



Latitude:36.05257, Longitude:-90.48759

Route:412 Section:09B Log:0.987

Arnold Road ID:28x412x9BxA, Arnold Log mile:0.989

District 10, 55 - Greene County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

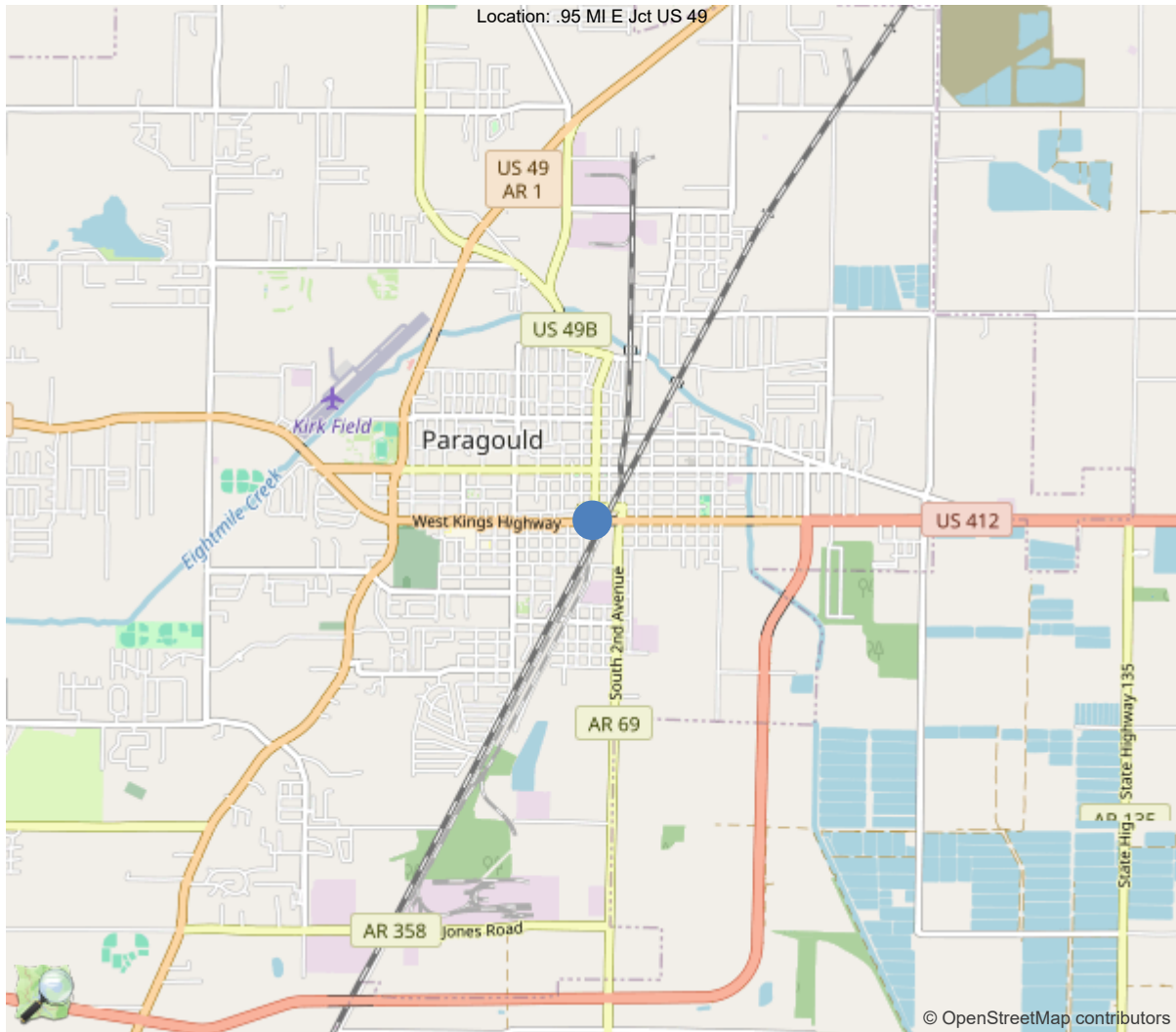
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	50		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



36.05257, -90.48759



Asset #06087(Routine)

US 412-09- LM 0.06 over 2ND ST &SLSW RR

Location: .95 MI E Jct US 49

Team Lead: Richard Jones Inspection Date: 10/28/2024

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06087
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	55 - Greene County
(4) Place Code	53390
(6) Features Intersected	2ND ST &SLSW RR
(7) Facility Carried	US 412-09- LM 0.06
(9) Location	.95 MI E Jct US 49
(11) Mile Point	0.987 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000412090
(16) Latitude	36.052572
(17) Longitude	-90.4875891
(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	9
(46) No. of Approach Spans	0
(107) Deck Structure Type	1 - Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	0 - None (no additional concrete thickne
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1984
(106) Year Reconstructed	0
(42) Type of Service	54
On	5 - Highway-pedestrian
Under	4 - Highway-railroad
(28) Lane	
On	4
Under	2
(29) Average Daily Traffic	14000
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	0 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	82 ft
(49) Structure Length	545.6 ft
(50) Curb or Sidewalk Width	
Left	4 ft
Right	4 ft
(51) Bridge Roadway Width Curb to Curb	50 ft
(52) Deck Width Out to Out	60 ft
(32) Approach Roadway Width (W/Shoulders)	49.9 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	50 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	14.03 ft
Ref:	
(55) Min Lat Underclear RT	12.7 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	N - Not applicable, no waterwa
(111) Pier Protection	1 - Navigation protection not
(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	0
(26) Functional Class	14 - Urban Other Principal Art
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exis
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	1 - The inventory route is par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(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	
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	
(68) Deck Geometry	3
(69) Clearances, Vertical/Horizontal	4
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(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	20078
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	10/28/2024		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* 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.			



Asset #06087(Routine)

US 412-09- LM 0.06 over 2ND ST &SLSW RR

Location: .95 MI E Jct US 49

Team Lead: Richard Jones Inspection Date: 10/28/2024

General Observation

Inspected from Aspen A52.
Greene County set up lane closure.

58 - Deck (7 - GOOD CONDITION - some minor problems.)

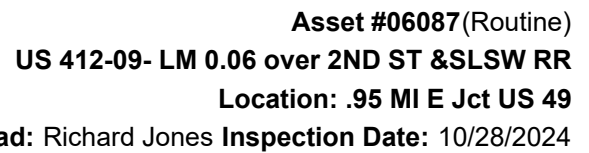
Deck is in overall good condition, but has a few unsealed cracks and areas of abrasion/traffic wear.

59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

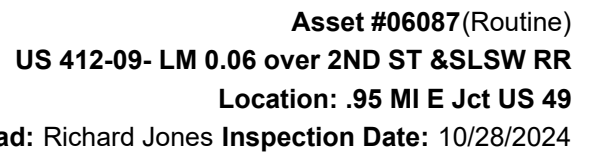
Girders are in mostly good condition, but have areas of minor section loss.

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

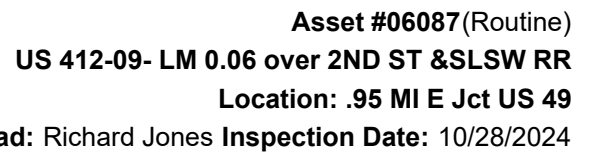
Substructure is in overall good condition, but has scattered cracks and spalls and some minor settlement/misalignment at corners of MSE walls.



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	28508	15948	11696	864	0
1080	Delamination/Spall/Patched Area	SF	9	0	9	0	0
1130	Cracking (RC and Other)	SF	1067	0	284	783	0
1190	Abrasion/Wear (PSC/RC)	SF	11484	0	11403	81	0
(12) Approach roadways at bents 1 and 10 have some settlement. Sidewalks have settlement at bents 1 and 10. Deck has a few unsealed longitudinal, diagonal, and transverse cracks. 284' CS2, 783' CS3 Deck has abrasion/traffic wear in wheel paths with a few scattered popouts. 11403' CS2, 81' CS3 Overhangs have a few transverse cracks and a few small delaminated areas. 9' CS2 Stay in place forms have corrosion under joints.							
107	Steel Open Girder/Beam	LF	4344	3408	917	19	0
1000	Corrosion	LF	936	0	917	19	0
515	Steel Protective Coating	SF	42556	10070	21278	4256	6952
3440	Effectiveness (Steel Protective Coatings)	LF	32486	0	21278	4256	6952
(107) Paint system is faded with areas of limited effectiveness. Girders have scattered areas of freckled surface rust. 917' CS2 Span 1 and 2 girder 7 has rust with areas initial section loss on bottom flange cover plate and along bottom of web. 11' CS3 Bent 4 diaphragm 1 connection to girder 6 has 1 bolt hole not drilled. Ends of girders over bents 5 & 6 have rust with areas of initial section loss. 3' CS3 Span 6 bent 6 girders 5, 7, and 8 have rust with measurable section loss in web below haunch. 3' CS3 Span 7 bent 8 girder 8 and Span 8 bent 8 girder 8 have 6" areas of 1/8" section loss at bottom of web over bearings. 2' CS3							
205	Reinforced Concrete Column	EA	24	16	5	3	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1090	Exposed Rebar	EA	1	0	1	0	0
1130	Cracking (RC and Other)	EA	3	0	1	2	0
6000	Scour	EA	3	0	3	0	0
(205) Columns have a few small spalls with exposed rebar from lack of coverage. Bent 3 column 2 ahead has a 3' vertical crack under cap CS3 Bent 4 column 2 back has a 2' delamination CS3 Bent 4 column 3 ahead has a vertical crack CS3 Bent 5 column footings are partially exposed on back side. Bent 5 column 3 back has a 2' vertical crack 3' from bottom of cap CS2							
210	Reinforced Concrete Pier Wall	LF	102	102	0	0	0
(210) Bent 5 and 6 web walls are in good condition							
215	Reinforced Concrete Abutment	LF	319	270	47	2	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	33	0	31	2	0
4000	Settlement	LF	12	0	12	0	0
(215) Cap portion of abutments have several vertical cracks 31' CS2							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>MSE walls have leakage and staining at a few joints. Several joints have vegetation growing between panels. MSE walls have a few scattered small spalls 4' CS2, and cracks 2' CS3. Corners at bents 1 and 10 have some settlement or misalignment: 12' CS3 Bent 1 front face of MSE wall has 2 panels with some settlement/misalignment between girders 7 and 8. Bent 1 left – top corner block has settled & rotated away from bridge. Corner block beneath top block is spalled along corner and has 2 minor cracks on left side. Bent 1 right – top 2 corner blocks have some settlement & misalignment. 1st panel perpendicular to abutment at top is cracked & spalled. Bent 1 backwall portion of abutment is broke on both ends near sidewalk connections.</p> <p>Bent 10 left – top corner block has settled & rotated away from bridge. Bent 10 right – top corner block has settled & rotated away from bridge. 1st row of panels perpendicular to abutment have cracks & spalls.</p>							
234	Reinforced Concrete Pier Cap	LF	422	393	24	5	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1090	Exposed Rebar	LF	5	0	2	3	0
1120	Efflorescence/Rust Staining	LF	4	0	3	1	0
1130	Cracking (RC and Other)	LF	15	0	14	1	0
<p>(234) Bent 2 cap has 1' spall with exposed rebar CS2 and 1' cracking CS2 Bent 3 cap has 3' of delamination CS2 and 2' of spall with exposed rebar CS2 and 2' of cracking CS2 Bent 4 cap has 1' of cracking CS2 Bent 5 cap has 1' spall with exposed rebar CS2 and 1' of cracking CS2 Bent 6 cap has 4' of vertical cracks CS2 Bent 6 ahead Rt crack 1' CS3 Bent 7 cap has 2' cracking CS2 and 1' delamination CS2 Bent 7 cap over column 2 has a 3' area of map cracking. CS2 Bent 8 cap has 2' cracking CS2 and 1' spall with exposed rebar CS2 and 1' of delamination Bent 9 cap has 1' of cracking with rust stains CS3 and 1' of cracking CS2</p>							
301	Pourable Joint Seal	LF	58	0	0	0	58
2320	Seal Adhesion	LF	58	0	0	0	58
(301) Bent 7 joint has loss of adhesion. 58' CS4							
302	Compression Joint Seal	LF	529	0	30	380	119
2320	Seal Adhesion	LF	30	0	30	0	0
2330	Seal Damage	LF	499	0	0	380	119
<p>(302) Compression seals are ripped and torn with sections partially pulled out. 380 CS3 Bent 2 and 5 seals are missing. 119' CS4 Bent 6 seal has some loss of adhesion. 30' CS2</p>							
311	Movable Bearing	EA	72	0	62	10	0
1000	Corrosion	EA	72	0	62	10	0
<p>(311) Rocker bearings have corrosion throughout. 62 CS2 A few have pack rust or section loss, some are missing anchor bolts. 10 CS3 Span 4 bent 5 bearings 1 and 8 have a loose cap screw on side of bearing. Span 4 bent 5 bearings 3, 4, and 6 are each missing 1 anchor bolt. Span 6 bent 7 bearings 4 and 6 are each missing 1 anchor bolt.</p>							



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
313	Fixed Bearing	EA	72	0	65	7	0
1000	Corrosion	EA	72	0	65	7	0
(313) Fixed bearings have corrosion throughout. 65 CS2 A few have pack rust or section loss, some are missing anchor bolts. 7 CS3							
330	Metal Bridge Railing	LF	1086	1080	6	0	0
7000	Damage	LF	6	0	6	0	0
515	Steel Protective Coating	SF	426	426	0	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	426	426	0	0	0
(330) Rt metal rail has a minor bow from past impact damage near bent 5. 6' CS2							
331	Reinforced Concrete Bridge Railing	LF	1086	806	235	45	0
1130	Cracking (RC and Other)	LF	280	0	235	45	0
(331) Concrete rails have scattered vertical cracks. 235' CS2, 45' CS3							



09/12/2022

Elevation



10/28/2024

Under South approach



10/28/2024

Under North approach



10/28/2024

Deck



Under surface



Bent 6 ahead Rt crack CS3



Bent 1 Rt starting 22 units back from 90° cracks and corner spalls



Bent 1 Rt



Bent 1



Bent 1 Lt



Bent 10 Lt



Bent 10



Bent 10 abutment Rt



Bent 10 abutment has 16' of cracks CS2



Bent 9 cap has 1' of cracking with rust stains CS3 and 1' of cracking CS2



Bent 7 cap has 2' cracking CS2 and 1' delamination CS2



Bent 6 cap has 4' of vertical cracks CS2



Bent 5 column 3 back has a 2' vertical crack 3' from bottom of cap CS2



Bent 5 cap has 1' spall with exposed rebar CS2 and 1' of cracking CS2



Bent 4 column 3 ahead has a vertical crack CS3



Bent 4 cap has 1' of cracking CS2



Bent 3 column 2 ahead has a 3' vertical crack under cap CS3



Bent 3 cap has 3' of delamination CS2 and 2' of spall with exposed rebar CS2 and 2' of cracking CS2



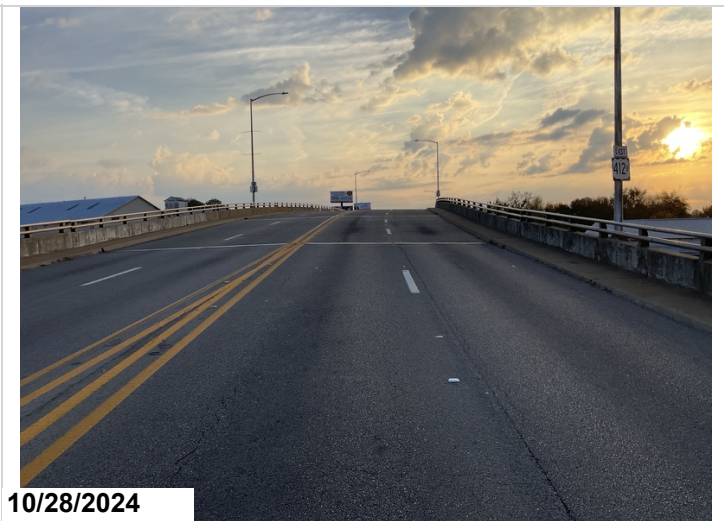
Bent 1 abutment has 15' of cracking CS2



Bent 2 cap has 1' spall with exposed rebar CS2 and 1' cracking CS2



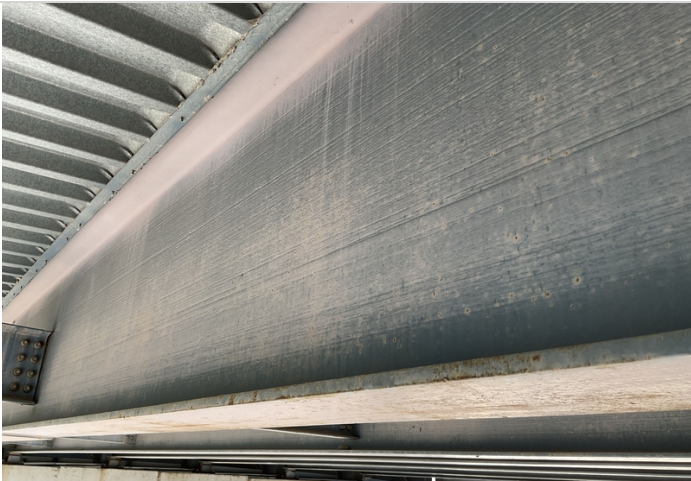
Bent 5 back footings exposed



Roadway



Bent 6 1/2 torn/ adhesion 2



Typical faded paint



Typ corrosion at ends



Span 6 bent 6 girder 5 has some minor flaking rust in web below haunch



Span 2 East bound delam/shallow spalls

10/28/2024



Bent 1 Rt vegetation

10/28/2024



Bent 10 Rt vegetation in mse joints

10/28/2024



Bent 7 poured adhesion

Maintenance Needs

Date Reported: 07/31/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Deck

Deficiency Description

Compression seals are torn and losing adhesion. Seals over bents 2 and 5 are missing.

Remarks



Bent 2, 5 seal missing



Bent 1, 3, 4, 8, 9, 10 joint torn



missing seal

Maintenance Needs

Date Reported: 10/28/2024

Priority: C - Important

Type of Work: Flammable Material

Status: Open

Component: Miscellaneous

Deficiency Description

Several items are parked/stored under spans 2 and 3.

Remarks



Span 3 under bridge storage



Span 2 under bridge storage



Span 2 under bridge storage

Maintenance Needs

Date Reported: 07/31/2012

Priority: D- Routine

Type of Work: Approach Leveling/Maintenance

Status: Monitor

Component: Approach

Deficiency Description

Approach roadways at bents 1 and 10 have some settlement.
Sidewalks have settlement at bents 1 and 10.

Remarks



Bent 1 Rt



Bent 1 at centerline



Typical settlement at bents 1 and 10

Maintenance Needs

Date Reported: 07/30/2018

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

Deficiency Description

Bent 1 front face of MSE wall has 2 panels with some settlement/misalignment between girders 7 and 8.

Bent 1 Lt – top corner block has settled/rotated away from bridge. Corner block beneath top block is spalled along corner, and has 2 minor cracks on Lt side.

Bent 1 Rt – top 2 corner blocks have some settlement/misalignment. 1st panel perpendicular to abutment at top is cracked/spalled.

Bent 10 Lt – top corner block has settled/rotated away from bridge.

Bent 10 Rt – top corner block has settled/rotated away from bridge. 1st row of panels perpendicular to abutment have cracks/spalls.

Remarks



Bent 1 Lt MSE wall settlement at top corner





bent 1 Rt

Maintenance Needs

Date Reported: 07/31/2012

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Superstructure

Deficiency Description

Girders have areas of surface rust. Paint system is faded with areas of limited effectiveness.

Span 1 girder 7 has rust with areas initial section loss at bottom flange cover plate.

Ends of girders over bents 5 & 6 have rust with some initial section loss.

Bearings have some pack rust between masonry plate and bearing plate.

Remarks



Span 7 bent 8 girder 8 and Span 8 bent 8 girder 8 have 6" areas of 1/8" section loss at bottom of web over bearings. CS3



Span 6 bent 6 girder 8 CS3



span 5 bent 5 girder 7 CS3



Span 2 bent 3 bearing 5



Span 1 girder 7 corrosion with minor section loss CS3



Span 6 bent 6 bearing 5 retainer is bowed from pack rust at cap screw. CS3



Span 2 girder 7 Rt side corrosion



Span 6 bent 7 bearing 6 has 1 anchor bolt sheared off



Span 6 bent 7 bearing 4 has 1 anchor bolt sheared off



Span 4 bent 5 bearing 6 has 1 anchor bolt sheared off



Span 4 bent 5 bearing 4 has 1 anchor bolt sheared off



Span 4 bent 5 bearing 3 has 1 anchor bolt sheared off



Span 3 bent 4 bearing 4 retainer is bowed from pack rust at cap screw. CS3





09/12/2022

Maintenance Needs

Date Reported: 07/10/2014

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

Deficiency Description

Caps and columns have a few small spalls with rebar exposed from lack of coverage.

Remarks



10/28/2024

Bent 8 cap has 2' cracking CS2 and 1' spall with exposed rebar CS2 and 1' of delamination



10/28/2024

Bent 4 column 2 back has a 2' delamination CS3

Maintenance Needs

Date Reported: 07/30/2018

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

Deficiency Description

MSE walls have leakage and staining at a few joints. Several joints have vegetation growing between panels.

Remarks





Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	Yes
A-60 - Full Beam Painting Needed	Yes
A-61 - Polymer Overlay Advised	Yes
A-62 - Hydro and LMC Advised	No
A-63 - Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	Yes

A-54 - Sealable Deck Cracks (Yes)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (No)

A-57 - Girder End and Bearing Painting Needed (No)

A-58 - Cap Cleaning/Flushing Needed (No)

A-59 - Joint Repair Needed (Yes)



Bent 6 1/2 torn/ adhesion 2

A-60 - Full Girder Painting Needed (Yes)



Typical faded paint



Typ corrosion at ends



Span 6 bent 6 girder 5 has some minor flaking rust in web below haunch

A-61 - Polymer Overlay Advised (Yes)



Span 2 East bound delam/shallow spalls

A-62 - Hydro and LMC Advised (No)

A-63 - Missing/Incorrect Log Mile Signage (No)

A-64 - Vegetation Removal Requested (Yes)



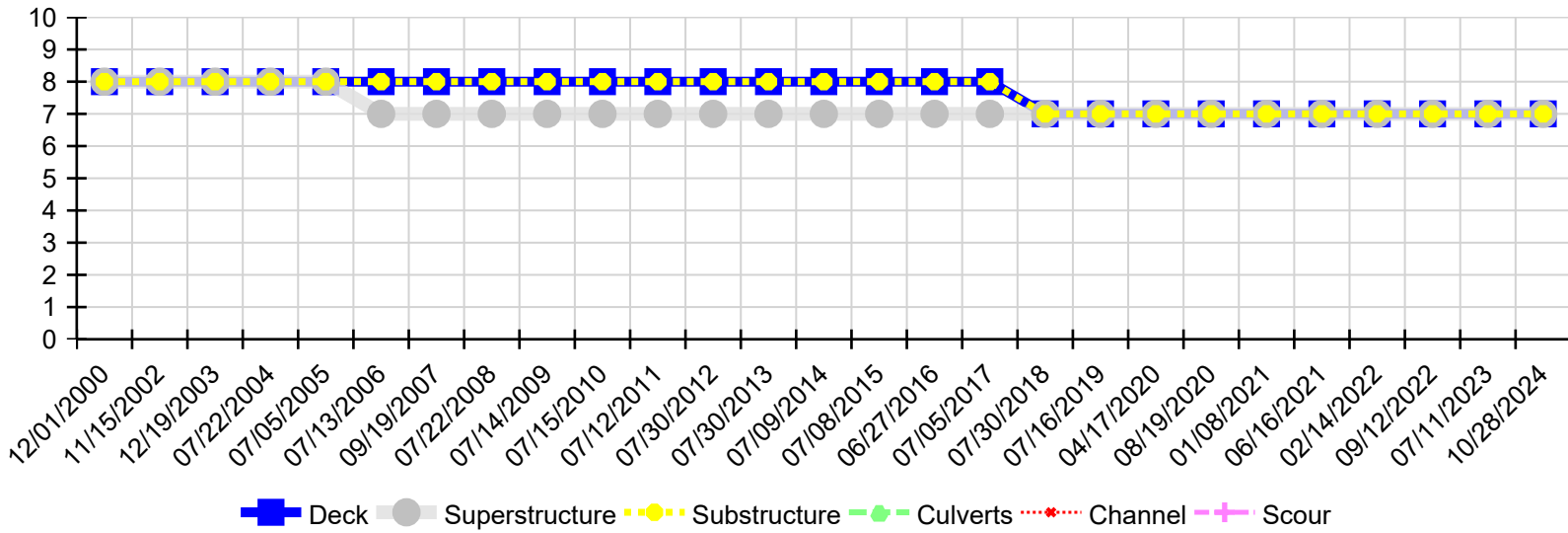
Bent 1 Rt vegetation



Bent 10 Rt vegetation in mse joints

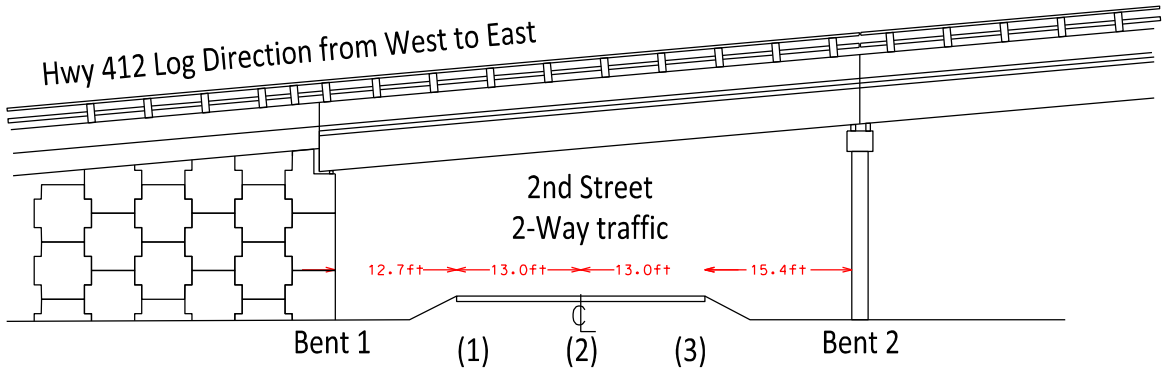


Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/28/2024	7	7	7	N	N	N
07/11/2023	7	7	7	N	N	N
09/12/2022	7	7	7	N	N	N
02/14/2022	7	7	7	N	N	N
06/16/2021	7	7	7	N	N	N
01/08/2021	7	7	7	N	N	N
08/19/2020	7	7	7	N	N	N
04/17/2020	7	7	7	N	N	N
07/16/2019	7	7	7	N	N	N
07/30/2018	7	7	7	N	N	N
07/05/2017	8	7	8	N	N	N
06/27/2016	8	7	8	N	N	N
07/08/2015	8	7	8	N	N	N
07/09/2014	8	7	8	N	N	N
07/30/2013	8	7	8	N	N	N
07/30/2012	8	7	8	N	N	N
07/12/2011	8	7	8	N	N	N
07/15/2010	8	7	8	N	N	N
07/14/2009	8	7	8	N	N	N
07/22/2008	8	7	8	N	N	N
09/19/2007	8	7	8	N	N	N
07/13/2006	8	7	8	N	N	N
07/05/2005	8	8	8	N	N	N
07/22/2004	8	8	8	N	N	N
12/19/2003	8	8	8	N	N	N
11/15/2002	8	8	8	N	N	N
12/01/2000	8	8	8	N	N	N

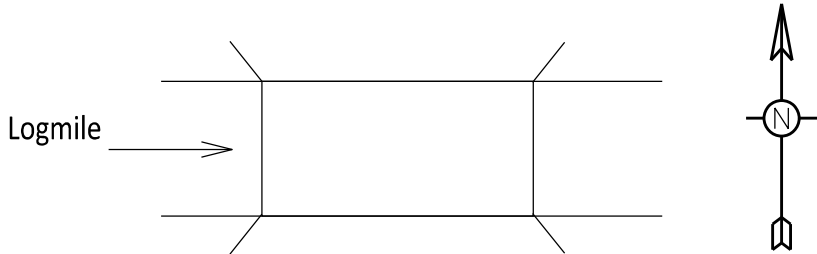
06087 Span 1 Underclearance			
Beam#	(1)	(2)	(3)
1	14.30'	14.86'	15.88'
2	14.67'	15.41'	16.53'
3	14.72'	15.60'	16.72'
4	14.87'	15.72'	16.71'
5	14.81'	15.75'	16.85'
6	14.65'	15.65'	16.70'
7	14.48'	15.49'	16.64'
8	14.01'	14.91'	15.94'



Looking North

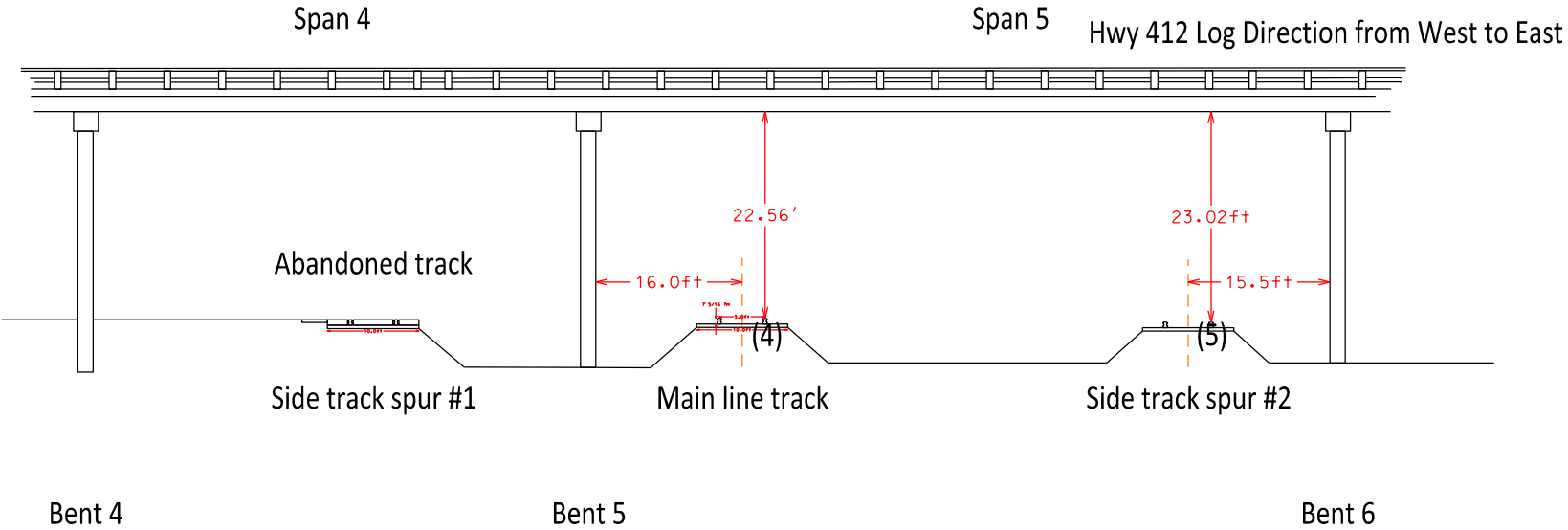
Red readings are minimum clearance per roadway (Item #54)

Gold readings are maximum minimum clearance per roadway (Item 10)



06087 Spans 4 and 5 underclearances

	Main Line Track (4)	Side Track Spur #2 (5)
Beam#		
1	22.56'	23.02'
2		
3		
4		
5		
6		
7		
8		



Red readings are minimum clearance per roadway (Item #54)

AR DOT BRIDGE OPERATIONS	BRIDGE NO. 06087		District: 10
	Logmile: 0.60 Route: 412		County: Greene - 28
	Date Drawn: 10/28/2024 Insp. / Assist.: RRJ / NSR		Sect/Zone: 09
AR DOT BRIDGE OPERATIONS		Scale: 1"=20'	
Inspection Dir: W to E Channel Flow: NA		Arkansas State Highway Commission Little Rock, ARK.	