



Latitude:35.84068, Longitude:-90.75258

Route:555 Section:03 Log:1.947

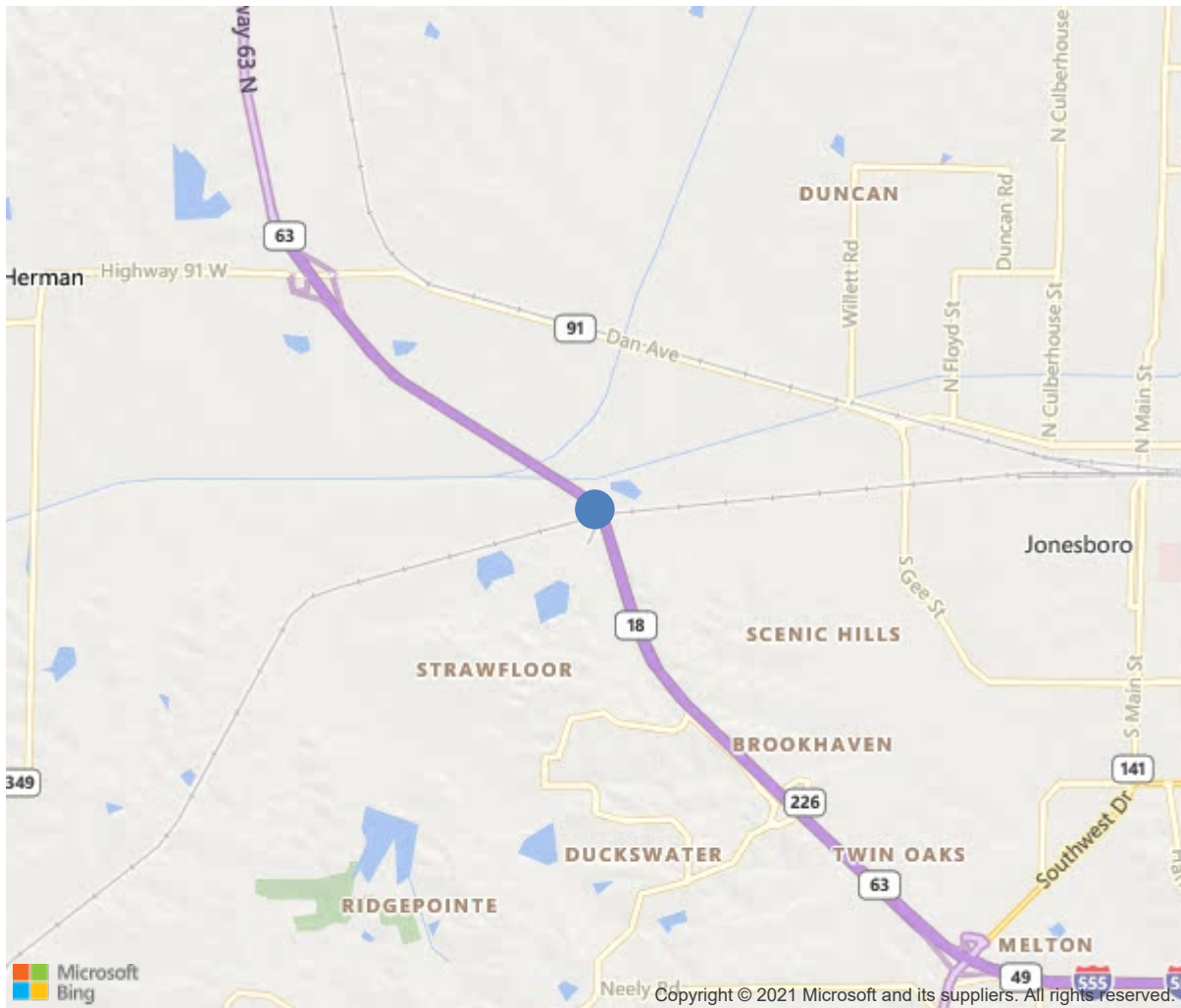
Arnold Road ID:16x555x3xB, Arnold Log mile:1.947

District 10, Craighead County

Owner: 1-State Highway Agency

Place Code: 34720 - JONESBORO

4.14 MI NW OF SH 18



35.84068, -90.75258



Bridge #A5204(Routine)
I-555 over SLSW RR; Mahon St.
Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones Inspection Date: April 21, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A5204
(5) Inventory Route	63
(2) Highway Agency District	10
(3) County Code	31-Craighead County, Arkansas
(4) Place Code	34720
(6) Features Intersected	SLSW RR; Mahon St.
(7) Facility Carried	US 63, SB LNS
(9) Location	4.14 MI NW OF SH 18
(11) Mile Point	10.92 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000063060
(16) Latitude	35.8406845931916
(17) Longitude	-90.7525752131303
(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	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	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1978
(106) Year Reconstructed	0
(42) Type of Service	14
On	1-Highway
Under	4-Highway-railroad
(28) Lane	
On	2
Under	2
(29) Average Daily Traffic	21000
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	70 ft
(49) Structure Length	296.2 ft
(50) Curb or Sidewalk Width	
Left	0.4 ft
Right	0.4 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42.2 ft
(32) Approach Roadway Width (W/Shoulders)	44 ft
(33) Bridge Median	0-No median
(34) Skew	25 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	39.7 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	22.11 ft
Ref:	
(55) Min Lat Underclear RT	6.6 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	N-Not applicable, no waterway.
(111) Pier Protection	5-None present but re-evaluation
(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	2-The inventory route is on a No
(101) Parallel Structure	R-The right structure of paralle
(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	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	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	6
(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	0
(114) Future ADT	11407
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			04/2020
(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	Yes		04/2021
* 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.			



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Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones, **Inspection Date:** April 21, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12054	7713	1843	2498	0
1080	Delamination/Spall/Patched Area	SF	2476	0	0	2476	0
1090	Exposed Rebar	SF	22	0	0	22	0
1120	Efflorescence/Rust Staining	SF	813	0	813	0	0
1130	Cracking (RC and Other)	SF	1030	0	1030	0	0
510	Wearing Surfaces	SF	11466	11216	250	0	0
3210	Delam/Spall/Patched Area/Pothole	SF	250	0	250	0	0
107	Steel Open Girder/Beam	LF	2058	1918	140	0	0
1000	Corrosion	LF	140	0	140	0	0
515	Steel Protective Coating	SF	16772	14257	1677	503	335
3440	Effectiveness (Steel Protective Coatings)	SF	2515	0	1677	503	335
205	Reinforced Concrete Column	EA	8	1	7	0	0
1080	Delamination/Spall/Patched Area	EA	2	0	2	0	0
1090	Exposed Rebar	EA	4	0	4	0	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
215	Reinforced Concrete Abutment	LF	107	50	12	45	0
1080	Delamination/Spall/Patched Area	LF	43	0	0	43	0
1090	Exposed Rebar	LF	2	0	2	0	0
1130	Cracking (RC and Other)	LF	12	0	10	2	0
234	Reinforced Concrete Pier Cap	LF	175	127	21	27	0
1080	Delamination/Spall/Patched Area	LF	23	0	0	23	0
1090	Exposed Rebar	LF	4	0	0	4	0
1120	Efflorescence/Rust Staining	LF	6	0	6	0	0
1130	Cracking (RC and Other)	LF	15	0	15	0	0
302	Compression Joint Seal	LF	271	0	0	148	123
2320	Seal Adhesion	LF	123	0	0	0	123
2340	Seal Cracking	LF	148	0	0	148	0
311	Movable Bearing	EA	35	0	0	35	0
2220	Alignment	EA	35	0	0	35	0
313	Fixed Bearing	EA	35	0	0	35	0



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Team Lead: Richard Jones, **Inspection Date:** April 21, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2220	Alignment	EA	35	0	0	35	0
321	Reinforced Concrete Approach Slab	SF	1728	1570	0	158	0
1080	Delamination/Spall/Patched Area	SF	96	0	0	96	0
1130	Cracking (RC and Other)	SF	62	0	0	62	0
510	Wearing Surfaces	SF	1728	1728	0	0	0
330	Metal Bridge Railing	LF	588	588	0	0	0
331	Reinforced Concrete Bridge Railing	LF	588	584	4	0	0
1090	Exposed Rebar	LF	4	0	4	0	0



roadway



wearing surface



Soffit

Maintenance Needs

Date Reported: 04/19/2011
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Monitor
Component: Superstructure

Deficiency Description

Span 4 bent 4 fixed bearings 1 – 7 are rotated back and twisted. Front edge of bearing has separated from cap up to 1/2" (bearing 7 has 1" gap). Bearings have several loose bolts at connection to bottom flange of girder. Several are missing anchor bolts.

Remarks



Bent 4 Bearing 7 tilted and twisted, typical for bearings on Bt. 4.



Span 4 Bent 4 bearing 4

Date Reported: 04/19/2011
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Monitor
Component: Superstructure

Deficiency Description

Deck at bent 4 has a one inch lateral shift. Bent 4 girder 1 at spans 3 and 4 are butted together.

Remarks



Bent 4



Span 3 and 4 bearing 1

Date Reported: 04/19/2011
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Bent 4 cap has 25' on ahead side with horizontal cracks/delaminated and spalled with 3' of rebar exposed. Crack runs along face of cap 6" - 8" down from top of cap. Back side of cap has a 3' horizontal crack between girders 6 & 7.

Remarks





Bridge #A5204(Routine)
I-555 over SLSW RR; Mahon St.
Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones **Inspection Date:** April 21, 2020

Date Reported: 04/19/2011
Priority: G - General/ Preventive maintenance
Type of Work: Clean
Status: Monitor
Component: Channel

Deficiency Description

Girders have areas of scattered freckled rust.
Ends of beams have some minor section loss near concrete haunch.

Remarks

Team Lead: Richard Jones **Inspection Date:** April 21, 2020

Date Reported: 04/19/2011
Priority: B - Pressing; 6 month completion goal
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Joints at bents 2 - 5 are closed. Concrete haunches underneath have cracks and/or spalls.

Remarks



Date Reported: 04/23/2012
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Assigned
Component: Superstructure

Deficiency Description

Span 2 bent 2 fixed bearings have several loose bolts between bottom flange of girder and top plate of bearing. Several bearings are twisted.

Remarks



Span 2 bent 2 bearing 1



Span 2 bent 2 bearing 3



Span 2 bent 2 bearing 4



Span 2 bent 2 bearing 5



Bridge #A5204(Routine)
I-555 over SLSW RR; Mahon St.
Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones **Inspection Date:** April 21, 2020

Date Reported: 04/23/2012

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Compression joint seals are torn and split.

Remarks

Date Reported: 04/23/2012
Priority: B - Pressing; 6 month completion goal
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Spans have shifted laterally in the past. Several bearings have missing anchor bolts. Several have loose bolts at bearing and girder connection.
Several rocker bearings are at max rotation.
Several fixed bearings have shifted/twisted. Several fixed bearings are rocked back with a gap between front side of bearing and cap.

Remarks



Span 3 and 4 Bent 4 bearing 2



Span 3 Bent 3 bearing 7

Date Reported: 04/23/2012
Priority: B - Pressing; 6 month completion goal
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Bent 4 joint is closed. Rt rail and overhang over bent 4 is spalled with 4' of rebar exposed.

Remarks





Bent 4 Joint has closed, causing damage to Rt. side curb and overhang.



Span 4 right

Date Reported: 04/23/2012
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Bent 6 backwall is cracked/spalled with rebar exposed. Backwall has rotated back towards girders $\frac{3}{4}$ ".

Remarks



Bent 6 Lt



Bridge #A5204(Routine)
I-555 over SLSW RR; Mahon St.
Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones Inspection Date: April 21, 2020

Date Reported: 04/28/2016
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Deck has several spalls, delaminated areas, and unsound patches.

Remarks





Bridge #A5204(Routine)
I-555 over SLSW RR; Mahon St.
Location: 4.14 MI NW OF SH 18

Team Lead: Richard Jones **Inspection Date:** April 21, 2020





Inspection Comments

Deck Notes

Approach slabs have been noted in the past as having moderate width cracks and a few spalls and patched areas. Approach slabs have an asphalt overlay.

Metal bridge rail has areas of minor collision damage.

Concrete rails have a few minor spalls with rebar exposed.

Joints at bents 2 - 5 are closed. Concrete haunches underneath have cracks and/or spalls.

Compression seals are ripped/torn with some sections missing. Joints are partially covered with asphalt.

Deck has been noted in the past as having several unsealed transverse cracks, delaminated areas and spalls with rebar exposed. Deck has been covered with asphalt overlay.

Deck over bent 4 has a 1" lateral shift. No change since 2008 report.

Rt rail and overhang over bent 4 is spalled with 4' of rebar exposed.

Soffit and overhangs have a few minor efflorescent cracks.

Superstructure Notes

Girders have areas of scattered freckled rust.

Ends of beams have some minor section loss near concrete haunch.

Joints at bents 2 - 5 are closed. Concrete haunches underneath have cracks and/or spalls.

Several bearings have loose bolts at connection to bottom flange of beams. Several bearings are twisted. Air temp 57

Bent 1 bearings have shifted back toward backwall 1/4".

Span 2 bent 2 fixed bearings have several loose bolts between bottom flange of girder and top plate of bearing. Several bearings are twisted.

Span 2 bent 3 bearings 1 – 4 are rotated back, bearing 7 is rotated ahead. Bearings 1 – 3 are at max rotation.

Span 3 bent 3 fixed bearing 7 is rotated back. Bearing has a 1/2" gap between front side of bearing and cap.

Span 3 bent 4 bearings 1 and 2 are rotated ahead and at max rotation.

Bent 4 girder 1 at spans 3 and 4 are butted together.

Span 4 bent 4 fixed bearings 1 – 7 are rotated back and twisted. Front edge of bearing has separated from cap up to 1/2" (bearing 7 has 1" gap). Bearings have several loose bolts at connection to bottom flange of girder. Several are missing anchor bolts.

Span 4 bent 5 bearings 1 and 2 are rotated back and at max rotation.

Span 5 bent 5 bearings 1, 2, 4, 5, and 6 are rotated back and at max rotation.

Bent 6 fixed bearings have been shimmed in the past. Bearings and shims have pack rust and section loss.

Bent 6 bearing 4 is missing 1 anchor bolt.

Bent 6 bearing 5 is missing 2 anchor bolts.

Substructure Notes



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Concrete columns have a few minor cracks and spalls; some with rebar exposed.

Bent 2 cap has cracks with some efflorescence and rust stains near columns.

Bent 3 cap has 1' delaminated, 1' of rebar exposed, and 2' of cracks.

Bent 4 cap has 25' on ahead side with horizontal cracks/delaminated areas. Cap has a spall with 3' of rebar exposed between bearings 3 and 4.

Bent 5 cap has 10' cracked on back side and 3' cracked on ahead side.

Bent 6 backwall is cracked/spalled with rebar exposed. Backwall has rotated back towards girders $\frac{3}{4}$ ". Cap has wide vertical cracks under bearing 2.

Concrete slope paving at Lt end of bent 6 is cracked and settled. Embankment underneath has an unknown size void.