



Latitude:34.37207, Longitude:-92.82284

Route:270 Section:07 Log:1.69

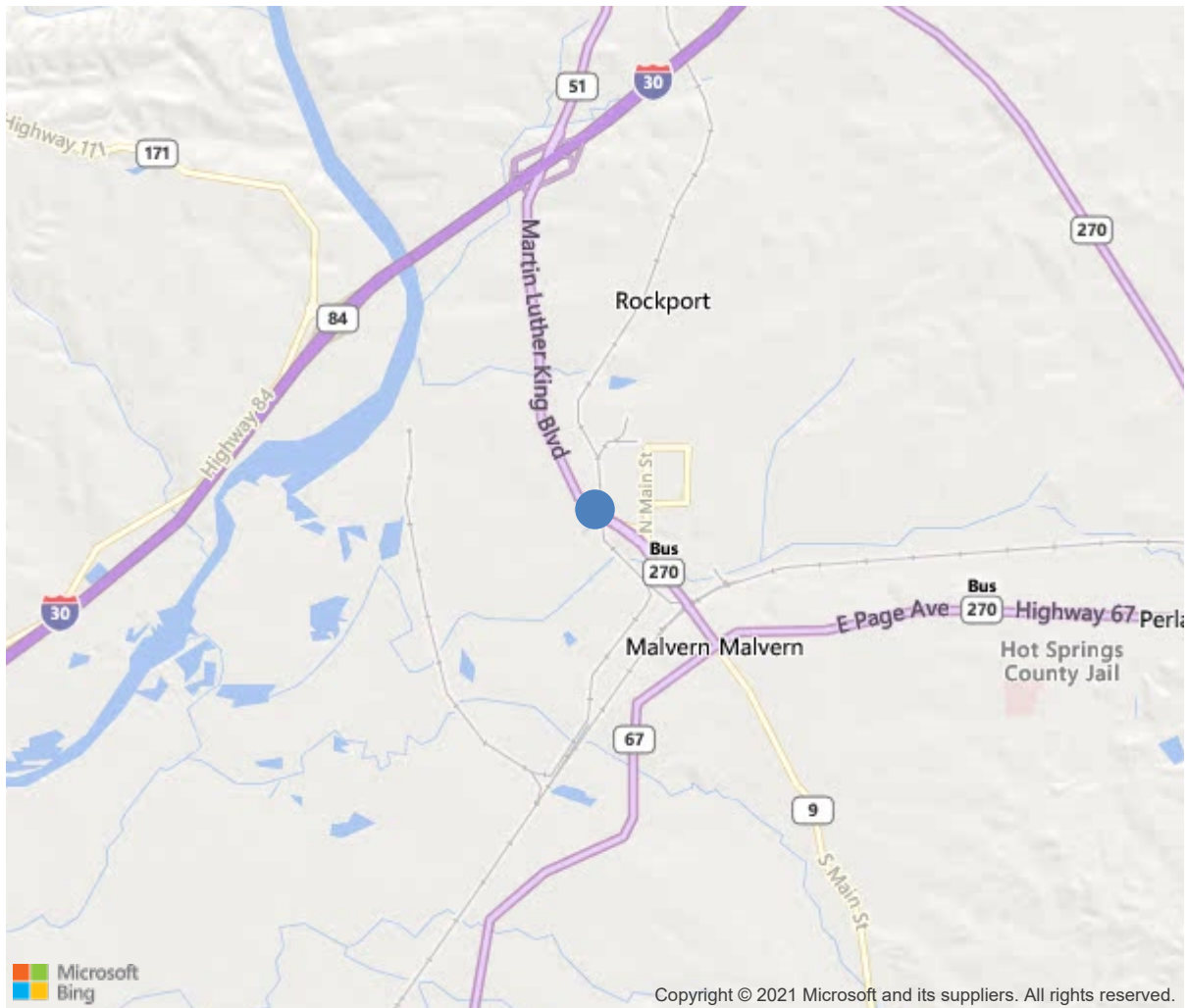
Arnold Road ID:30x270x7BxA, Arnold Log mile:1.722

District 06, Hot Spring County

Owner: 1-State Highway Agency

Place Code: 40980 - MALVERN

.75 MI NW JCT US 270 & 67



34.37207, -92.82284



**Bridge #05177(Routine)**  
**US 270-SEC 7B over PARK DRIVE, UPRR**  
**Location: .75 MI NW JCT US 270 & 67**

**Team Lead: Bryan Saunders Inspection Date: September 26, 2019**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05177
(5) Inventory Route	270
(2) Highway Agency District	06
(3) County Code	59-Hot Spring County, Arkansas
(4) Place Code	40980
(6) Features Intersected	PARK DRIVE, UPRR
(7) Facility Carried	US 270-SEC 7B
(9) Location	.75 MI NW JCT US 270 & 67
(11) Mile Point	1.69 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000270070
(16) Latitude	34.37207
(17) Longitude	-92.82284
(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	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1976
(106) Year Reconstructed	0
(42) Type of Service	14
On	1-Highway
Under	4-Highway-railroad
(28) Lane	
On	4
Under	2
(29) Average Daily Traffic	19000
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	2 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	59 ft
(49) Structure Length	239 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	72.5 ft
(52) Deck Width Out to Out	75.8 ft
(32) Approach Roadway Width (W/Shoulders)	84 ft
(33) Bridge Median	2-Closed median(no barr
(34) Skew	36 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	73.8 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	22.3 ft
Ref:	
(55) Min Lat Underclear RT	8.7 ft
Ref:	
(56) Min Lat Underclear LT	15.3 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	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	N
(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	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	4
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	5
(68) Deck Geometry	9
(69) Clearances, Vertical/Horizontal	5
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(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	0
(114) Future ADT	23287
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	09/2019
(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	No



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**Team Lead:** Bryan Saunders, **Inspection Date:** September 26, 2019

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	17641	10931	5108	1602	0
1080	Delamination/Spall/Patched Area	SF	16	0	14	2	0
1090	Exposed Rebar	SF	2	0	2	0	0
1130	Cracking (RC and Other)	SF	6692	0	5092	1600	0
(12)	Deck has small unsealed cracks Eastbound lane has a large spall with with rebar exposed						
107	Steel Open Girder/Beam	LF	3068	2618	450	0	0
1000	Corrosion	LF	450	0	450	0	0
515	Steel Protective Coating	SF	23265	18397	4068	0	800
3410	Chalking (Steel Protective Coatings)	SF	1800	0	1800	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	3068	0	2268	0	800
(107)	All beam ends have minor corrosion due to torn and leaking joint seals. All beams have scattered areas of corrosion						
205	Reinforced Concrete Column	EA	21	12	0	9	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1090	Exposed Rebar	EA	8	0	0	8	0
(205)	Bent 2 column 7 has exposed Rebar and large vertical cracks. Bent 2 column 1, bent 3 columns 1&7 & bent 4 columns 1&7 all have spalls with exposed rebar. Bent 4 column 6 has large delam.						
215	Reinforced Concrete Abutment	LF	208	168	38	2	0
1130	Cracking (RC and Other)	LF	40	0	38	2	0
(215)	Both abutments have small cracks						
234	Reinforced Concrete Pier Cap	LF	273	206	29	38	0
1080	Delamination/Spall/Patched Area	LF	11	0	0	11	0
1090	Exposed Rebar	LF	14	0	1	13	0
1130	Cracking (RC and Other)	LF	42	0	28	14	0
(234)	All caps have horizontal cracks and delaminations , cap at bent 4 has large spalls with rebar exposed						
302	Compression Joint Seal	LF	439	0	334	90	15





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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2310	Leakage	LF	349	0	334	0	15
2330	Seal Damage	LF	30	0	0	30	0
2340	Seal Cracking	LF	60	0	0	60	0
(302)	All joint seals are Torn and leaking. Bent 4 has 15" of missing joint seal.						
311	Movable Bearing	EA	52	0	46	6	0
1000	Corrosion	EA	52	0	46	6	0
(311)	All bearings have corrosion due to leaking joint seals						
313	Fixed Bearing	EA	52	0	48	4	0
1000	Corrosion	EA	52	0	48	4	0
(313)	Most All bearings have corrosion due to leaking joint seals						
321	Reinforced Concrete Approach Slab	SF	4750	4395	100	255	0
1130	Cracking (RC and Other)	SF	355	0	100	255	0
(321)	Approach slabs have large unsealed cracks						
330	Metal Bridge Railing	LF	472	472	0	0	0
331	Reinforced Concrete Bridge Railing	LF	472	472	0	0	0



Corrosion on the beam ends at bent 2



Deck view





All approach slabs have large unsealed cracks



Spalls with rebar in the underside of the cap at bent 4





Bearing at bent 5 beam 1



Joint seal at bent 5 is torn and leaking





Cracks in back wall at bent 1 beam 1



beam ends have light to moderate corrosion starting to form due to leaking joints.





all Bearings have heavy corrosion and laminating rust



Soffit view





Spalls with rebar at bent 3



Potholes at south east end of the bridge





Deck view



right side of span 2 has a large pothole with exposed rebar





Joint seal has fallen out at bent 4



Column 7 at bent 2 has large spall with exposed rebar and large vertical cracks



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**Inspection Comments**

job 6518 dwg 15532

approach going southeast