



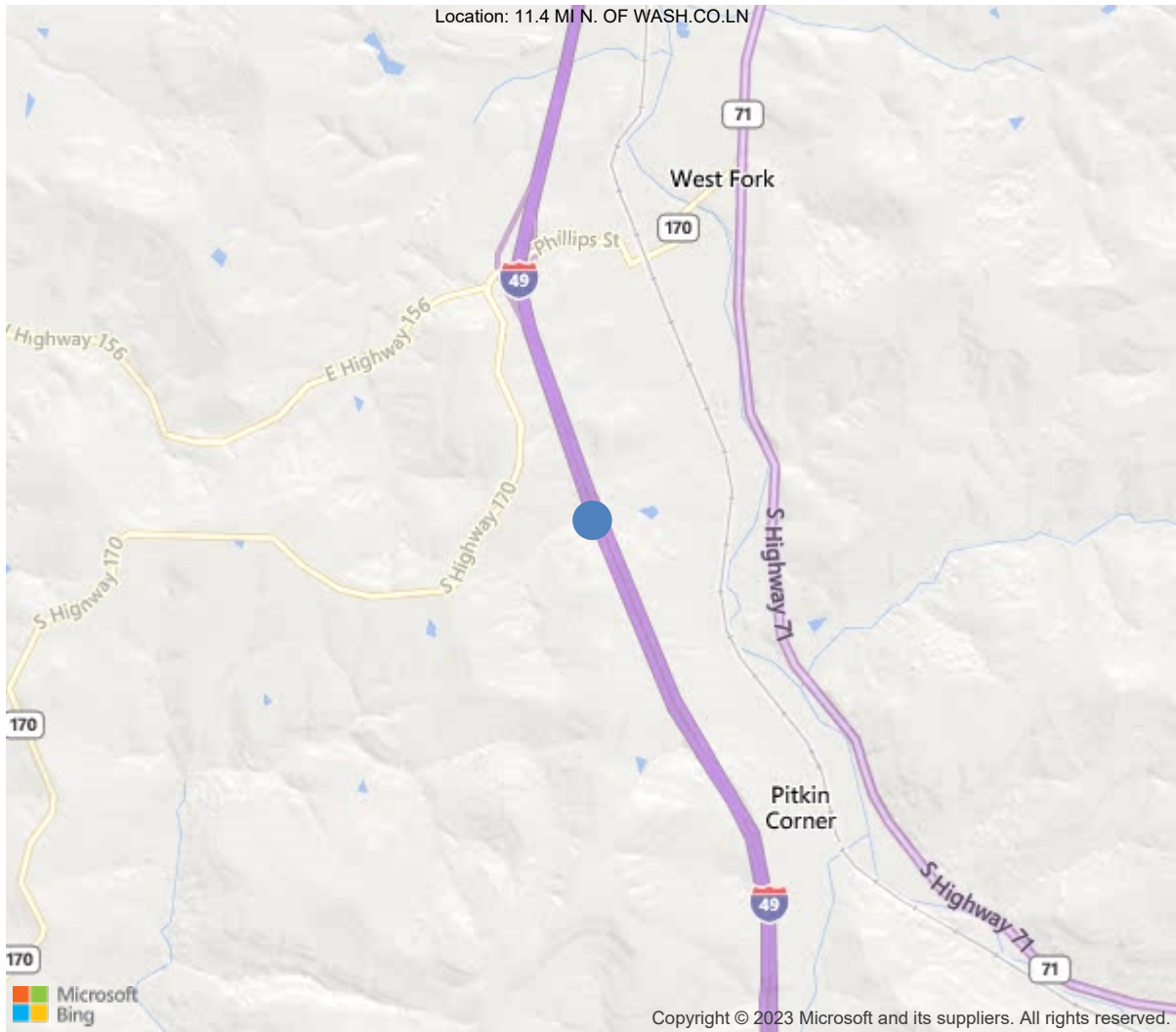
Latitude:35.90571, Longitude:-94.19302

Route:49 Section:28 Log:51.45

Arnold Road ID:72x49x28xB, Arnold Log mile:39.915

District 04, 143 - Washington County

Owner: 1 - State Highway Agency



35.90571, -94.19302



Asset #A6237 (Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.

Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A6237
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	143 - Washington County
(4) Place Code	0
(6) Features Intersected	Ravine-Washington Co.
(7) Facility Carried	I-49 Southbound
(9) Location	11.4 MI N. OF WASH.CO.LN
(11) Mile Point	51.45 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000049080
(16) Latitude	35.90571
(17) Longitude	-94.19302
(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	6
(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 pl
Type of Membrane	0 - None
Type of Deck Protection	1 - Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1994
(106) Year Reconstructed	0
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	2399
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	160 ft
(49) Structure Length	882 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)	40 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	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0 - No navigation control on w
(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	1
(26) Functional Class	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	L - The left structure of para
(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 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	5
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	8
(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	
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	7
(68) Deck Geometry	7
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(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	8 - Bridge foundations determined t
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	11252
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	12/12/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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.			



General Observation

12/12/2022 - EJW, JCJ, RSM, TJL & SPC - Routine and Underwater Type II Inspection conducted on this date from a Aspen Aerial Inspection truck. Element notes for the deck and the moveable bearings were lost during the duration of the inspection. Soundings were not taken at this inspection. 10/08&12 RSM, EJW, SPC, TJL: Routine inspection conducted. See element notes for documentation. NBI Condition Rating for item "59" lowered from "7" to "6" due to continued deterioration to ends of girders with initial section loss due to leaking joint seals discharging water the Superstructure. 10/23/2018 - TJL - Elements were plan verified on this date. 10/23/2018 - JCJ, EJW, JPW, & TJL - A Snooper inspection truck was used to gain access to the Superstructure and caps during this inspection. 10/23/2018 - JCJ, EJW, JPW, & TJL - Type 2 Underwater Inspection - Visual Observations from the snooper platform indicate that the substructure is not in the channel with no apparent scour problems during this inspection. 10/23/2018 - JCJ, EJW, JPW, & TJL - The ambient temperature is approximately 60 degrees Fahrenheit during this inspection. It appears that this structure does not have adequate room for expansion. Bent # 1 bearings appear to be fully expanded. Spalling in the deck, backwall, and approach slab at the South bridge end indicate there is contact. The Bent # 3 expansion joint is fully closed with radial cracking in the deck over Girder # 2 and spalling in the parapet walls. Bent # 7, North abutment, has spalling in the top of the back wall adjacent to the approach slab.

43B - Type of Design/Construction, Main (2 - Stringer/Multi-beam or girder)

Structure is a continuous plate girder - not a frame TEH 1-4-2022

59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

10/08/2020 - RSM - NBI Condition Rating for item "59" lowered from "7" to "6" due to continued deterioration to ends of girders with initial section loss due to leaking joint seals discharging water the Superstructure.

61 - Channel/Channel Protection (8 - Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.)

12/12/2022 - EJW - Underwater Type II Inspection conducted on this date. Visual observations from the snooper platform indicate the footings have cover with no substructure in the water.

A-15 - Late Reason (Optimize Schedule)

12/12/2022 - EJW - Inspected late due to heavy workload.

A-46 - Asset Files

-

A-54 - Sealable Deck Cracks (Y)

Deck - The driving surface of the deck has sealable transverse, longitudinal, and map cracking. The metal stay in place forms on the undersurface of the deck have areas of active corrosion with rust forming.

A-56 - Joint Cleaning/Flushing Needed (Y)

The rubber troughs under the assembly joints at both abutments and bent # 3 are partially filled with debris accumulation.



Asset #A6237 (Routine, Underwater type 2)

District: 04, County: 143 - Washington County

Team Lead: Eric West, Inspection Date: 12/12/2022

A-57 - Beam End and Bearing Painting Needed (Y)

Superstructure -

The ends of the girders at Bents # 1, 3, & 7 are weathering abnormally and have layers of flaking rust forming. Span # 1, girder # 2 at bent # 1 appears to be the most extreme case which has corrosion with flaking rust to base of web and bottom flange with up to approximately 1/16" section loss to base of web. The bearings have corrosion with flaking rust in some locations. Leaking expansion joint seals appear to be discharging water on the ends of the the girders and bearings.

A-59 - Joint Repair Needed (Yes)

Sawn Joint Seals -

The sawn joint sealant is deteriorated and missing in locations.



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I-49 Southbound over Ravine-Washington Co.
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Team Lead: Eric West, Inspection Date: 12/12/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	37034	18535	17747	614	138
1080	Delamination/Spall/Patched Area	SF	22	0	10	12	0
1090	Exposed Rebar	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	320	0	320	0	0
1130	Cracking (RC and Other)	SF	5070	0	4330	602	138
1190	Abrasion/Wear (PSC/RC)	SF	13086	0	13086	0	0
(12) -The driving surface of the deck has sealable transverse, longitudinal, and map cracking. -There are 4 full length longitudinal cracks that appear to be over the exterior edges of the top flange of Girders # 2 and 3. -The driving surface of the deck has light wear with numerous pop outs due to shale inclusion in the concrete from the construction process. -The metal stay in place forms on the undersurface of the deck have areas of active corrosion and rust beginning to form. -The saw joint sealant has areas that are beginning to lose bond with the deck and leak. -Bent # 3 has an area of concrete cracking on either side of the expansion joint assembly adjacent to the white line in the Left travel lane. -No apparent changes in the circular cracking at Bent # 3 over Girder # 2 since the last inspection. -Span # 1, left side at abutment # 1 has an a 3' long area of spalling with no exposed reinforcing steel in deck undersurface that appears to be from the deck making contact with the abutment backwall. The right side has a 12" spall with no exposed reinforcing steel. -Span # 1 has an approximately 5' long x 11"-16" wide full depth void in the deck adjacent to the expansion joint. The concrete has rubbelized and only reinforcing steel remains.							
107	Steel Open Girder/Beam	LF	3520	3472	21	27	0
1000	Corrosion	LF	48	0	21	27	0
515	Steel Protective Coating	SF	66748	66247	231	151	119
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	LF	501	0	231	151	119
(107) A588 Weathering Steel- -The ends of girders over abutment # 1 have corrosion with thick flaking rust. Span # 1, girder # 2 over abutment # 1 appears to be the worst case with corrosion and flaking rust to base of web and bottom flange with up to approximately 1/16" section loss to base of web. -The splice plate connection for the bottom flange of girder # 1 of span # 1 has minor pack rust. -Span # 1, girder # 2 has corrosion with flaking rust to the base of web at the splice plate connection. -The girders have flaking rust on the bottom flanges, cross frame connections, web stiffeners, and the webs adjacent to the expansion joints where leaking seals discharge water on the ends of the Girders. -The undersurface of girder # 1 bottom flange of span # 2 has a 2" diameter imperfection located approximately 3' from bent # 2 that has approximately 1/8" section loss. -Beam # 2 & 4 at Bent # 3 has layers of flaking rust forming at the end of the girder below the expansion joint. Initial section loss possible at this inspection. -The ends of the girders over abutment # 2 are forming flaking rust. -The remaining length of girders are weathering normally and typically have a light rust coating.							
210	Reinforced Concrete Pier Wall	LF	70	48	19	3	0
1080	Delamination/Spall/Patched Area	LF	5	0	2	3	0
1130	Cracking (RC and Other)	LF	17	0	17	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<p>(210) This element is for documenting the condition of the columns in accordance with the current Arkansas Bridge Inspection Manual Guidelines.</p> <p>-The columns have a few hairline shrinkage cracks.</p> <p>-The base of column # 2 has two 5" shallow spalls with no exposed reinforcing steel in the Southeast edge.</p> <p>-The base of bent # 3 column has three hairline vertical cracks visible on both sides of column and hairline mapcracking in the left exterior face.</p> <p>-The lower portion of column # 4 has two hairline vertical cracks visible on both sides of column and a shallow 4" spall with no exposed reinforcing steel in the Northeast corner located approximately 6' from base.</p> <p>-Bent # 5 column has hairline horizontal and vertical cracking visible in lower portion of column. The Northwest edge of column has a repaired area located approximately 10' above ground level. Repaired area appears to be sound at this inspection.</p> <p>-The base of column # 6 has a 10" shallow spall with no exposed reinforcing steel in the Northwest edge and a 3' high x 6" wide shallow spall in the Southeast edge. The column has areas of hairline horizontal and vertical cracking.</p>							
215	Reinforced Concrete Abutment	LF	198	156	26	16	0
1080	Delamination/Spall/Patched Area	LF	36	0	21	15	0
1090	Exposed Rebar	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	5	0	5	0	0
<p>(215) Abutment # 1 South abutment -</p> <p>-The top of the backwall has had numerous repairs with spalling and delaminated areas that are visible from the driving surface of the deck. Some of these repairs have failed.</p> <p>-Span # 1, left side at abutment # 1 has an a 3' long area of spalling with no exposed reinforcing steel in deck undersurface that appears to be from the deck making contact with the abutment backwall.</p> <p>Abutment # 2 North Abutment -</p> <p>-There is an 8" spall with exposed reinforcing steel with vertical cracking in the Left end adjacent to the wing wall juncture.</p> <p>-Abutment # 2 has a deep 15' long spall adjacent to the expansion joint anchorage near the centerline of the structure. Spalls have temporary asphalt repairs at this inspection. One of the spalls was previously documented as having exposed reinforcing steel.</p> <p>-Abutment # 2 vertical face of the bridge seat has one moderate width vertical crack under girder # 2.</p>							
<p>10/30/2012 - EJW - The repairs to the backwall at Bent # 1 are showing signs of deterioration. No apparent repairs since the last inspection.</p> <p>Bent # 1 has concrete spalling and deterioration in the top of the backwall adjacent to the approach slab. This deficiency was first documented in the 06/06/2000 report. Repairs made by maintenance forces are beginning to deteriorate. Bridge deck may be making contact with the backwall during the hottest months of the summer. Contact points may be hidden from view by the sliding plate and the drainage trough. Areas of shallow spalling are now visible between the superstructure and the abutments.</p>							
234	Reinforced Concrete Pier Cap	LF	190	147	41	2	0
1090	Exposed Rebar	LF	2	0	0	2	0
1120	Efflorescence/Rust Staining	LF	2	0	2	0	0
1130	Cracking (RC and Other)	LF	39	0	39	0	0
<p>(234) -Concrete caps have minor vertical cracking at each step and at the cantilevered portion of cap and column juncture. No significant change since last inspection.</p> <p>-Bent # 3 cap has two 6" spalls with exposed reinforcing steel between girders 1 & 2 in the Span # 3 side of cap.</p> <p>-Bent # 4 cap at centerline has a vertical crack that measures 0.040" in width with no apparent changes in the past several inspections.</p> <p>-Bent # 5 & 6 cap has a vertical crack at the centerline has light efflorescence buildup.</p>							



Asset #A6237 (Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.
Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
301	Pourable Joint Seal	LF	22	0	0	0	22
2310	Leakage	LF	9	0	0	0	9
2330	Seal Damage	LF	8	0	0	0	8
2360	Adjacent Deck or Header	LF	5	0	0	0	5
(301) -Span # 1 has an approximately 5' long x 11"-16" wide full depth void in the deck adjacent to the expansion joint. The concrete has rubbelized and only reinforcing steel remains.							
305	Assembly Joint without Seal	LF	107	38	67	2	0
2360	Adjacent Deck or Header	LF	9	0	7	2	0
2370	Metal Deterioration or Damage	LF	60	0	60	0	0
(305) Abutment # 1 - -Maintenance forces have removed portions of the sliding plate expansion joint as a type of repair in the past. -There are numerous patched areas. -South abutment has concrete cracking and spalling at the expansion joint anchorage. Bent # 3- -Circular cracking around the expansion device with no apparent change since the last inspection. -The expansion joint is fully closed on the right side. Abutment # 2 - -Abutment # 2 has a deep 15' long spall adjacent to the expansion joint anchorage near the centerline of the structure. Spalls have temporary asphalt repairs at this inspection. One of the spalls was previously documented as having exposed reinforcing steel.							
311	Movable Bearing	EA	16	2	8	2	4
1000	Corrosion	EA	7	0	5	2	0
1020	Connection	EA	3	0	3	0	0
2220	Alignment	EA	4	0	0	0	4
515	Steel Protective Coating	SF	112	86	5	16	5
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	EA	26	0	5	16	5
(311) -The bolt on the exterior side of the sole plate connection has sheared off at beam # 1, abutment # 1. -The bearings at abutment # 1 are fully expanded during this inspection with an approximate temperature of 48 degrees Fahrenheit. The left anchor bolts are sheared off at bearings # 2 and # 3 at abutment # 1. The remaining anchor bolts are leaning out of plumb. -The anchor bolt at abutment # 1, beam # 2 is cracked just below the anchor nut on top of the rocker. -Bent # 3, Girder # 4, Spans # 2 & 3 bearings have active corrosion with minor flaking rust. The bearings in both Spans at Bent # 3 appear to be slightly expanded during the time of inspection. -Bearings # 1, 3, & 4 at abutment # 2 have a missing anchor bolt nut. History Note - Bent # 1 bearings appear to be fully expanded at 72 degrees Fahrenheit. History files and photographs indicate that the bearings at Bent # 1 have been expanded since 06/06/2000 report. No significant change to expansion bearings at this inspection.							
313	Fixed Bearing	EA	16	14	2	0	0
1020	Connection	EA	2	0	2	0	0
515	Steel Protective Coating	SF	40	40	0	0	0

Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, **Inspection Date:** 12/12/2022

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Asset #A6237(Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.



Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	3520	3472	21	27	0
1000	Corrosion	LF	48	0	21	27	0
515	Steel Protective Coating	SF	66748	66247	231	151	119
3430	Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)	LF	501	0	231	151	119
(107) A588 Weathering Steel- -The ends of girders over abutment # 1 have corrosion with thick flaking rust. Span # 1, girder # 2 over abutment # 1 appears to be the worst case with corrosion and flaking rust to base of web and bottom flange with up to approximately 1/16" section loss to base of web. -The splice plate connection for the bottom flange of girder # 1 of span # 1 has minor pack rust. -Span # 1, girder # 2 has corrosion with flaking rust to the base of web at the splice plate connection. -The girders have flaking rust on the bottom flanges, cross frame connections, web stiffeners, and the webs adjacent to the expansion joints where leaking seals discharge water on the ends of the Girders. -The undersurface of girder # 1 bottom flange of span # 2 has a 2" diameter imperfection located approximately 3' from bent # 2 that has approximately 1/8" section loss. -Beam # 2 & 4 at Bent # 3 has layers of flaking rust forming at the end of the girder below the expansion joint. Initial section loss possible at this inspection. -The ends of the girders over abutment # 2 are forming flaking rust. -The remaining length of girders are weathering normally and typically have a light rust coating.							

59 - Superstructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Comment: 10/08/2020 - RSM - NBI Condition Rating for item "59" lowered from "7" to "6" due to continued deterioration to ends of girders with initial section loss due to leaking joint seals discharging water the Superstructure.

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Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
<ul style="list-style-type: none">-Bent # 3 cap has two 6" spalls with exposed reinforcing steel between girders 1 & 2 in the Span # 3 side of cap.-Bent # 4 cap at centerline has a vertical crack that measures 0.040" in width with no apparent changes in the past several inspections.-Bent # 5 & 6 cap has a vertical crack at the centerline has light efflorescence buildup.							

61 - Channel/Channel Protection (8 - Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.)
Comment: 12/12/2022 - EJW - Underwater Type II Inspection conducted on this date. Visual observations from the snooper platform indicate the footings have cover with no substructure in the water.



Asset #A6237(Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.

Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Elevation



Roadway



Driving surface of the deck. Typical.



Abutment #1 typical.



Bent #2 typical.



Bent #3 typical.



Bent #4 typical.



Bent #5 typical.



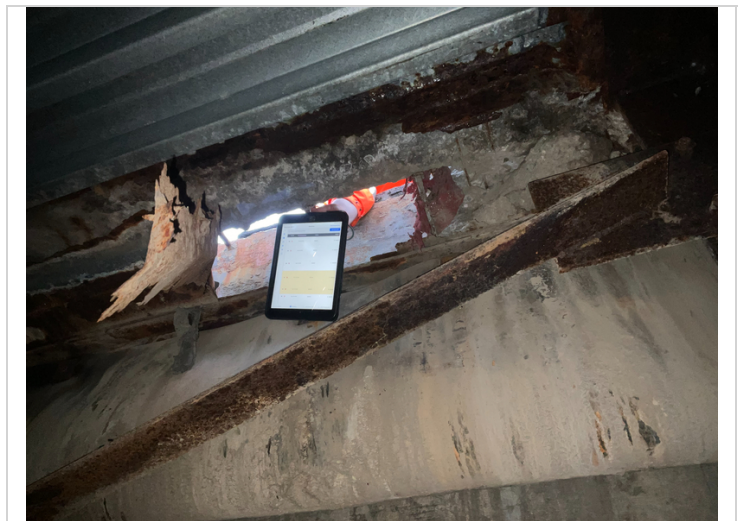
Bent #6 typical.



Abutment #2 typical.



Footing has cover.



Abutment # 1 rubberized expansion dam.



Span #3 bay #1 active corrosion in the stay in place forms.



Sealable longitudinal cracking in driving surface of span 6.



Wide transverse cracking in the driving surface of span 3.



Expansion joint over Bent 3. Circular cracking adjacent to joint.



Span 1. Wide transverse and longitudinal cracks.



Spalling with exposed reinforcing steel adjacent to the south abutment.



Span #1 girder #2 active corrosion with pack rust along the base of the web.



Span #1 girder #2 active corrosion with pack rust along the base of the web.



Bent #3 beam #2 active corrosion with flaking rust at the top of the web.



Abutment #2 Lt spalling with exposed reinforcing steel.



Abutment 2. Top of backwall. Spalling with temporary asphalt repairs.



Bent 1. Top of backwall. Failing repairs.



Bent #2 missing anchor bolt nuts.



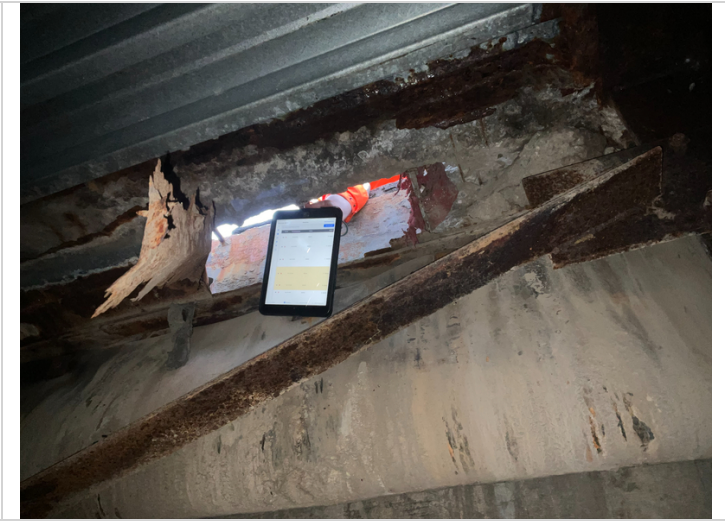
Span #3 bay #1 spalling with exposed reinforcing steel.



Bent #4 cap cracking.



Abutment # 1 section of the road iron fractured.



Abutment # 1 rubbelized expansion dam.



The expansion joint anchorage at bent 1 has fractured and is no longer supported by the deck for several feet.



Bent #3 expansion dam with active corrosion and flaking rust.



Bent #3 Lt expansion joint jammed together and touching.



Bent #3 trough with debris accumulation.



Bent 3. Right side of expansion joint is closed.



Bent 3. Circular cracking with spalling adjacent to the expansion joint assembly.



Abutment #1 bearings fully expanded.



Abutment #1 bearing #2 missing anchor bolt.



Bent #3 bearing #4 active corrosion with flaking rust.



Abutment #2 active corrosion with pack rust.



Abutment #2 girder #1 missing anchor bolt nut.



North approach slab. Sealable map cracking.



South approach slab. Temporary asphalt repairs.



Right parapet. Map cracking with efflorescence adjacent to the north abutment.



Spans 2 & 3. Spalling with exposed reinforcing in the left parapet over bent 3.



Wide longitudinal cracking in the top of the left parapet.
Span 3.



Spall with exposed reinforcing steel in the left parapet over
bent 1.

Maintenance Needs

Date Reported: 12/12/2022

Priority: CF - Critical Finding - Immediate

Type of Work: Deck Repair

Status: Open

Component: Deck

Deficiency Description

R.C. Deck-

There is a full depth failure at the south end of span 1 in the left lane adjacent to the south abutment. The expansion joint anchorage in the left lane at abutment 1 has fractured and is no longer supported by the adjacent deck, approximately 3' section of the road iron is missing. There is an approximately 16" gap from the concrete on the deck to the concrete in the abutment backwall.

Remarks

12/12/2022 - EJW - Marcus Rainwater notified at approximately 4:15pm on this date, lane closure left in place until repairs are completed.



There is a full depth failure at the south end of span 1 in the left lane adjacent to the south abutment. The expansion joint anchorage in the left lane at abutment 1 has fractured and is no longer supported by the adjacent deck. There is an approximately 16" gap from the concrete on the deck to the concrete in the backwall.



Undersurface of the full depth failure in span 1. Bay 2.

Maintenance Needs

Date Reported: 12/12/2022

Priority: A - Safety deficiency; requires prompt action

Status: Open

Type of Work: Approach Leveling/Maintenance

Component: Approach

Deficiency Description

Approach Roadway-

The approach roadway at the north end of structure is settling and breaking apart.

Remarks

12/12/2022 - EJW - Marcus Rainwater was notified of the approach slab issues and he indicated he would inform Chad Davis of this deficiency.



North approach roadway concrete breaking apart and settlement.



Approach roadway at the north end of structure is settling and breaking apart.

Maintenance Needs

Date Reported: 10/31/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Bearings -

The expansion bearings at the South abutment are fully expanded. Girders # 1 and # 2 at abutment # 1 have a sheared off bolt that attaches the sole plate to the bearing device.

The left anchor bolts for bearings # 2 and # 3 at the South abutment are sheared off. The remaining anchor bolts are leaning out of plumb.

Remarks



Abutment #1 bearings fully expanded.



Abutment 1 bearing area.



The bearings at abutment # 1 are fully expanded during this inspection with an approximate temperature of 80 degrees Fahrenheit. The left anchor bolts are sheared off at bearings # 2 and # 3 at abutment # 1. The remaining anchor bolts are leaning out of plumb.



Abutment # 1, bearing 1-Fully expanded with sheared off bolt that attaches girder to bearing device.

Maintenance Needs

Date Reported: 10/31/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Repair Documented

Component: Element

Deficiency Description

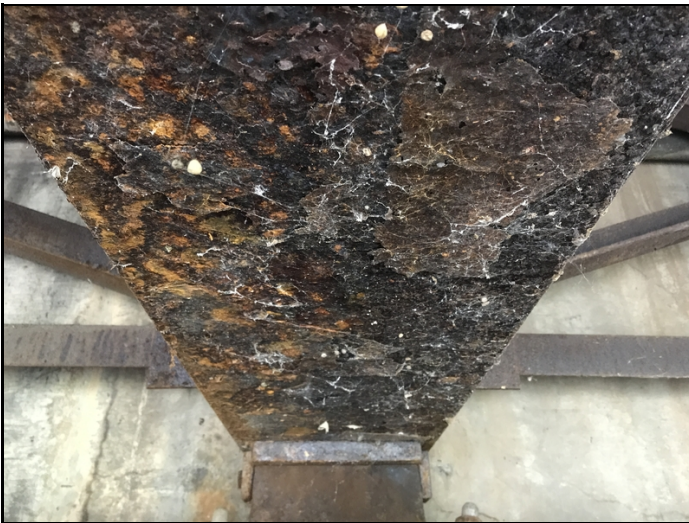
Superstructure -

The ends of the girders at Bents # 1, 3, & 7 are weathering abnormally and have layers of flaking rust forming. Span # 1, girder # 2 at bent # 1 appears to be the most extreme case which has corrosion with flaking rust to base of web and bottom flange with up to approximately 1/16" section loss to base of web. The bearings have corrosion with flaking rust in some locations. Leaking expansion joint seals appear to be discharging water on the ends of the the girders and bearings.

Remarks

12/12/2022 - EJW - This maintenance need is now being documented under the Routine Maintenance tab A-57.

10/08/2020 - RSM - Priority changed from "D" to "C" due to continued deterioration to the ends of Girder with initial section loss in some locations.



Span 1, girder 2 at bent # 1-Corrosion with flaking rust to bottom flange undersurface.



Span 1, girder # 2 at bent # 1-Corrosion with flaking rust.



Abutment 1-Bearing 2-Corrosion.



Span # 1, girder # 2 at bent # 1 has corrosion with flaking rust to base of web and bottom flange with up to approximately 1/16" section loss to base of web.



Span 2, Girder 2 at bent 3-Corrosion with flaking rust.

Maintenance Needs

Date Reported: 10/20/2014

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Bridge Ends -

The South approach slab has spalled areas adjacent to deteriorated repairs with temporary asphalt patches.

There is spalling with delaminated areas in the top of the back walls of the both abutments. Abutment # 2 backwall has a 5' long spall in the outside lane and a 10' spall in the inside lane.

There is spalling in the deck adjacent to the expansion joint.

Remarks



Abutment 2-Spalling in backwall with asphalt patches.



Abutment 1.



Spalls in the top of the backwall. Abutment 2.



South approach slab. Deteriorating repairs.

Maintenance Needs

Date Reported: 10/31/2012

Priority: D- Routine

Type of Work: Repair (General)

Status: RepairDocumented

Component: Element

Deficiency Description

Deck -

The driving surface of the deck has sealable transverse, longitudinal, and map cracking. The metal stay in place forms on the undersurface of the deck have areas of active corrosion with rust forming.

Remarks

12/12/2022 - EJW - This maintenance need is now being documented under the Routine Maintenance tab A-54.



Span 2, bay 3-Corrosion in SIP forms.



Span 3, left lane-Wide transverse cracking.



Span 4, left lane-Longitudinal cracking.



Sealable longitudinal and transverse cracks in the driving surface of the deck.



Sealable longitudinal cracking in the driving surface of span 5.



Span 1. Sealable longitudinal and transverse cracking in the driving surface of the deck.

Maintenance Needs

Date Reported: 11/16/2016

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 9 - None

Status: RepairDocumented

Component: Element

Deficiency Description

Sawn Joint Seals -

The sawn joint sealant is deteriorated and missing in locations.

Remarks

12/12/2022 - EJW - This maintenance need is now being documented under the Routine Maintenance tab A-59.



The sawn joint sealant is deteriorated and missing in locations.



Saw joint sealant is deteriorated and missing in areas.

Maintenance Needs

Date Reported: 11/16/2016

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Concrete Bridge Railing -

There is concrete spalling on the left side of Bents # 1 & 3 where the parapet wall appears to be making contact at the expansion joints. The upper portion of the left bridge railing at bent # 3 has apparent collision damage with spalling.

Remarks



Left parapet at span 1-Spalling.



Left parapet over bent 3-Collision damage.



Spalls with exposed reinforcing steel in the left parapet over bent 3.

Maintenance Needs

Date Reported: 10/16/2020

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Monitor

Component: Channel

Deficiency Description

Embankment -

The Southwest embankment (Left side of Span # 1) has a tree growing under the structure that restricts inspection access with the Under Bridge Inspection Vehicle.

Remarks



The Southwest embankment (Left side of Span # 1) has a tree growing under the structure that restricts inspection access with the Under Bridge Inspection Vehicle.

Maintenance Needs

Date Reported: 12/12/2022

Priority: D- Routine

Type of Work: Approach Leveling/Maintenance

Status: Open

Component: Element

Deficiency Description

R.C. Approach Slab-

The north approach slab is beginning to break apart adjacent to the north abutment.

Remarks



The north approach slab adjacent to the north abutment is beginning to break apart.

Maintenance Needs

Date Reported: 10/23/2018

Priority: (Inactive) (Inactive) G - General/
Preventive maintenance

Status: Monitor

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

Superstructure-

The ambient temperature is approximately 80 degrees Fahrenheit during this inspection. It appears that this structure does not have adequate room for expansion. Abutment # 1 bearings appear to be fully expanded. Spalling in the deck, backwall, and approach slab at the South bridge end indicate there is contact. The Bent # 3 expansion joint is fully closed with radial cracking in the deck over Girder # 2 and spalling in the parapet walls. Bent # 7, North abutment, has spalling in the top of the back wall adjacent to the approach slab.

Remarks

12/12/2022 - EJW - Ambient temperature was approximately 48 degrees at the time of inspection, bearings were in the expanded position at this inspection. No apparent repairs since the last inspection.



Abutment #1 bearings fully expanded.



Span 1, left side at abutment 1-Spalling in deck undersurface.



Bent 3, left lane-Wide cracking adjacent to sliding plate assembly.



Abutment 1 bearing area.

Maintenance Needs

Date Reported: 10/15/2020

Priority: (Inactive) (Inactive) G - General/
Preventive maintenance

Type of Work: Repair (General)

Status: Monitor

Component: Superstructure

Deficiency Description

Bearings -

The bearings at abutment # 2 and bent # 2 have several missing anchor bolt nuts.

Remarks



Abutment #2 girder #1 missing anchor bolt nut.



One anchor bolt nut is missing at bearings # 2 and # 3 over bent # 2.



Bearings # 1, 3 and 4 at abutment # 2 are missing one anchor bolt nut.



Asset #A6237(Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.

Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
A-55 - Deck Washing Needed	Yes
A-56 - Joint Cleaning/Flushing Needed	Yes
A-57 - Beam End and Bearing Paint Needed	Yes
A-58 - Cap Cleaning/Flushing Needed	Yes
A-59 - Joint Repair Needed	Yes
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	Yes
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

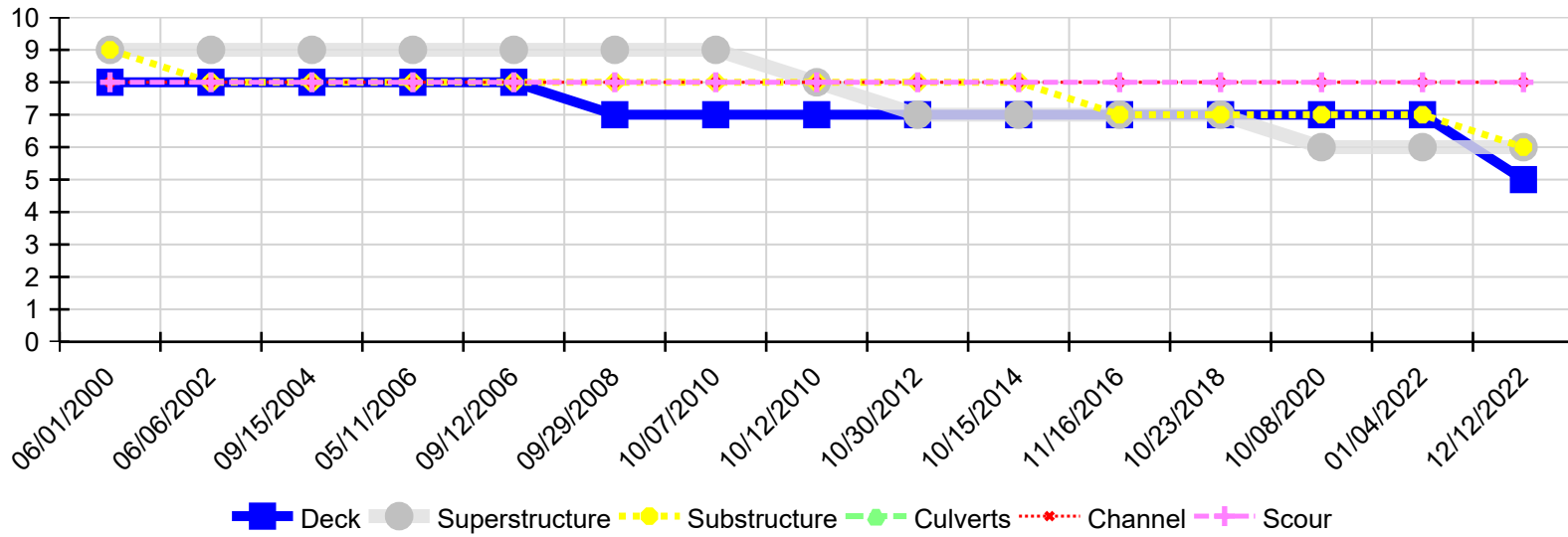


Asset #A6237(Routine, Underwater type 2)
I-49 Southbound over Ravine-Washington Co.

Location: 11.4 MI N. OF WASH.CO.LN

Team Lead: Eric West, Inspection Date: 12/12/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
12/12/2022	5	6	6	N	8	8
01/04/2022	7	6	7	N	8	8
10/08/2020	7	6	7	N	8	8
10/23/2018	7	7	7	N	8	8
11/16/2016	7	7	7	N	8	8
10/15/2014	7	7	8	N	8	8
10/30/2012	7	7	8	N	8	8
10/12/2010	7	8	8	N	8	8
10/07/2010	7	9	8	N	8	8
09/29/2008	7	9	8	N	8	8
09/12/2006	8	9	8	N	8	8
05/11/2006	8	9	8	N	8	8
09/15/2004	8	9	8	N	8	8
06/06/2002	8	9	8	N	8	8
06/01/2000	8	9	9	N	8	8