



Latitude:35.17050, Longitude:-90.19145

Route:55 Section:11 Log:7.19

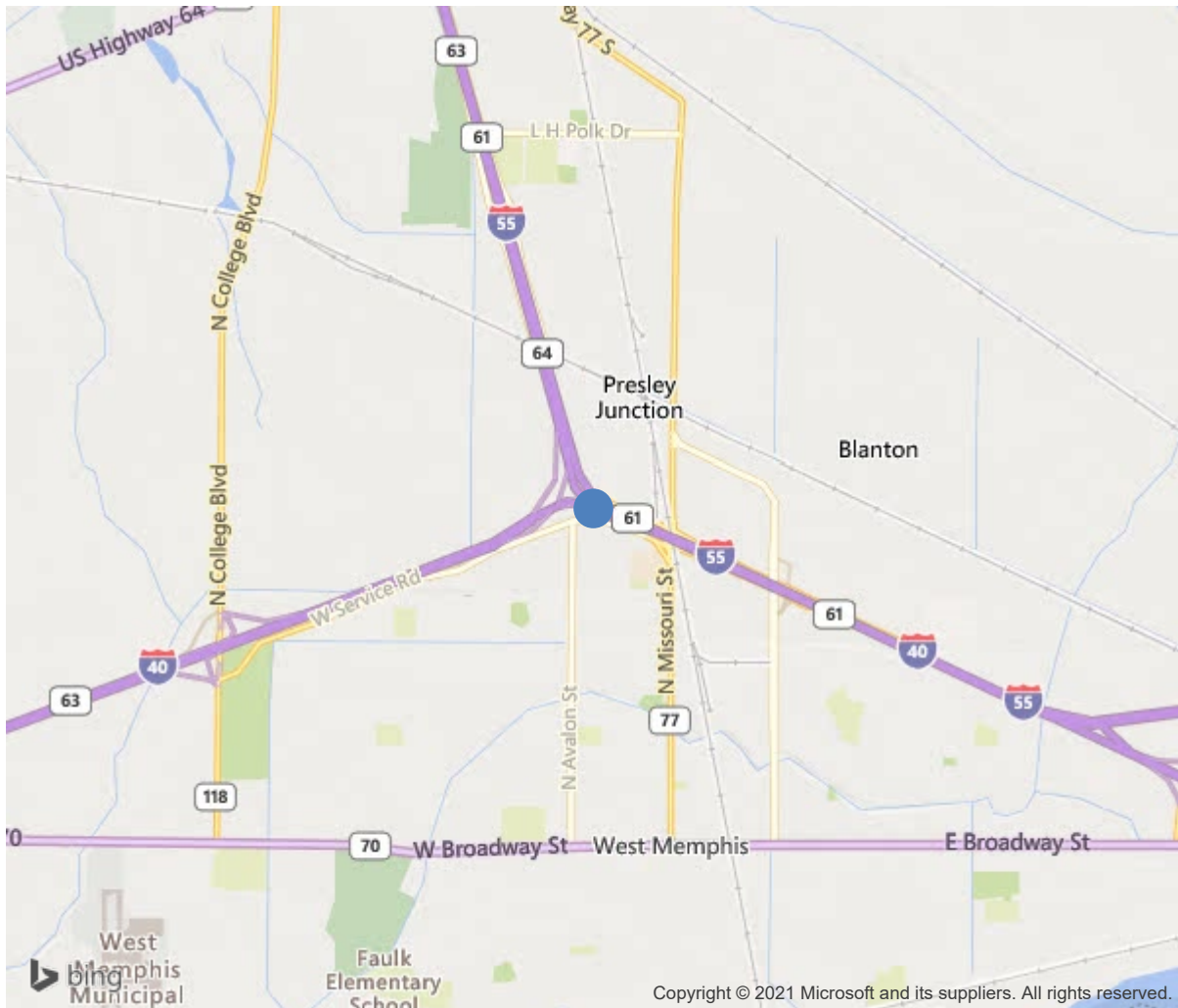
Arnold Road ID:18x55x11xB, Arnold Log mile:65.142

District 01, Crittenden County

Owner: 1-State Highway Agency

Place Code: 72140 - WEST MEMPHIS

W Memphis Interchange



35.17050, -90.19145



Bridge #06102(Record Change)

I-55/Sec-11/L-7.19 over I-40/Sec-52/L-277.13

Location: W Memphis Interchange

Team Lead: Drew Melton Inspection Date: September 10, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06102
(5) Inventory Route	55
(2) Highway Agency District	01
(3) County Code	35-Crittenden County, Arkansas
(4) Place Code	72140
(6) Features Intersected	I-40/Sec-52/L-277.13
(7) Facility Carried	I-55/Sec-11/L-7.19
(9) Location	W Memphis Interchange
(11) Mile Point	7.19 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000055110
(16) Latitude	35.1705
(17) Longitude	-90.19145
(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	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	1988
(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	2
Under	4
(29) Average Daily Traffic	22000
(30) Year of ADT	2019
(109) Truck ADT	1 %
(19) Bypass, Detour Length	4 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	147 ft
(49) Structure Length	535.8 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	42.8 ft
(32) Approach Roadway Width (W/Shoulders)	38.1 ft
(33) Bridge Median	0-No median
(34) Skew	46 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	17.22 ft
Ref:	
(55) Min Lat Underclear RT	30.3 ft
Ref:	
(56) Min Lat Underclear LT	16.7 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	11-Urban Principal Arterial - Int
(100) Defense Highway	1-The inventory route is on a In
(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	7
(60) Substructure	7
(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	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	8
(68) Deck Geometry	7
(69) Clearances, Vertical/Horizontal	6
(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	43259
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	08/2020
(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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Location: W Memphis Interchange

Team Lead: Drew Melton, Inspection Date: September 10, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	22787	15278	7509	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1130	Cracking (RC and Other)	SF	7508	0	7508	0	0
(12)	All spans have transverse cracks spaced at 3' - 4' up to 1/32" wide. Abutment #2 right side at bridge end has one foot spall exposed rebar no section loss on soffit/under surface. Soffit /under surface over hangs have transverse cs2 cracks so spaced three feet apart.						
107	Steel Open Girder/Beam	LF	2660	0	2660	0	0
1000	Corrosion	LF	2660	0	2660	0	0
515	Steel Protective Coating	SF	40326	0	38310	0	2016
3410	Chalking (Steel Protective Coatings)	SF	38310	0	38310	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	2016	0	0	0	2016
(107)	Paint has become chalky and has 5% bare metal exposed surface rust only.						
205	Reinforced Concrete Column	EA	9	9	0	0	0
215	Reinforced Concrete Abutment	LF	226	170	56	0	0
1120	Efflorescence/Rust Staining	LF	56	0	56	0	0
(215)	Both abutments have vertical cracks with light efflorescence spaced 4' apart.						
234	Reinforced Concrete Pier Cap	LF	191	191	0	0	0
301	Pourable Joint Seal	LF	60	0	60	0	0
2310	Leakage	LF	10	0	10	0	0
2340	Seal Cracking	LF	50	0	50	0	0
(301)	Abutment #2 is pourable joint. Joint is weathered with a few tears.						
305	Assembly Joint without Seal	LF	60	60	0	0	0
(305)	Steel on top has no paint left. Abutment #1 joint is assembly joint						
310	Elastomeric Bearing	EA	25	14	6	5	0
1020	Connection	EA	1	0	1	0	0

**Location: W Memphis Interchange**

**Team Lead:** Drew Melton, **Inspection Date:** September 10, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2220 (310)	Alignment  Abutment #1,2 - Bearing pads pushed back (+/-) 2 inches. Bent 3 girder 1 left side has bearing bolt backed off.	EA	10	0	5	5	0
321  1130 (321)	Reinforced Concrete Approach Slab  Cracking (RC and Other)  Slabs are cracked 80 square feet total.	SF  SF	2800  80	2720  0	80  80	0  0	0  0
331  1130 (331)	Reinforced Concrete Bridge Railing  Cracking (RC and Other)  Rails have cs2 vertical cracks spaced 4' apart.	LF  LF	1072  268	804  0	268  268	0  0	0  0



**Bridge #06102**(Record Change)

**I-55/Sec-11/L-7.19 over I-40/Sec-52/L-277.13**

**Location: W Memphis Interchange**

**Team Lead:** Drew Melton **Inspection Date:** September 10, 2020



## Maintenance Needs

**Date Reported:** 09/13/2012  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Approach

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## Deficiency Description

Expansion has caused abutment #2 bottom corners of parapets on outside to spall.

## Remarks

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Expansion has caused abutment #2 bottom corners of parapets on outside to spall.

**Date Reported:** 09/13/2012  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Approach

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**Deficiency Description**

Abutment slope pavements on sides have separated up to 4" and have slide down.

**Remarks**

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Abutment slope pavements on sides have separated up to 4" and have slide down.



**Date Reported:** 09/13/2012  
**Priority:** G - General/ Preventive maintenance  
**Type of Work:** N/A  
**Status:** Monitor  
**Component:**

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**Deficiency Description**

PIGEON WASTE ACCUMULATED IN LARGE QUANTITIES ON BOTTOM FLANGES OF GIRDERS.

**Remarks**

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Typical pigeon wast.

**Date Reported:** 09/13/2012  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 310 - Elastomeric Bearing

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**Deficiency Description**

Abutment #1,2 - Bearing pads pushed back (+/-) 2 inches.

**Remarks**

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Abutment #1,2 - Bearing pads pushed back (+/-) 2 inches.



**Bridge #06102**(Record Change)  
**I-55/Sec-11/L-7.19 over I-40/Sec-52/L-277.13**

**Location: W Memphis Interchange**

**Team Lead:** Drew Melton **Inspection Date:** September 10, 2020

**Date Reported:** 09/13/2012  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Deck

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#### Deficiency Description

All spans have transverse cracks spaced at 3' - 4' up to 1/32" wide.

#### Remarks

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Typical deck cracks

**Date Reported:** 09/09/2014  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Approach

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**Deficiency Description**

West bound left concrete pier protection has 2' spall and is cracked and broken due to collision.

**Remarks**

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West bound left concrete pier protection has 2' spall and is cracked and broken due to collision.





**Bridge #06102**(Record Change)  
**I-55/Sec-11/L-7.19 over I-40/Sec-52/L-277.13**

**Location: W Memphis Interchange**

**Team Lead:** Drew Melton **Inspection Date:** September 10, 2020

**Date Reported:** 09/01/2020  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Approach

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#### Deficiency Description

Abutment #2 right approach rail has collision damage.

#### Remarks

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Abutment #2 right approach rail has collision damage.



**Date Reported:** 09/01/2020  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** Deck

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**Deficiency Description**

Abutment #2 right side at bridge end has one-foot spall exposed rebar with no section loss on soffit/under surface.

**Remarks**

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Abutment #2 right side at bridge end has one foot spall exposed rebar no section loss on soffit/under surface.

**Date Reported:** 09/01/2020  
**Priority:** D- Routine  
**Type of Work:** Clean  
**Status:** Monitor  
**Component:** 107 - Steel Open Girder/Beam

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**Deficiency Description**

Paint has become chalky and has 5% bare metal exposed surface rust only.

**Remarks**

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Typical outside girder paint condition.



Typical paint condition interior girder



**Bridge #06102**(Record Change)  
**I-55/Sec-11/L-7.19 over I-40/Sec-52/L-277.13**

**Location: W Memphis Interchange**

**Team Lead:** Drew Melton **Inspection Date:** September 10, 2020

### **Inspection Comments**

Drawing numbers:27010-27028.

West bound left concrete pier protection has 2' spall and is cracked and broken due to collision.

Expansion has caused abutment #2 bottom corners of parapets on outside to spall.

Abutment slope pavements on sides have separated up to 4" and have slide down.

Abutment #2 right approach rail has collision damage.

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### **Deck Notes**

8/31/2020 lowered deck from 7 to 6 due to excessive number of open cracks.

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### **Superstructure Notes**

08/31/2020 lowered superstructure from 8 to 7 due to surface rust without section loss.

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### **Substructure Notes**

08/31/2020 lowered substructure from 8 to 7 due to minor problems.