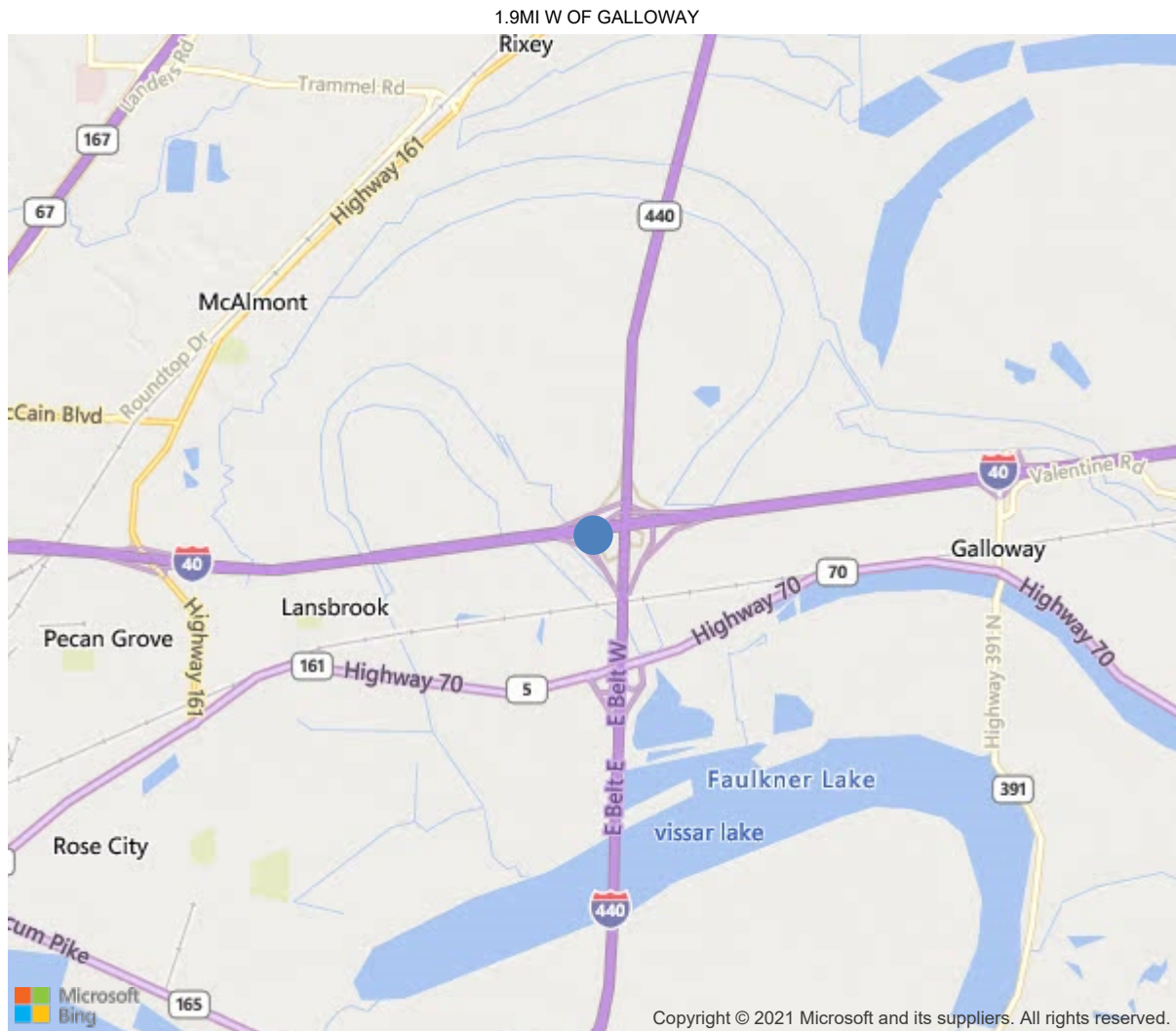
Route:440 Section:02 Log:10.39

Arnold Road ID:60x40x547xA, Arnold Log mile:0.403

District 06, Pulaski County

Owner: 1-State Highway Agency

Place Code: 47940 - NORTH LITTLE ROCK



34.78039, -92.16421



Bridge #05711(Routine)

SH 440 E-S Ramp over I-40 LOG 158.77

Location: 1.9MI W OF GALLOWAY

Team Lead: Chris Doggett Inspection Date: July 31, 2019

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05711
(5) Inventory Route	440
(2) Highway Agency District	06
(3) County Code	119-Pulaski County, Arkansas
(4) Place Code	47940
(6) Features Intersected	I-40 LOG 158.77
(7) Facility Carried	SH 440 E-S Ramp
(9) Location	1.9MI W OF GALLOWAY
(11) Mile Point	10.39 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000440020
(16) Latitude	34.78039
(17) Longitude	-92.16421
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4-Steel continuous
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	5
(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	1980
(106) Year Reconstructed	0
(42) Type of Service	61
On	6-Overpass structure at an interchange or secon
Under	1-Highway, with or without pedestrian
(28) Lane	
On	1
Under	5
(29) Average Daily Traffic	22000
(30) Year of ADT	2013
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	117 ft
(49) Structure Length	451 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	24.9 ft
(52) Deck Width Out to Out	27.8 ft
(32) Approach Roadway Width (W/Shoulders)	24.9 ft
(33) Bridge Median	0-No median
(34) Skew	35 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	15.67 ft
Ref:	
(55) Min Lat Underclear RT	30.1 ft
Ref:	
(56) Min Lat Underclear LT	28.6 ft
NAVIGATION DATA	
(38) Navigation Control	N-Not applicable, no waterway.
(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	12-Urban Principal Arterial - Oth
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	1 - 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	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	6
(59) Superstructure	4
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6-MS 18+Mod / HS 20+Mod
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	5
Rating	36
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	7
(69) Clearances, Vertical/Horizontal	4
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1-Inspected feature meets currently a
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	N-Bridge not over waterway.
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	12500
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			07/2019
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	Yes		07/2020
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

Team Lead: Chris Doggett, **Inspection Date:** July 31, 2019

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12578	1418	11151	9	0
1090	Exposed Rebar	SF	9	0	0	9	0
1130	Cracking (RC and Other)	SF	500	0	500	0	0
1190	Abrasion/Wear (PSC/RC)	SF	10651	0	10651	0	0
(12)							
Span 4 has a spall with exposed rebar. All spans have transverse and map cracks. 0.030 inch avg. Most of the travel lane has some surface abrasion.							
107	Steel Open Girder/Beam	LF	1347	1179	150	18	0
1000	Corrosion	LF	162	0	150	12	0
1010	Cracking	LF	3	0	0	3	0
7000	Damage	LF	3	0	0	3	0
515	Steel Protective Coating	SF	17391	0	12065	5171	155
3410	Chalking (Steel Protective Coatings)	SF	0	0	0	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	17391	0	12065	5171	155
(107)							
Fatigue cracks in top of welded connections of the diaphragms in girder 3 on span 3 at the first and second diaphragms at backside of bent 4 , and in girder 1 on span 4 at the 2nd diaphragm on the ahead side of bent 4, Girder 3 bottom of the fourth diaphragm on ahead side of bent 4. Traffic impact to girder 3 on span 4. Photo. No change since last inspection. The girders at joint seals have active rust with moderate pitting. All girders have areas of freckling rust on the web and flanges.							
205	Reinforced Concrete Column	EA	8	0	0	8	0
1130	Cracking (RC and Other)	EA	8	0	0	8	0
(205)							
All the columns have full height cracks on eight inch centers.							
215	Reinforced Concrete Abutment	LF	89	0	0	89	0
1080	Delamination/Spall/Patched Area	LF	28	0	0	28	0
1130	Cracking (RC and Other)	LF	61	0	0	61	0
(215)							
Bent 1 & 6 has map cracking along the entire face. Both abutments have spalls in the top of back walls.							
234	Reinforced Concrete Pier Cap	LF	110	71	12	27	0
1130	Cracking (RC and Other)	LF	39	0	12	27	0
(234)							
Bent 2 cap has map cracking the entire length of ahead and back face.							



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent 3, back side has scattered cracks. Bent 5 has scattered cracks on both sides and ends.							
302	Compression Joint Seal	LF	112	0	0	56	56
2310	Leakage	LF	111	0	0	55	56
2360	Adjacent Deck or Header	LF	1	0	0	1	0
(302)	Joint seals at bents 1,2 & 6 have lost bond or have fallen out allowing moisture and debris on bearings and beam ends.						
310	Elastomeric Bearing	EA	12	12	0	0	0
321	Reinforced Concrete Approach Slab	SF	1152	932	0	220	0
1130	Cracking (RC and Other)	SF	220	0	0	220	0
(321)	Diagonal and map cracks.						
331	Reinforced Concrete Bridge Railing	LF	904	768	136	0	0
1130	Cracking (RC and Other)	LF	136	0	136	0	0



Bent 6: the beam seat has map cracking through the entire face. Also, the beam seat has a large amount of dirt and vegetation a top of it



Crack



Top of back wall spalled



Bent 3, column 1: the column has numerous full height vertical cracks on 6" centers. All columns are in similar condition



Span 4, girder 3: damage due to vehicle impact to the lower flange.



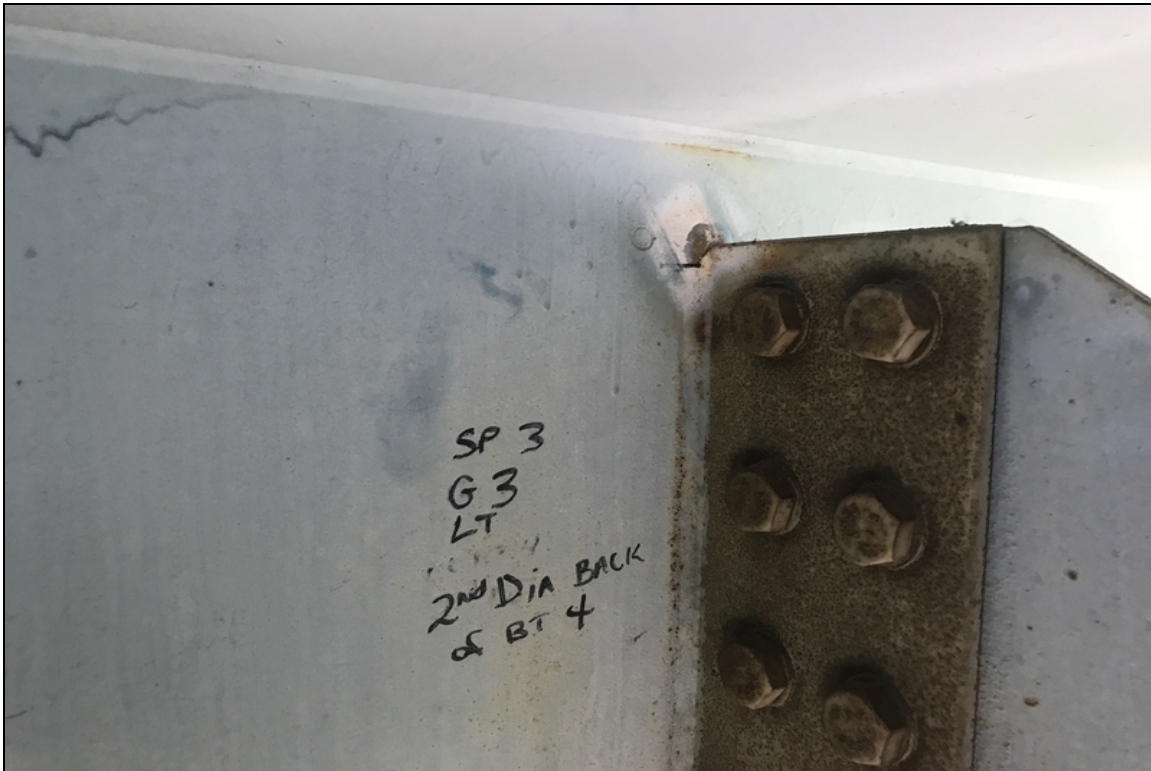
Span 4: spall in the deck surface



Deck view



4th diaphragm



Bent 2: left side of the compression joint has lost bond allowing water to flow through



A large amount of debris accumulating on deck



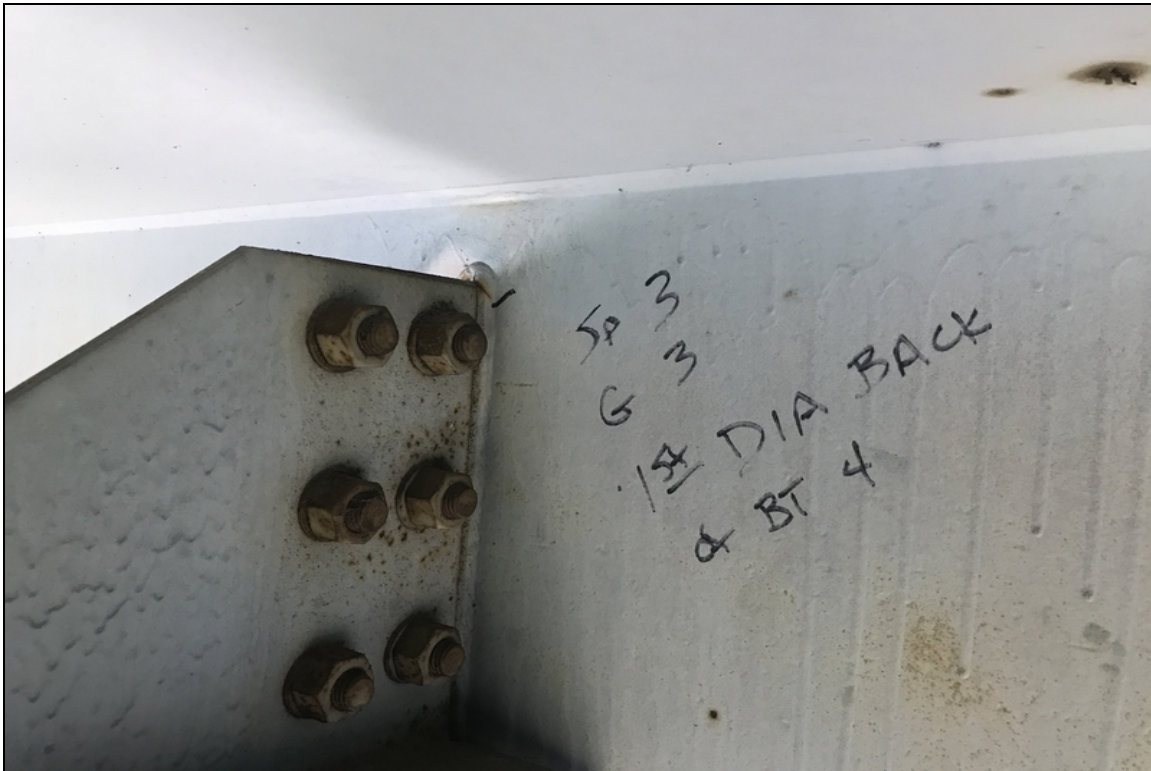
Ahead side of bent 2: the entire face of cap is map cracked



Span 5: large transverse crack



Span 4, girder 2, 2nd dia. Loose bolt at the top of diaphragm



No movement since last inspection



Soffit view



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Inspection Comments

AHTD job 60184, 21492 for layout.
Logged east bound.