

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East



**General Bridge Data**

(22) Owner	County Hwy Agency
(6A) Feature Intersected	BITTERROOT RIVER 010
(9) Location	W MISSOULA
(MDT058) Bridge Condition	3-Poor
(SR) Sufficiency Rating	26.30
(27) Year Built	1935
(58) Deck Rating	5 Fair
(59) Superstructure	4 Poor
(60) Substructure	5 Fair
(61) Channel	7 Minor Damage
(62) Culvert	N N/A (NBI)
(MDT145) Inv Direction:	West to East

**Location Data**

(MDT001) Agency Structure Name	LB-01 MACLAY BRIDGE	(MDT031) Railroad Over/Underpass	0 - Not Applicable
(001A) FIPState	30 Montana	(MDT032) Railroad Owner	NA - Not Applicable
(001B) FHWA Region	Region 8-Denver	(MDT014) Interchange Indicator	0 - Not an Interchange
(MDT027) On/Off System	Off System	(MDT015) Interstate Ramp Indicator	0 - Not a Ramp
(112) NBIS Bridge Length	Long Enough	(MDT078) Maintenance Section	none - Not a State Maint
(2) MDT Inspection District	01 - MISSOULA	(MDT020) Maintenance Division	11 - MISSOULA
(3) County Code	063 - MISSOULA	(MDT146) Reservation Boundary	1 - No
(4) Place Code	Rural Area	(MDT115) Administrative District	1 - Missoula
(7) Facility Carried by Structure	NORTH AVE W	(MDT116) Financial District	1 - Missoula
(21) Maintenance Responsibility	County Hwy Agency	(MDT117) Neighbor County Code	000 - NONE

**Bridge GIS Location**

(16) Latitude (DMS)	46d 51' 11.28"	(17) Longitude (DMS)	-114d 05' 52.44"
Precise Latitude	46.853133	Precise Longitude	-114.097900

**Construction Data**

(27) Year Built	1935	(MDT017) MDT Original Construction Project	
(106) Year Reconstructed	1964	(MDT099) MDT Rehab Proj Nbrs	
(MDT102) Year Rehabilitated		(MDT018) MDT Original Construction Station	+0
(MDT019) MDT Original Drawing Number		(MDT100) MDT Rehab Stations	
(MDT103) MDT Rehab Drawing Nbrs		(MDT021) MDT UPN	
(MDT097) Plans in SMS?	Y - Yes	(MDT101) MDT Rehab UPNs	
(MDT098) Shop Drawings in SMS?			

**Span and Dimensional Data**

(33) Bridge Meridian	0 No median	(101) Parallel Structure Designation	No    bridge exists
(34) Skew	0	(103) Temporary Structure Designation	Not Temporary
(35) Structure Flared	0 No flare	(38) Navigation Control	Permit Not Required
(42A) Type of Service on Bridge	1 Highway	(39) Navigation Vertical Clearance	0.0 ft
(48) Length of Maximum Span	180.0 ft	(40) Navigation Horizontal Clearance	0.0 ft
(49) Structure Length	345.9 ft	(116) Minimum Navigation Vertical Clearance	ft
(53) Min Vertical Clearance over Bridge Roadway	14.2 ft	(MDT008) Depth of Cover	2.00 in



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**Main Span**

(43A) Main Span Material	3 Steel	(45) Number of Main Spans	2
(43B) Main Span Design Type	10 Truss-Thru		

**Approach Span**

(44A) Approach Span Material	5 Prestressed Concrete	(46) Number of Approach Spans	2.00
(44B) Approach Span Design Type	04 - Tee Beam		

**Deck Information**

(50A) Left Curb/Sidewalk Width	0.0 ft	(107) Deck Structure Type	6 Corrugated Steel
(50B) Right Curb/Sidewalk Width	0.0 ft	(108A) Type of Wearing Surface	6 Bituminous
(52) Out-to-Out Deck Width	16.0 ft	(108B) Type of Membrane	0 None
(MDT006) Deck Area	5,534.40 sq ft	(108C) Deck Protection	None

**Under Bridge Service**

(42B) Type of Service Under	5 Waterway	(55B) Min Lat Underclear on Rt	0.0 ft
(54A) Min Vert Underclear - Ref Feat	N Feature not hwy or RR	(56) Min Lat Underclear on Lt	0.0 ft
(54B) Min Vertical Underclearance	0.0 ft	(111) Pier/Abutment Protect	1 Not Required
(55A) Min Lat Underclear on Rt Ref Feat	N Feature not hwy or RR	(113) Scour Critical Status	7 Countermeasures

**General Bridge Notes**

Bridge labeled west to east, Abutment 1, Bents 2-5, and Abutment 5. Truss panel points labeled L0-L4-L0' (Span 1) and L0-L3-L0' (Span 2). Stringers labeled north to south, 1-8.

10-19-2021: after phone conversation with County about concerns at bent 1 in the stringer section loss, data updated: stingers 2, 4 (new) and 7 have 100% section loss for between 8-12 inches from the end of the stringer aol, between 4-6 inches of solid stringer rest on the cap ahead of the section loss. will increase cs 4 in for defect 1000-element 113. New total quantity 6lf, no other stinger section loss was seen during data update inspection Kurt Maart mdt.

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**Roadway Information (Route On Structure)**

**Identification**

(MDT035) Road Name	NORTH AVE WEST	(6B) Critical Facility Indicator	
(5A) Inventory Route - Record	Route On Structure	(MDT087) Mile Post	.099
(5B) Route Signing Prefix	4 County Hwy	(5D) Route Number	32101
(5C) Designated Level of Ser	1 Mainline	(MDT007) Departmental Route	L32101
(5E) Directional Suffix	3 South		

**Traffic Data**

(28A) Lanes on the Structure	1	(29) Average Daily Traffic	3,605	(114) Future Average Daily Traffic	3,839
(28B) Lanes Under the Structure	0	(30) Year of Average Daily Traffic	2022	(115) Year of Future Avg Daily Traffic	2042
(MDT030) Roadway Speed	35	(109) Average Daily Truck Traffic (%)	3		

**Roadway Clearances**

(10) Minimum Vertical Clearance	14.16 ft	(72) Approach Roadway Alignment	3 Intolerable - Correct
(47) Total Horizontal Clearance	14.00 ft	(42B) Type of Service Under	5 Waterway
(32) Approach Roadway Width	20.00 ft	(51) Bridge Roadway Width Curb-to-Curb	14.00 ft

**Highway Networks and Service Classification**

(12) Base Highway Network	Not on Base Network	(20) Toll	3 On free road
(11) Accumulated Miles	0.00	(26) Functional Classification	08 Rural min Collector
(13A) LRS Number	C032101A	(102) Direction of Traffic	3 1-lane Br for 2-way

**Alternate Classifications**

(100) STRAHNET Highway Designation	0 Not a STRAHNET hwy	(110) National Truck Network	0 Not part of natl netwo
(104) NHS Indicator	0 Not on NHS	(105) Federal Lands Highways	0 N/A (NBI)

**Detour**

(19) Bypass/Detour Length	11.00 mi	(MDT009) Detour Speed	mi/hr
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**Load Rating**

Event Name: INIT03719 Rating Date: 12/27/2019

Load Rater: Brett Canimore Reviewer:

Software Used: AASHTOWare BrR Secondary Software:

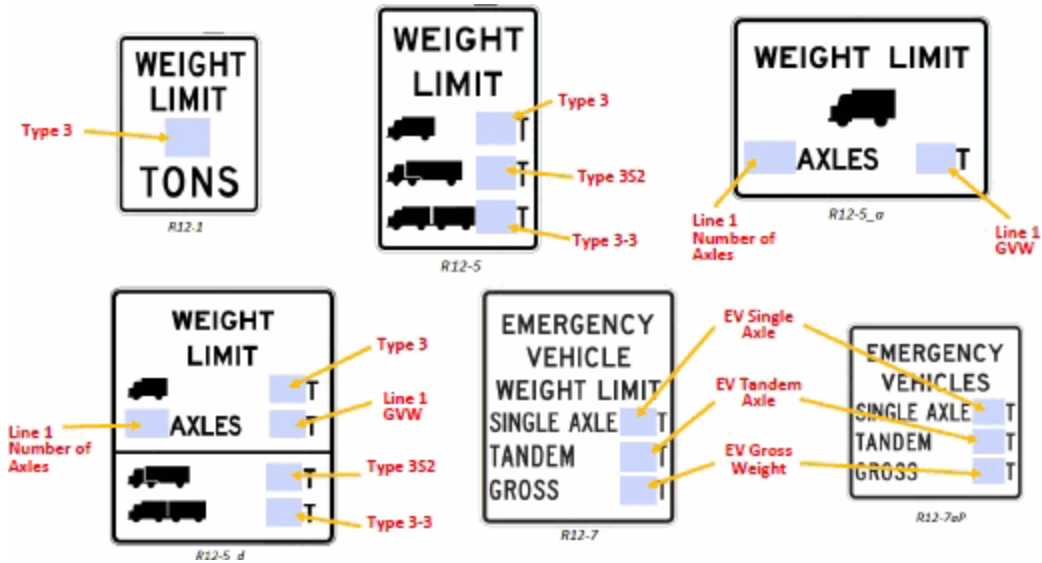
Notes: Transferred from SMS

Wearing Surface or Fill Depth: Category: Routine

Vehicle Name	Current	Load Rating (Tons)	Method	Analysis	Limit State	Location	Notes
HS 20-44 Inventory	T	15.00	1 LF Load Factor	Design	NA		SMS Design Transfer
HS 20-44 Operating	T	25.00	1 LF Load Factor	Design	NA		SMS Design Transfer
Type 3 Inventory Rating	T	13.00	1 LF Load Factor	Legal	NA		Transferred from SMS
Type 3 Operating Rating	T	21.00	1 LF Load Factor	Legal	NA		Transferred from SMS
Type 3S2 Inventory Rating	T	19.00	1 LF Load Factor	Legal	NA		Transferred from SMS
Type 3S2 Operating Rating	T	31.00	1 LF Load Factor	Legal	NA		Transferred from SMS
Type 3-3 Inventory Rating	T	24.00	1 LF Load Factor	Legal	NA		Transferred from SMS
Type 3-3 Operating Rating	T	41.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU4 Inventory Rating	T	11.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU4 Operating Rating	T	19.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU5 Inventory Rating	T	12.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU5 Operating Rating	T	20.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU6 Inventory Rating	T	12.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU6 Operating Rating	T	21.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU7 Inventory Rating	T	14.00	1 LF Load Factor	Legal	NA		Transferred from SMS
SU7 Operating Rating	T	23.00	1 LF Load Factor	Legal	NA		Transferred from SMS
EV2 Inventory Rating	T	11.00	1 LF Load Factor	Legal	NA		Transferred from SMS
EV2 Operating Rating	T	19.00	1 LF Load Factor	Legal	NA		Transferred from SMS
EV3 Inventory Rating	T	12.00	1 LF Load Factor	Legal	NA		Transferred from SMS
EV3 Operating Rating	T	20.00	1 LF Load Factor	Legal	NA		Transferred from SMS

**Load Posting Information**

Operational Status		Load Posting Requirements	
(41) Open/Posted/Closed	P Posted for load	(70) Legal Load Status	0 >39.9% below
(MDT135) Posting Sign Type	R12-1	Load Posting Authorization Date	
(MDT067) Type 3 Truck Posting	11	Required Posting Sign Type	
(MDT073) Truck 3S2 Posting		Required Type 3 Truck Posting	
(MDT070) Truck 3-3 Posting		Required Type 3S2 Truck Posting	
(MDT136) Line 1 Number of Axles Posting		Required Type 3-3 Truck Posting	
(MDT137) Line 1 GVW Posting		Required Line 1 Number of Axles Posting	
(MDT142) EV Single Axle Posting		Required Line 1 GVW Posting	
(MDT143) EV Tandem Axles Posting		Required EV Single Axle Posting	
(MDT144) EV Gross Weight Posting		Required EV Tandem Axles Posting	
(MDT148) Load Posting Basis	Unassigned	Required EV Gross Weight Posting	



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**Repair Suggestions**

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
	10/17/2017	Bearings	Repair Suggestion	High
<b>Comments</b>				
Both movable bearings on Abutment 1 need to be replaced/reset.				

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
	11/09/2017	Superstructure Rehabi	Repair Suggestion	High
<b>Comments</b>				
Shim stringer ends at Abutment 1 and Bent 3 to prevent vertical movement.				

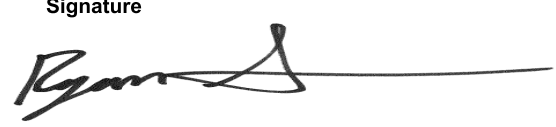

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
	11/09/2017	Compression Joint	Repair Suggestion	Low
<b>Comments</b>				
Replace joint seal above Bent 3				

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
	11/09/2017	Other	Repair Suggestion	Low
<b>Comments</b>				
Repair spalls with exposed steel reinforcement on curbs and bents on approach spans.				

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
	06/27/2019	Superstructure Rehabi	Repair Suggestion	Medium
<b>Comments</b>				
Replace the broken stringer bearing tube anchor rod at the south end of Bent 3 (see Span 2 Stringer Connection Defect for photo).				

<b>Recommended By:</b>	<b>Date Recommended</b>	<b>Type</b>	<b>Status</b>	<b>Suggested Priority</b>
Aric Jensen	06/28/2023	Deck Replacement	Repair Suggestion	Medium
<b>Comments</b>				
Replace the deck and wearing surface.				

**Inspection Activities**

<b>Inspector</b> Ryan Sievers	<b>Signature</b> 			
<b>Start Date</b> 06/28/2023	<b>End Date</b> 06/28/2023	<b>Weather</b> Rain	<b>Temperature</b> 65	<b>Comments</b> Team Leader: Ryan Sievers Team Members: Michael Feilbach, Aric Jensen, Noah Boehnen
<b>Quality Control Reviewer</b> Todd Demski				

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**Inspection Information**

**Inspection Notes**

Fracture Critical and Routine Inspection performed using rope access techniques with substructure units labeled west to east. The river flowed south to north.

NBI 59 - Superstructure reduced from 5 to 4 due to widespread section loss in floor beams and stringers.

Fickett notified Henry Henning at MDT via email on June 30th on widespread corrosion with section loss to floor beams that was not previously documented in addition to section loss and through holes on stringers that was previously found. Mr. Henning set MDT034 – Request Review of Load Rating to “Yes – Change in Condition” with accompanying notes.

	<b>Current Inspection (06/28/2023)</b>	<b>Previous Inspection (06/21/2021)</b>
(36A) Bridge Rail	0 Substandard	0 Substandard
(36B) Transition Rail	0 Substandard	0 Substandard
(36C) Approach Rail	N N/A or not required	N N/A or not required
(36D) Guardrail Ends	0 Substandard	0 Substandard
(41) Structure Open, Posted, or Closed	P Posted for load	P Posted for load
(58) Deck Rating	5 Fair	5 Fair
(59) Superstructure	4 Poor	5 Fair
(60) Substructure	5 Fair	5 Fair
(61) Channel	7 Minor Damage	7 Minor Damage
(62) Culvert	N N/A (NBI)	N N/A (NBI)
(67) Structural Evaluation	4 Minimum Tolerable	4 Minimum Tolerable
(68) Deck Geometry	2 Intolerable - Replace	2 Intolerable - Replace
(69) Underclear, Vertical and Horizontal	N Not applicable (NBI)	N Not applicable (NBI)
(71) Waterway Adequacy	8 Equal Desirable	8 Equal Desirable
(MDT058) FHWA Bridge Condition	3-Poor	2-Fair
(MDT034) Request Review of Load Rating	Y-Change in Condition	No
(MDT050) UBIV Required	N - UBIV Required	N - UBIV Required
(MDT010) FC Inspection Details	D - Steel trusses	D - Steel trusses
(MDT008) Depth of Cover		

**Inspection Schedule**

<b>Inspection Type</b>	<b>Most Recent Inspection Date</b>	<b>Frequency (Months)</b>	<b>Next Inspection Date</b>
Routine	06/28/2023	24	06/27/2025
Fracture Critical	06/28/2023	24	06/27/2025
Cross Sections	06/28/2023	48	06/27/2027

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**Element Inspection**

Note: Only elements inspected during this inspection will appear in this report.

**M Main Span (0)**

30 - Steel Deck - Orthotropic	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
Environment: Mod.	2,885.00 sq.ft	2,452.00 (85.00%)	145.00 (5.00%)	288.00 (10.00%)	0.00 (0.00%)

Comments:

510 - Wearing Surfaces	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2,885.00 sq.ft	0.00 (0.00%)	2,718.00 (94.20%)	159.00 (5.51%)	8.00 (0.30%)

Comments:

1190 - Abrasion(PSC/RC)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2,885.00 sq.ft	0.00 (0.00%)	2,885.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Asphalt wearing surface had minor wear concentrated in the wheel paths up to 1/2 in. deep throughout.

3210 - Del/Spall/Patch/Pot(W ear Surf)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	167.00 sq.ft	0.00 (0.00%)	144.00 (86.23%)	15.00 (8.98%)	8.00 (4.80%)

Comments:

CS2: Approximately 5% of the wearing surface had been repaired with cold patches that were mostly sound, with map cracking up to 1/8 in. wide and random areas of delamination.

CS3: Wearing surface had a 12 in. wide by 4 in. long spall up to 2 in. deep in the north wheel path near Floor Beam 1' exposing steel deck underneath.

East end of wearing surface had two 3 ft. diameter potholes that had been patched but were still up to 1 in. deep in the wheel paths and had map cracking and delamination extending from patches.

CS4: Wearing surface at Floor Beam 2' had failed for 50% of the deck width and had a gap up to 1 in. wide allowing water to drain onto floor beam below.

3220 - Crack (Wearing Surface)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	144.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	144.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Wearing surface had full width transverse cracking up to 1/8 in. wide spaced approximately 20 ft. at the floor beam locations. Most cracks had been sealed previously, but seals were failed.



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515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2,885.00 sq.ft	2,019.50 (70.00%)	144.25 (5.00%)	288.50 (10.00%)	432.75 (15.00%)

Comments:

3410 - Chalk(Steel Protect Coatings)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	144.25 sq.ft	0.00 (0.00%)	144.25 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 5% of the protective coating on the steel deck was chalking.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	721.25 sq.ft	0.00 (0.00%)	0.00 (0.00%)	288.50 (40.00%)	432.75 (60.00%)

Comments:

CS3: Approximately 10% of the protective coating on the steel deck had failed with exposed primer underneath.

CS4: Approximately 15% of the protective coating on the steel deck had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	433.00 sq.ft	0.00 (0.00%)	289.00 (66.74%)	144.00 (33.26%)	0.00 (0.00%)

Comments:

CS2: Approximately 10% of the Span 1 soffit had minor surface corrosion with negligible section loss near seams and welding burn through holes.

CS3: Approximately 5% of the Span 1 soffit had lamellar corrosion due to significant seepage through deck.

7000 - Damage	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	144.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	144.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Approximately 5% of the Span 1 soffit had welding burn holes.

**M Main Span (0)**

113 - Steel Stringer	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1,440.00 ft	0.00 (0.00%)	0.00 (0.00%)	1,436.00 (99.70%)	4.00 (0.30%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	3,330.00 sq.ft	0.00 (0.00%)	1,831.50 (55.00%)	499.50 (15.00%)	999.00 (30.00%)

Comments:

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3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1,831.50 sq.ft	0.00 (0.00%)	1,831.50 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 55% of the painted coating on the steel stringers was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1,498.50 sq.ft	0.00 (0.00%)	0.00 (0.00%)	499.50 (33.33%)	999.00 (66.67%)

Comments:

CS3: Approximately 15% of the painted coating on the steel stringers had failed with exposed primer underneath.

CS4: Approximately 30% of the painted coating on the steel stringers had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1,440.00 ft	0.00 (0.00%)	0.00 (0.00%)	1,436.00 (99.72%)	4.00 (0.28%)

Comments:

CS3: Span 1 stringers had active corrosion in areas of failed paint. Approximately 25% had lamellar corrosion with pitting up to 1/64 in. deep, heavier near floor beam locations.

Seepage through deck at seams and weld burn through locations was accelerating corrosion to stringers.

Span 1 exterior stringers typically had heavy corrosion with pitting up to 1/16 in. deep.

Stringer 1, between Floor Beams 3' and 2', had lamellar corrosion up to 1/4 in. thick with 1/8 in. section loss underneath.

Stringers 4, 5, and 6, at Abutment 1, had lamellar corrosion up to 1/8 in. thick from the west end to midspan.

CS4: Stringer 2, at Abutment 1, had heavy corrosion and section loss over a 14 in. long by 2 in. high area with a 2-1/2 in. long by 3/4 in. high through hole centered 2 in. from the stringer end.

Stringer 7, at Abutment 1, had heavy corrosion and section loss in the web over a 17 in. long by 2 in. high area with a 10 in. long by 1 in. high through hole centered 10 in. from the stringer end. Elastomeric pad was working itself out to the south and was unsupported for 1/2 in. along north edge of stringer.

1020 - Connection	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	3.00 ft	0.00 (0.00%)	3.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Two of two bolts loose at Floor Beam 3' to Stringer 1 and Floor Beam 3 to Stringer 6 connections.

Stringer 5, at Abutment 1, had a 1/4 in. gap between its bottom flange and the Abutment 1 beam seat, and the stringer deflected under live load.

1900 - Distortion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	3.00 ft	0.00 (0.00%)	3.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Stringer 8, between Floor Beams 1' and 2', was rotated 2 in. towards the north for end 3 ft. at Floor Beam 1'.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (0)**

<b>120 - Steel Truss</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	361.00 ft	0.00 (0.00%)	357.00 (98.90%)	4.00 (1.10%)	0.00 (0.00%)

Environment: Mod.

Comments:

<b>515 - Steel Protective Coating</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	9,000.00 sq.ft	1,350.00 (15.00%)	4,500.00 (50.00%)	1,350.00 (15.00%)	1,800.00 (20.00%)

Comments:

<b>3410 - Chalk(Steel Protect Coatings)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	4,500.00 sq.ft	0.00 (0.00%)	4,500.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 50% of the painted coating on the steel truss was bubbling and peeling.

<b>3440 - Eff (Stl Protect Coat)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	3,150.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	1,350.00 (42.86%)	1,800.00 (57.14%)

Comments:

CS3: Approximately 15% of the painted coating on the steel truss had failed with exposed primer underneath.

CS4: Approximately 20% of the painted coating on the steel truss had failed with corrosion underneath.

<b>1000 - Corrosion</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	363.00 ft	0.00 (0.00%)	361.00 (99.45%)	2.00 (0.55%)	0.00 (0.00%)

Comments:

CS2: Through Truss had minor surface corrosion and negligible section loss in areas of failed paint.

CS3: Span 1: The pins at L0N and L0S had pack rust up to 2.25 in. and 1 in. thick, respectively.

<b>1020 - Connection</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	6.00 ft	0.00 (0.00%)	4.00 (66.67%)	2.00 (33.30%)	0.00 (0.00%)

Comments:

CS2: South Truss, Panel Point U2, one bolt was loose at upper horizontal strut to top chord connection plate.

North Truss, Panel Point U3. outboard pin nut had a 3/8 in. gap between nut and chord web.

North Truss, Panel Point U2', two loose bolts at upper horizontal strut to top chord connection plate.

CS3: South Truss, Panel Point U4, one bolt was sheared off at upper horizontal strut to top chord connection plate.

South Truss, End Diagonal U1'-L0', one bolt was missing at top flange plate to rail post angle connection.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

7000 - Damage	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	8.00 ft	0.00 (0.00%)	8.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: South Truss, Diagonal U1-L2 inboard eyebar was bent 3 in. upwards over a 3 ft. length.

South Truss, Diagonal U3-L4 inboard eyebar was bent 1 in. to the north over a 2 ft. length.

South and North Trusses, minor abrasion at the intersection between L4-U4' and U4-L4' with negligible section loss.

North Truss, Vertical U1-L1, east interior and exterior flanges of vertical were bent 1 in. to the north due to impact damage approximately 5 ft. above the deck.

**M Main Span (0)**

152 - Steel Floor Beam	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	161.00 ft	0.00 (0.00%)	88.00 (54.70%)	73.00 (45.30%)	0.00 (0.00%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	660.00 sq.ft	0.00 (0.00%)	132.00 (20.00%)	264.00 (40.00%)	264.00 (40.00%)

Comments:

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	132.00 sq.ft	0.00 (0.00%)	132.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 20% of the painted coating on the floor beams was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	528.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	264.00 (50.00%)	264.00 (50.00%)

Comments:

CS3: Approximately 40% of the painted coating on the floor beams had failed with exposed primer underneath.

CS4: Approximately 40% of the painted coating on the floor beams had failed with corrosion underneath.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

1000 - Corrosion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	161.00 ft	0.00 (0.00%)	88.00 (54.66%)	73.00 (45.34%)	0.00 (0.00%)

Comments:

Seepage through deck at seams and weld burn through locations was accelerating corrosion to floor beams.

CS3: Floor Beams 1, 3', 2', and 1' had lamellar corrosion with pitting up to 1/64 in. deep underneath for approximately 25% of length. Remaining length had moderate corrosion with negligible section loss.

Floor Beam 2, north 8 ft. of east web face had lamellar corrosion up to 1/4 in. thick with section loss when removed.

Heaviest corrosion under Stringer 3 with only 0.430 in. remaining (approximately 14% section loss). Floor beam had lamellar corrosion along top and bottom flanges but section loss could not be accurately measured due to tapered member.

Floor Beams 3, 4, and 4' had lamellar corrosion with pitting up to 1/64 in. deep for approximately 75% of length. End 2 ft. on both ends had areas with less than 0.470 in. remaining (approximately 7% section loss).

1900 - Distortion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.00 ft	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Floor Beam 1' bottom west flange was bent upwards 1/2 in. over a 6 in. length approximately 16 in. from the north end.

**M Main Span (0)**

210 - Re Conc Pier Wall	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	22.00 ft	0.00 (0.00%)	22.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

1080 - Delamination/Spall/Patched Area	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	13.00 ft	0.00 (0.00%)	13.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 2 west face had seven areas of delamination up to 60 in. wide by 12 in. high, edges had minor spalling up to 1 in. deep.

Bent 2 east face had five areas of delamination up to 15 in. wide by 30 in. wide, edges had minor spalling up to 1 in. deep.

1130 - Cracking (RC and Other)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	22.00 ft	22.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS1: Bent 2 had hairline temperature and shrinkage cracks throughout.

1190 - Abrasion(PSC/RC)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	22.00 ft	0.00 (0.00%)	22.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 2 had abrasion with exposed, secure aggregate along the lower 10 ft. primarily on the west face and north end.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (0)**

**215 - Re Conc Abutment**

	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
Environment: Mod.	66.00 ft	64.00 (97.00%)	1.00 (1.52%)	1.00 (1.50%)	0.00 (0.00%)

Comments:

1080 - Delamination/Spall/Patched Area	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1.00 ft	0.00 (0.00%)	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Abutment 1, south end had a 3 ft. high by 5 in. wide spall with up to 2 in. of penetration and exposed rebar with up to 10% section loss.

1090 - Exposed Rebar	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1.00 ft	0.00 (0.00%)	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Abutment 1, south end had a 3 ft. high by 5 in. wide spall with up to 2 in. of penetration and exposed rebar with up to 10% section loss.

1130 - Cracking (RC and Other)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	66.00 ft	65.00 (98.50%)	1.00 (1.50%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS1: Abutment 1 had hairline map cracking throughout.

CS2: Abutment 1 had one full height vertical crack up to 1/32 in. wide at the midpoint.

**M Main Span (0)**

**234 - Re Conc Pier Cap**

	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
Environment: Mod.	22.00 ft	19.00 (86.40%)	3.00 (13.60%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

1130 - Cracking (RC and Other)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	3.00 ft	0.00 (0.00%)	3.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 2 Cap had three full height vertical cracks up to 1/32 in. wide.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (0)**

311 - Moveable Bearing	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
Environment: Mod.	2.00 each	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2.00 sq.ft	0.00 (0.00%)	1.30 (65.00%)	0.20 (10.00%)	0.50 (25.00%)

Comments:

3410 - Chalk(Steel Protect Coatings)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1.30 sq.ft	0.00 (0.00%)	1.30 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 65% of the painted coating on the moveable bearings was chalking.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	0.70 sq.ft	0.00 (0.00%)	0.00 (0.00%)	0.20 (28.57%)	0.50 (71.43%)

Comments:

CS3: Approximately 10% of the painted coating on the moveable bearings had failed with exposed primer underneath.

CS4: Approximately 25% of the painted coating on the moveable bearings had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2.00 each	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Both moveable bearings at Abutment 1 had heavy corrosion with up to 50% section loss to the anchor rods.

2220 - Alignment	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2.00 each	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS1: Span 1 South Moveable Bearing at Abutment 1, sole plate was displaced 1-7/8 in. to the west, in expansion, in relation to the masonry plate on a 65 degree F day.

Span 1 North Moveable Bearing at Abutment 1, sole plate was displaced 2 in. to the west, in expansion, in relation to the masonry plate on a 65 degree F day.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

2240 - Loss of Bearing Area	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 each	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)

Comments:

CS4: South Moveable Bearing, the rollers had worked out from underneath the bearing and were pushed against the abutment backwall. Two rollers were no longer under the sole plate.

North Moveable Bearing, the nested roller keeper had failed. Two rollers had worked out from underneath the bearing and were pushed against the abutment backwall. One roller was sticking out on the east side of the bearing.

**M Main Span (0)**

313 - Fixed Bearing	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	2.00 each	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 sq.ft	0.00 (0.00%)	1.60 (80.00%)	0.20 (10.00%)	0.20 (10.00%)

Comments:

3410 - Chalk(Steel Protect Coatings)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.60 sq.ft	0.00 (0.00%)	1.60 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 80% of the painted coating on the fixed bearings was chalking.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	0.40 sq.ft	0.00 (0.00%)	0.00 (0.00%)	0.20 (50.00%)	0.20 (50.00%)

Comments:

CS3: Approximately 10% of the painted coating on the fixed bearings had failed with exposed primer underneath.

CS4: Approximately 10% of the painted coating on the fixed bearings had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 each	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: The Bent 2 fixed bearings had minor surface corrosion and negligible section loss in areas of failed paint.



**STRUCTURE INSPECTION REPORT**

MDT ID - 03719  
NBI ID - L32101000+01001  
Feature Intersected - BITTERROOT RIVER 010  
Facility - NORTH AVE W

Inspector - Ryan Sievers  
Inspection Type - Fracture Critical  
Inspection Date - 06/28/2023  
Inventory Direction - West to East

**M Main Span (0)**

<b>330 - Metal Bridge Railing</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	361.00 ft	0.00 (0.00%)	361.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

<b>515 - Steel Protective Coating</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	750.00 sq.ft	150.00 (20.00%)	75.00 (10.00%)	150.00 (20.00%)	375.00 (50.00%)

Comments:

<b>3420 - Peel/Bub/Crack(Stl Protect Coat)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	75.00 sq.ft	0.00 (0.00%)	75.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 10% of the painted coating on the steel rail was bubbling and peeling.

<b>3440 - Eff (Stl Protect Coat)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	525.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	150.00 (28.57%)	375.00 (71.43%)

Comments:

CS3: Approximately 20% of the painted coating on the steel rail had failed with exposed primer underneath.

CS4: Approximately 50% of the painted coating on the steel rail had failed with corrosion underneath.

<b>1000 - Corrosion</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	361.00 ft	0.00 (0.00%)	361.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Span 1 metal rail had minor surface corrosion with negligible section loss in areas of failed paint.

<b>7000 - Damage</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.00 ft	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: North rail, bottom angle at Panel Point 1' was bent 3/4 in. upwards.

**M Main Span (0)**

<b>820 - Steel Truss Vertical Cross-Frame</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	272.00 ft	0.00 (0.00%)	272.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	500.00 sq.ft	0.00 (0.00%)	100.00 (20.00%)	200.00 (40.00%)	200.00 (40.00%)

Comments:

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	100.00 sq.ft	0.00 (0.00%)	100.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 20% of the painted coating on the vertical cross bracing was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	400.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	200.00 (50.00%)	200.00 (50.00%)

Comments:

CS3: Approximately 40% of the painted coating on the vertical cross bracing had failed with exposed primer underneath.

CS4: Approximately 40% of the painted coating on the vertical cross bracing had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	272.00 ft	0.00 (0.00%)	272.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Vertical cross bracing had minor surface corrosion with negligible section loss in areas of failed paint.

7000 - Damage	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 ft	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Lower horizontal sway bracing at U3' was bent 2 in. to the east, and upward and downward 1 in. due to impact damage.

**M Main Span (1A)**

16 - Re Conc Top Flange	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1,959.00 sq.ft	1,959.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

No defects noted with Concrete Tee Beam Top Flange.

510 - Wearing Surfaces	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1,959.00 sq.ft	0.00 (0.00%)	1,927.00 (98.37%)	32.00 (1.63%)	0.00 (0.00%)

Comments:

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

1190 - Abrasion(PSC/RC)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	1,927.00 sq.ft	0.00 (0.00%)	1,927.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Asphalt wearing surface had minor wear concentrated in the wheel paths up to 1/2 in. deep throughout.

3220 - Crack (Wearing Surface)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	32.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	32.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Wearing surface had transverse cracks up to 3/4 in. wide above Bent 4 and Abutment 5. Cracks had been previous sealed, but seals were failed for 50% of crack lengths.

**M Main Span (1A)**

110 - Re Conc Opn Girder/Beam	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	489.00 ft	439.00 (89.78%)	50.00 (10.23%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

1120 - Efflorescence/Rust Staining	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	50.00 ft	0.00 (0.00%)	50.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Tee beams in Spans 3 and 4 had minor efflorescence seeping through the construction joints.

**M Main Span (1A)**

205 - Re Conc Column	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	3.00 each	0.00 (0.00%)	3.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

1190 - Abrasion(PSC/RC)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	3.00 each	0.00 (0.00%)	3.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 4 Columns had minor abrasion with exposed, secure aggregate for the bottom 6 ft.

**M Main Span (1A)**

215 - Re Conc Abutment	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	66.00 ft	66.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

No defects noted on Abutment 5.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (1A)**

234 - Re Conc Pier Cap	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	22.00 ft	18.00 (81.82%)	0.00 (0.00%)	4.00 (18.18%)	0.00 (0.00%)

Environment: Mod.

Comments:

1080 - Delamination/Spall/Patched Area	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	4.00 ft	0.00 (0.00%)	0.00 (0.00%)	4.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Bent 4 Cap west face had a 3 ft. wide by 2 ft. high spall with up to 3.5 in. of penetration and exposed rebar with up to 10% section loss.

Bent 4 Cap northeast corner had a 12 in. high by 3 in. wide spall with up to 1/2 in. of penetration and exposed rebar with up to 10% section loss.

1090 - Exposed Rebar	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2.00 ft	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Bent 4 Cap west face had a 3 ft. wide by 2 ft. high spall with up to 3.5 in. of penetration and exposed rebar with up to 10% section loss.

Bent 4 Cap northeast corner had a 12 in. high by 3 in. wide spall with up to 1/2 in. of penetration and exposed rebar with up to 10% section loss.

**M Main Span (1A)**

330 - Metal Bridge Railing	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	246.00 ft	0.00 (0.00%)	183.00 (74.40%)	63.00 (25.60%)	0.00 (0.00%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	500.00 sq.ft	425.00 (85.00%)	25.00 (5.00%)	25.00 (5.00%)	25.00 (5.00%)

Comments:

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	25.00 sq.ft	0.00 (0.00%)	25.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 5% of the painted coating on the steel rail was bubbling and peeling.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	50.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	25.00 (50.00%)	25.00 (50.00%)

Comments:

CS3: Approximately 5% of the painted coating on the steel rail had failed with exposed primer underneath.

CS4: Approximately 5% of the painted coating on the steel rail had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	246.00 ft	0.00 (0.00%)	246.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Spans 3 and 4 metal bridge rail had minor surface corrosion with negligible section loss in areas of failed paint.

7000 - Damage	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	71.00 ft	0.00 (0.00%)	8.00 (11.27%)	63.00 (88.73%)	0.00 (0.00%)

Comments:

CS2: North Rail had three adjacent vertical members with impact damage that bent the interior flange 3/4 in. out of plane over a 6 in. height near the East Approach in Span 4.

South Rail top rail was bent downward 1-1/2 in. over a 5 ft. length at the far east end of the bridge.

CS3: Span 4 North Curb had an area of spalling over Bent 4 measuring 3 ft. long by full width and height with exposed rebar.

North Curb had spalling up to 2 in. deep on the top and interior faces for the full length of Span 4 with areas of exposed rebar.

**M Main Span (2)**

30 - Steel Deck - Orthotropic	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
Environment: Mod.	624.00 sq.ft	593.00 (95.03%)	0.00 (0.00%)	31.00 (4.97%)	0.00 (0.00%)

Comments:

510 - Wearing Surfaces	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	624.00 sq.ft	0.00 (0.00%)	624.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

1190 - Abrasion(PSC/RC)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	624.00 sq.ft	0.00 (0.00%)	624.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Asphalt wearing surface had minor wear concentrated in the wheel paths up to 1/2 in. deep throughout.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

515 - Steel Protective Coating	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	624.00 sq.ft	499.20 (80.00%)	31.20 (5.00%)	62.40 (10.00%)	31.20 (5.00%)

Comments:

3410 - Chalk(Steel Protect Coatings)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	31.20 sq.ft	0.00 (0.00%)	31.20 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	93.60 sq.ft	0.00 (0.00%)	0.00 (0.00%)	62.40 (66.70%)	31.20 (33.30%)

Comments:

CS3: Approximately 10% of the protective coating on the steel deck had failed with exposed primer underneath.

CS4: Approximately 5% of the protective coating on the steel deck had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	31.00 sq.ft	0.00 (0.00%)	31.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 5% of the Span 2 soffit had minor surface corrosion with negligible section loss near welding burn through holes.

7000 - Damage	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	31.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	31.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Approximately 5% of the Span 2 soffit had welding burn holes.

**M Main Span (2)**

113 - Steel Stringer	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	314.00 ft	0.00 (0.00%)	290.00 (92.36%)	16.00 (5.10%)	8.00 (2.55%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	720.00 sq.ft	0.00 (0.00%)	396.00 (55.00%)	108.00 (15.00%)	216.00 (30.00%)

Comments:

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	396.00 sq.ft	0.00 (0.00%)	396.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 55% of the painted coating on the steel stringers was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	324.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	108.00 (33.33%)	216.00 (66.67%)

Comments:

CS3: Approximately 15% of the painted coating on the steel stringers had failed with exposed primer underneath.

CS4: Approximately 30% of the painted coating on the steel stringers had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	314.00 ft	0.00 (0.00%)	298.00 (94.90%)	8.00 (2.55%)	8.00 (2.55%)

Comments:

CS2: Span 2 stringers had minor to moderate corrosion and negligible section loss in areas of failed paint.

CS3: Stringer 4, at Bent 2, had an 18 in. long by 2 in. high area of lamellar corrosion up to 1/4 in. thick on the bottom of the north face at the west end of the stringer.

Stringer 5, at Bent 2, had a 16 in. long by 2 in. high area of lamellar corrosion up to 1/4 in. thick on the bottom of the web located 12 in. from the end of the stringer on the south face.

Stringer 3, at Bent 3, had heavy corrosion and up to 1/8 in. thick rust scale on both sides of web at web to bottom flange interface adjacent to stringer end.

CS4: Stringer 2, at Bent 2, had heavy corrosion and section loss in the web with a 22 in. long by 2 in. high through hole and knife edging to the bottom, north flange.

Stringer 2, at Bent 3, had heavy corrosion with a 4 in. long by 1 in. high through hole at the web to bottom flange interface.

Stringer 5, at Bent 3, had heavy corrosion and section loss in the web with an 8 in. long by 1 in. high through hole near stringer end. Bottom flange was knife-edged in this area.

Stringer 7, at Bent 3, had heavy corrosion with up to 50% section loss over a 10 in. long by 2 in. high area adjacent to the stringer end that had a 5 in. long by 1 in. high through hole at the web to lower flange interface.

Stringer 8, at Bent 3, had heavy corrosion and section loss in the web for the end 14 in. with a 7 in. long by 1 in. high through hole at the web to bottom flange interface at the stringer end.

1020 - Connection	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	8.00 ft	0.00 (0.00%)	0.00 (0.00%)	8.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Bent 3, the east anchor rod of the bearing pipe at Stringer 4 was sheared off. The west anchor rod at Stringer 4 had up to 50% section loss and was loose on concrete. The bearing pipe moved up to 1/2 in. vertically under live load.

Stringers 4, 5, 7, and 8 had a gap between the bottom flange and the hollow bearing pipe at Bent 3. Movement of the stringers was observed under live load.

Both anchor rods of the bearing pipe at Stringer 8 were sheared off. The bearing pipe moved up to 1/2 in. vertically under live load. Imprints in debris on top of bent showed up to 2 in. of lateral movement.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (2)**

<b>120 - Steel Truss</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	79.00 ft	0.00 (0.00%)	55.00 (69.62%)	24.00 (30.38%)	0.00 (0.00%)

Comments:

<b>515 - Steel Protective Coating</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	400.00 sq.ft	60.00 (15.00%)	200.00 (50.00%)	60.00 (15.00%)	80.00 (20.00%)

Comments:

<b>3410 - Chalk(Steel Protect Coatings)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	200.00 sq.ft	0.00 (0.00%)	200.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 50% of the painted coating on the steel truss was bubbling and peeling.

<b>3440 - Eff (Stl Protect Coat)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	140.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	60.00 (42.86%)	80.00 (57.10%)

Comments:

CS3: Approximately 15% of the painted coating on the steel truss had failed with exposed primer underneath.

CS4: Approximately 20% of the painted coating on the steel truss had failed with corrosion underneath.

<b>1000 - Corrosion</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	79.00 ft	0.00 (0.00%)	55.00 (69.62%)	24.00 (30.38%)	0.00 (0.00%)

Comments:

CS2: Pony Truss had minor surface corrosion with negligible section loss in areas of failed paint.

CS3: Pony Truss had random areas of lamellar corrosion up to 1/8 in. deep along the inboard channel of the bottom chord.

South Truss, Panel Point L2, bottom chord inboard web had pitting up to 1/8 in. deep around gusset plate.

South Truss, Panel Points L2 and L2' had pack rust up to 1/4 in. thick between bottom chord and both interior and exterior gusset plates. Pack rust up to 3/4 in. thick between lower strut angles of exterior sway brace frames.

South Truss, Bottom Chord at L0' had pack rust up to 3/16 in. thick between outboard channel and gusset plate.

North Truss, Panel Points L2 and L2' had pack rust up to 3/8 in. thick between bottom chord and both interior and exterior gusset plates. Pack rust up to 3/4 in. thick between lower strut angles of exterior sway brace frames.

<b>1020 - Connection</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.00 ft	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: North Truss, U1' exterior gusset plate had two misdrilled 3/4 in. diameter holes.



**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

7000 - Damage	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	6.00 ft	0.00 (0.00%)	6.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: South Truss, Diagonal L2'-U1' was bent 3/4 in. out-of-plane over a 12 in. length.

South Truss, Bottom Chord at L0' channel members were deflected up to 1-1/2 in. out-of-plane over the moveable bearing.

North Truss, Vertical L2'-U2' interior flange was bent 1 in. out-of-plane over a 6 in. height due to impact damage.

North Truss, Diagonal L2'-U1' interior flange was bent 1-3/8 in. out-of-plane over a 24 in. length due to impact damage.

North Truss, End Diagonal U1'-L0' had seven areas of impact damage up to 3/4 in. long with up to 1/4 in. of deflection spaced over a 15 in. length.

**M Main Span (2)**

152 - Steel Floor Beam	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	33.00 ft	0.00 (0.00%)	33.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	115.00 sq.ft	0.00 (0.00%)	23.00 (20.00%)	46.00 (40.00%)	46.00 (40.00%)

Comments:

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	23.00 sq.ft	0.00 (0.00%)	23.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 20% of the painted coating on the floor beams was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	92.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	46.00 (50.00%)	46.00 (50.00%)

Comments:

CS3: Approximately 40% of the painted coating on the floor beams had failed with exposed primer underneath.

CS4: Approximately 40% of the painted coating on the floor beams had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	33.00 ft	0.00 (0.00%)	33.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Pony Truss floor beams had minor surface corrosion with negligible section loss in areas of failed paint.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (2)**

<b>210 - Re Conc Pier Wall</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	22.00 ft	0.00 (0.00%)	12.00 (54.50%)	10.00 (45.50%)	0.00 (0.00%)

Environment: Mod.

Comments:

<b>1080 - Delamination/Spall/Patched Area</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.00 ft	0.00 (0.00%)	1.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 3 had a 12 in. wide by 10 in. high area of delamination on the top, southeast corner.

<b>1120 - Efflorescence/Rust Staining</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	6.00 ft	0.00 (0.00%)	6.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Bent 3 pier noses had minor efflorescence.

<b>1130 - Cracking (RC and Other)</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	22.00 ft	0.00 (0.00%)	12.00 (54.50%)	10.00 (45.50%)	0.00 (0.00%)

Comments:

CS2: Bent 3 had random map cracking up to 1/32 in. wide throughout and a horizontal crack up to 1/32 in. wide located near the bottom, northeast corner that extended 6 ft. along east face and 2 ft. along north face.

CS3: Bent 3 west face, south end 10 ft., and east face, south end 4 ft. had map cracking up to 1/8 in. wide with delamination and spalls with up to 1 in. of penetration.

**M Main Span (2)**

<b>302 - Compressn Joint Seal</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	16.00 ft	0.00 (0.00%)	0.00 (0.00%)	16.00 (100.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

Compression joint located at Bent 3.

<b>2330 - Seal Damage</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	14.00 ft	0.00 (0.00%)	0.00 (0.00%)	14.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Rubber seal had failed over 90% of its length.

<b>2370 - Metal Deterioration or Damage</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	5.00 ft	0.00 (0.00%)	0.00 (0.00%)	5.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Joint had separated from Span 2 deck up to 3/4 in. over a 4 ft. length. Joint had a 1/2 in. bend over a 6 in. length in the south wheel path. Joint was moving under live load.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**M Main Span (2)**

<b>311 - Moveable Bearing</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	2.00 each	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)

Comments:

<i>1000 - Corrosion</i>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 each	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)

Comments:

CS3: Moveable Bearings at Bent 3 were left unpainted and had moderate corrosion with pitting up to 1/16 in. deep.

<i>2220 - Alignment</i>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 each	0.00 (0.00%)	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)

Comments:

CS2: South Moveable Bearing sole plate was displaced 1-7/8 in. to the east, in expansion, in relation to the upper flange of the bearing on a 65 degree F day.

North Moveable Bearing sole plate was displaced 1-1/2 in. to the east, in expansion, in relation to the upper flange of the bearing on a 65 degree F day.

<i>7000 - Damage</i>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 each	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Both moveable bearings elastomeric bearing pads were cracked/torn.

**M Main Span (2)**

<b>313 - Fixed Bearing</b>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
Environment: Mod.	2.00 each	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

<i>515 - Steel Protective Coating</i>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	2.00 sq.ft	0.00 (0.00%)	1.60 (80.00%)	0.20 (10.00%)	0.20 (10.00%)

Comments:

<i>3410 - Chalk(Steel Protect Coatings)</i>	<b>Total Quantity</b>	<b>Condition State 1</b>	<b>Condition State 2</b>	<b>Condition State 3</b>	<b>Condition State 4</b>
		QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
	1.60 sq.ft	0.00 (0.00%)	1.60 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 80% of the painted coating on the fixed bearings was chalking.

**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	0.40 sq.ft	0.00 (0.00%)	0.00 (0.00%)	0.20 (50.00%)	0.20 (50.00%)

Comments:

CS3: Approximately 10% of the painted coating on the fixed bearings had failed with exposed primer underneath.

CS4: Approximately 10% of the painted coating on the fixed bearings had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	2.00 each	0.00 (0.00%)	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: The Bent 2 fixed bearings had minor surface corrosion and negligible section loss in areas of failed paint.

**M Main Span (2)**

330 - Metal Bridge Railing	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	79.00 ft	0.00 (0.00%)	79.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Mod.

Comments:

515 - Steel Protective Coating	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	160.00 sq.ft	32.00 (20.00%)	16.00 (10.00%)	32.00 (20.00%)	80.00 (50.00%)

Comments:

3420 - Peel/Bub/Crack(Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	16.00 sq.ft	0.00 (0.00%)	16.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Approximately 10% of the painted coating on the steel rail was bubbling and peeling.

3440 - Eff (Stl Protect Coat)	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	112.00 sq.ft	0.00 (0.00%)	0.00 (0.00%)	32.00 (28.57%)	80.00 (71.43%)

Comments:

CS3: Approximately 20% of the painted coating on the steel rail had failed with exposed primer underneath.

CS4: Approximately 50% of the painted coating on the steel rail had failed with corrosion underneath.

1000 - Corrosion	Total Quantity	Condition State 1 QTY (PCT)	Condition State 2 QTY (PCT)	Condition State 3 QTY (PCT)	Condition State 4 QTY (PCT)
	79.00 ft	0.00 (0.00%)	79.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: Span 2 steel rail had minor surface corrosion with negligible section loss in areas of failed paint.



**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

7000 - Damage

Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
	QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
10.00 ft	0.00 (0.00%)	10.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)

Comments:

CS2: North Rail, at second connection from east end, middle rail was bent 1 in. upwards over a 10 ft. length with a bent connection bracket.

**M Main Span (9)**

**950 - Steel Approach Guardrail**

Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
	QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
60.00 ft	60.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Low

Comments:

No defects noted on the east approach guardrails.

**M Main Span (9)**

**960 - Steel Approach Guardrail**

Total Quantity	Condition State 1	Condition State 2	Condition State 3	Condition State 4
Ends	QTY (PCT)	QTY (PCT)	QTY (PCT)	QTY (PCT)
2.00 each	2.00 (100.00%)	0.00 (0.00%)	0.00 (0.00%)	0.00 (0.00%)

Environment: Low

Comments:

No defects noted on the east approach guardrail ends.

**Inspection Photos:**

**Photo Name:**  
North Elevation.jpg

**Comments:**  
North Elevation, looking south.



**Photo Name:**  
South Elevation.jpg

**Comments:**  
South Elevation, looking north.



**Photo Name:**  
Approach Span Underside Framing Plan.JPG

**Comments:**  
Underside framing plan, looking east in Span 4.



**Photo Name:**

Main Span Underside Framing Plan.JPG

**Comments:**

Underside framing plan, looking west in Span 1.



**Photo Name:**

Secondary Span Underside Framing Plan.JPG

**Comments:**

Underside framing plan, looking west in Span 2.



**Photo Name:**

Looking Upstream (south).JPG

**Comments:**

Looking south, upstream of bridge.



**Photo Name:**

Looking Downstream (north).JPG

**Comments:**

Looking north, downstream of bridge.



**Photo Name:**

East Portal.JPG

**Comments:**

East portal, looking west.



**Photo Name:**

West Portal.JPG

**Comments:**

West portal, looking east.





**Photo Name:**  
East Approach.JPG

**Comments:**  
East Approach, looking west.



**Photo Name:**  
West Approach.JPG

**Comments:**  
West Approach, looking northeast.



**Photo Name:**  
Channel Alignment.jpg

**Comments:**  
Channel alignment with bridge deck.



**Photo Name:**

East One Lane Bridge Sign.JPG

**Comments:**

East Approach One Lane Bridge Sign, looking west.



**Photo Name:**

East Weight Limit Sign.JPG

**Comments:**

East Approach Weight Limit Sign, looking west.



**Photo Name:**

West One Lane Bridge Sign.JPG

**Comments:**

West Approach One Lane Bridge Sign, looking north.



**Photo Name:**

West Weight Limit Sign.JPG

**Comments:**

West Approach Weight Limit Sign, looking east.



**Photo Name:**

Abutment 1.JPG

**Comments:**

Abutment 1, looking west.



**Photo Name:**

Bent 2.JPG

**Comments:**

Bent 2, looking east.



**STRUCTURE INSPECTION REPORT**

MDT ID - 03719

NBI ID - L32101000+01001

Feature Intersected - BITTERROOT RIVER 010

Facility - NORTH AVE W

Inspector - Ryan Sievers

Inspection Type - Fracture Critical

Inspection Date - 06/28/2023

Inventory Direction - West to East

**Photo Name:**  
Bent 3.JPG

**Comments:**  
Bent 3, looking southwest.



**Photo Name:**  
Bent 4.JPG

**Comments:**  
Bent 4, looking west.



**Photo Name:**  
Abutment 5.JPG

**Comments:**  
Abutment 5, looking east.



**Photo Name:**

Span 1 Soffit Corrosion.JPG

**Comments:**

Approximately 5% of the Span 1 soffit had lamellar corrosion due to significant seepage through deck. Approximately 5% of the Span 1 soffit had welding burn holes.



**Photo Name:**

Span 1 Wearing Surface Failure at Floor Beam 2'.JPG

**Comments:**

Wearing surface at Floor Beam 2' had failed for 50% of the deck width and had a gap up to 1 in. wide allowing water to drain onto floor beam below.



**Photo Name:**

Span 1 Wearing Surface L1' Spall.JPG

**Comments:**

Wearing surface had a 12 in. wide by 4 in. long spall up to 2 in. deep in the north wheel path near Floor Beam 1' exposing steel deck underneath.



**Photo Name:**

Span 1 Wearing Surface Potholes.JPG

**Comments:**

East end of wearing surface had two 3 ft. diameter potholes that had been patched but were still up to 1 in. deep in the wheel paths and had map cracking and delamination extending from patches.



**Photo Name:**

Span 1 Wearing Surface Transverse Cracking.JPG

**Comments:**

Wearing surface had full width transverse cracking up to 1/8 in. wide spaced approximately 20 ft. at the floor beam locations. Most cracks had been sealed previously, but seals were failed.



**Photo Name:**

Span 1 Exterior Stringer Typical Corrosion.JPG

**Comments:**

Span 1 exterior stringers typically had heavy corrosion with pitting up to 1/16 in. deep.



**Photo Name:**

Span 1 Floor Beam 3' to Stringer 1 Loose Connection Bolts.JPG

**Comments:**

Two of two bolts loose at Floor Beam 3' to Stringer 1 and Floor Beam 3 to Stringer 6 connections.



**Photo Name:**

Span 1 Stringer 1 at Floor Beam 3' Corrosion.JPG

**Comments:**

Stringer 1, between Floor Beams 3' and 2', had lamellar corrosion up to 1/4 in. thick with 1/8 in. section loss underneath.



**Photo Name:**

Span 1 Stringer 2 at Abutment 1 Corrosion.JPG

**Comments:**

Stringer 2, at Abutment 1, had heavy corrosion and section loss over a 14 in. long by 2 in. high area with a 2-1/2 in. long by 3/4 in. high through hole centered 2 in. from the stringer end.



**Photo Name:**

Span 1 Stringer 4 at Abutment 1 Corrosion.JPG

**Comments:**

Stringers 4, 5, and 6, at Abutment 1, had lamellar corrosion up to 1/8 in. thick from the west end to midspan.



**Photo Name:**

Span 1 Stringer 5 at Abutment 1 Loss of Bearing.JPG

**Comments:**

Stringer 5, at Abutment 1, had a 1/4 in. gap between its bottom flange and the Abutment 1 beam seat, and the stringer deflected under live load.



**Photo Name:**

Span 1 Stringer 7 at Abutment 1 Corrosion.JPG

**Comments:**

Stringer 7, at Abutment 1, had heavy corrosion and section loss in the web over a 17 in. long by 2 in. high area with a 1 in. high by 10 in. long through hole centered 10 in. from the stringer end. Stringer beam seat was unsupported by up to 1/2 in. on the north edge.





**Photo Name:**

Span 1 Typical Stringer Corrosion.JPG

**Comments:**

Span 1 stringers had active corrosion for the full length. Approximately 25% had laminating corrosion with pitting up to 1/64 in. deep, heavier near floor beam locations. Seepage through deck at seams and weld burn through locations was accelerating corrosion to stringers.



**Photo Name:**

Span 1 North Truss L4-U4' U4-L4' Abrasion.JPG

**Comments:**

South and North Trusses, minor abrasion at the intersection between L4-U4' and U4-L4' with negligible section loss.



**Photo Name:**

Span 1 North Truss U1-L1 Damage.JPG

**Comments:**

North Truss, Vertical U1-L1, east interior and exterior flanges of vertical were bent 1 in. to the north due to impact damage approximately 5 ft. above the deck.



**Photo Name:**

Span 1 North Truss U2' Upper Horizontal Strut Loose Bolts.JPG

**Comments:**

North Truss, Panel Point U2', two loose bolts at upper horizontal strut to top chord connection plate.



**Photo Name:**

Span 1 North Truss U3 Outboard Pin Nut Gap.JPG

**Comments:**

North Truss, Panel Point U3. outboard pin nut had a 3/8 in. gap between nut and chord web.

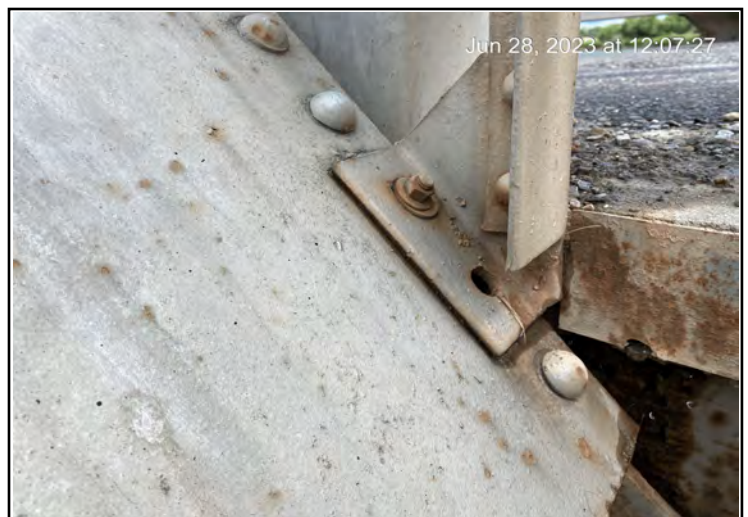


**Photo Name:**

Span 1 South Truss U1'-L0' Missing Bolt.JPG

**Comments:**

South Truss, End Diagonal U1'-L0', one bolt was missing at top flange plate to rail post angle connection.



**Photo Name:**

Span 1 South Truss U1-L2 Distortion.JPG

**Comments:**

South Truss, Diagonal U1-L2 inboard eyebar was bent 3 in. upwards over a 3 ft. length.



**Photo Name:**

Span 1 South Truss U2 Upper Horizontal Strut Loose Bolt.JPG

**Comments:**

South Truss, Panel Point U2, one bolt was loose at upper horizontal strut to top chord connection plate.

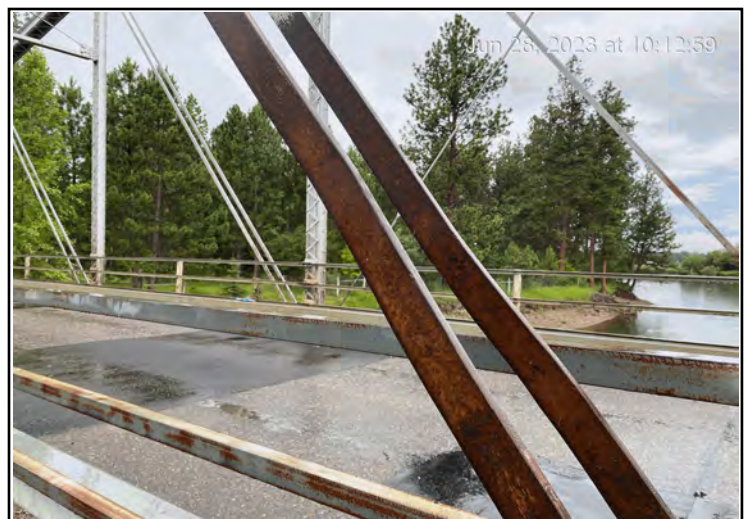


**Photo Name:**

Span 1 South Truss U3-L4 Distortion.JPG

**Comments:**

South Truss, Diagonal U3-L4 inboard eyebar was bent 1 in. to the north over a 2 ft. length.



**Photo Name:**

Span 1 South Truss U4 Upper Horizontal Strut Missing Bolt.JPG

**Comments:**

South Truss, Panel Point U4, one bolt was sheared off at upper horizontal strut to top chord connection plate.



**Photo Name:**

Span 1 Floor Beam 1 Corrosion.JPG

**Comments:**

Floor Beams 1, 3', 2' and 1' had lamellar corrosion with pitting up to 1/64 in. deep underneath for approximately 25% of length. Remaining length had moderate corrosion with negligible section loss.



**Photo Name:**

Span 1 Floor Beam 1' Distortion.jpg

**Comments:**

Floor Beam 1' bottom west flange was bent upwards 1/2 in. over a 6 in. length approximately 16 in. from the north end.



**Photo Name:**

Span 1 Floor Beam 2 Corrosion.JPG

**Comments:**

Floor Beam 2, north 8 ft. of east web face had lamellar corrosion up to 1/4 in. thick with section loss when removed. Heaviest corrosion under Stringer 3 with only 0.430 in. remaining (approximately 14% section loss). Floor beam had lamellar corrosion along top and bottom flanges but section loss could not be accurately measured due to tapered member.



**Photo Name:**

Span 1 Floor Beam 3 South End Corrosion.JPG

**Comments:**

Floor Beams 3, 4, and 4' had lamellar corrosion with pitting up to 1/64 in. deep for approximately 75% of length. End 2 ft. on both ends had areas with less than 0.470 in. remaining (approximately 7% section loss).



**Photo Name:**

Abutment 1 South End Spall.JPG

**Comments:**

Abutment 1, south end had a 3 ft. high by 5 in. wide spall with up to 2 in. of penetration and exposed rebar with up to 10% section loss.



**Photo Name:**

Abutment 1 Moveable Bearing Corrosion.JPG

**Comments:**

Both moveable bearings at Abutment 1 had heavy corrosion with up to 50% section loss to the anchor rods.



**Photo Name:**

Abutment 1 North Moveable Bearing Alignment.JPG

**Comments:**

Span 1 North Moveable Bearing at Abutment 1, sole plate was displaced 2 in. to the west, in expansion, in relation to the masonry plate on a 65 degree F day.



**Photo Name:**

Abutment 1 North Moveable Bearing Loss of Bearing.JPG

**Comments:**

North Moveable Bearing, the nested roller keeper had failed. Two rollers had worked out from underneath the bearing and were pushed against the abutment backwall. One roller was sticking out on the east side of the bearing.



**Photo Name:**

Abutment 1 South Moveable Bearing Alignment.JPG

**Comments:**

Span 1 South Moveable Bearing at Abutment 1, sole plate was displaced 1-7/8 in. to the west, in expansion, in relation to the masonry plate on a 65 degree F day.



**Photo Name:**

Abutment 1 South Moveable Bearing Loss of Bearing.JPG

**Comments:**

South Moveable Bearing, the rollers had worked out from underneath the bearing and were pushed against the abutment backwall. Two rollers were no longer under the sole plate.



**Photo Name:**

U3' Sway Brace Damage.JPG

**Comments:**

Lower horizontal sway bracing at U3' was bent 2 in. to the east, and upward and downward 1 in. due to impact damage.



**Photo Name:**

Bent 4 Cap Northeast Corner Spall.JPG

**Comments:**

Bent 4 Cap northeast corner had a 12 in. high by 3 in. wide spall with up to 1/2 in. of penetration and exposed rebar with up to 10% section loss.



**Photo Name:**

Bent 4 Cap West Face Spall.JPG

**Comments:**

Bent 4 Cap west face had a 3 ft. wide by 2 ft. high spall with up to 3.5 in. of penetration and exposed rebar with up to 10% section loss.



**Photo Name:**

Span 4 North Curb Spall over Bent 4.JPG

**Comments:**

Span 4 North Curb had an area of spalling over Bent 4 measuring 3 ft. long by full width and height with exposed rebar.





**Photo Name:**  
Span 4 North Curb Spalling.JPG

**Comments:**  
North Curb had spalling up to 2 in. deep on the top and interior faces for the full length of Span 4 with areas of exposed rebar.



**Photo Name:**  
Span 2 Stringer 2 at Bent 2 Corrosion.JPG

**Comments:**  
Stringer 2, at Bent 2, had heavy corrosion and section loss in the web with a 22 in. long by 2 in. high through hole and knife edging to the bottom, north flange.



**Photo Name:**  
Span 2 Stringer 2 at Bent 3 Corrosion.JPG

**Comments:**  
Stringer 2, at Bent 3, had heavy corrosion with a 4 in. long by 1 in. high through hole at the web to bottom flange interface.



**Photo Name:**

Span 2 Stringer 3 at Bent 3 Corrosion.JPG

**Comments:**

Stringer 3, at Bent 3, had heavy corrosion and up to 1/8 in. thick rust scale on both sides of web at web to bottom flange interface adjacent to stringer end.



**Photo Name:**

Span 2 Stringer 4 at Bent 2 Corrosion.JPG

**Comments:**

Stringer 4, at Bent 2, had an 18 in. long by 2 in. high area of lamellar corrosion up to 1/4 in. thick on the bottom of the north face at the west end of the stringer.



**Photo Name:**

Span 2 Stringer 4 Bearing Loss.JPG

**Comments:**

Stringers 4, 5, 7, and 8 had a gap between the bottom flange and the hollow bearing pipe at Bent 3. Movement of the stringers was observed under live load. The east anchor rod of the bearing pipe at Stringer 4 was sheared off. The west anchor rod at Stringer 4 had up to 50% section loss and was loose on concrete. The bearing pipe moved up to 1/2 in. vertically under live load.



**Photo Name:**

Span 2 Stringer 5 at Bent 2 Corrosion.JPG

**Comments:**

Stringer 5, at Bent 2, had a 16 in. long by 2 in. high area of lamellar corrosion up to 1/4 in. thick on the bottom of the web located 12 in. from the end of the stringer on the south face.



**Photo Name:**

Span 2 Stringer 5 at Bent 3 Corrosion.JPG

**Comments:**

Stringer 5, at Bent 3, had heavy corrosion and section loss in the web with an 8 in. long by 1 in. high through hole near stringer end. Bottom flange was knife-edged in this area.



**Photo Name:**

Span 2 Stringer 7 at Bent 3 Corrosion.JPG

**Comments:**

Stringer 7, at Bent 3, had heavy corrosion with up to 50% section loss over a 10 in. long by 2 in. high area adjacent to the stringer end that had a 5 in. long by 1 in. high through hole at the web to lower flange interface.



**Photo Name:**

Span 2 Stringer 8 at Bent 3 Corrosion.JPG

**Comments:**

Stringer 8, at Bent 3, had heavy corrosion and section loss in the web for the end 14 in. with a 7 in. long by 1 in. high through hole at the web to bottom flange interface at the stringer end.



**Photo Name:**

Span 2 Stringer 8 Bearing Loss.JPG

**Comments:**

Stringers 4, 5, 7, and 8 had a gap between the bottom flange and the hollow bearing pipe at Bent 3. Movement of the stringers was observed under live load. Both anchor rods of the bearing pipe at Stringer 8 were sheared off. The bearing pipe moved up to 1/2 in. vertically under live load. Imprints in debris on top of bent showed up to 2 in. of lateral movement.



**Photo Name:**

Span 2 Bottom Chord Corrosion.JPG

**Comments:**

Pony Truss had random areas of laminating corrosion up to 1/8 in. deep along the inboard channel of the bottom chord.



**Photo Name:**

Span 2 North Truss L2 Bottom Chord Corrosion.JPG

**Comments:**

South Truss, Panel Points L2 and L2' had pack rust up to 1/4 in. thick between bottom chord and both interior and exterior gusset plates. North Truss, Panel Points L2 and L2' had pack rust up to 3/8 in. thick between bottom chord and both interior and exterior gusset plates. Pack rust up to 3/4 in. thick between lower strut angles of exterior sway brace frames.



**Photo Name:**

Span 2 North Truss L2'-U1' Damage.JPG

**Comments:**

North Truss, Diagonal L2'-U1' interior flange was bent 1-3/8 in. out-of-plane over a 24 in. length due to impact damage.



**Photo Name:**

Span 2 North Truss L2'-U2' Damage.JPG

**Comments:**

North Truss, Vertical L2'-U2' interior flange was bent 1 in. out-of-plane over a 6 in. height due to impact damage.



**Photo Name:**

Span 2 North Truss U1' Misdrilled Holes.JPG

**Comments:**

North Truss, U1' exterior gusset plate had two misdrilled 3/4 in. diameter holes.



**Photo Name:**

Span 2 North Truss U1'-L0' Damage.JPG

**Comments:**

North Truss, End Diagonal U1'-L0' had seven areas of impact damage up to 3/4 in. long with up to 1/4 in. of deflection spaced over a 15 in. length.



**Photo Name:**

Span 2 South Truss L0' Bottom Chord Corrosion.JPG

**Comments:**

South Truss, Bottom Chord at L0' had pack rust up to 3/16 in. thick between outboard channel and gusset plate.



**Photo Name:**

Span 2 South Truss L0' Bottom Chord Distortion.JPG

**Comments:**

South Truss, Bottom Chord at L0' channel members were deflected up to 1-1/2 in. out-of-plane over the moveable bearing.



**Photo Name:**

Span 2 South Truss L2 Bottom Chord Corrosion.JPG

**Comments:**

South Truss, Panel Point L2, bottom chord inboard web had pitting up to 1/8 in. deep around gusset plate.



**Photo Name:**

Span 2 South Truss L2'-U1' Distortion.JPG

**Comments:**

South Truss, Diagonal L2'-U1' was bent 3/4 in. out-of-plane over a 12 in. length.



**Photo Name:**

Bent 3 West Face Map Cracking.JPG

**Comments:**

Bent 3 west face, south end 10 ft., and east face, south end 4 ft. had map cracking up to 1/8 in. wide with delamination and spalls with up to 1 in. of penetration.



**Photo Name:**

Bent 3 Compression Joint Seal.JPG

**Comments:**

Joint had separated from Span 2 deck up to 3/4 in. over a 4 ft. length. Joint had a 1/2 in. bend over a 6 in. length in the south wheel path. Joint was moving under live load. Rubber seal had failed over 90% of its length.



**Photo Name:**

Span 2 Moveable Bearing Corrosion.JPG

**Comments:**

Moveable Bearings at Bent 3 were left unpainted and had moderate corrosion with pitting up to 1/16 in. deep.





**Photo Name:**

Span 2 North Moveable Bearing Alignment.JPG

**Comments:**

North Moveable Bearing sole plate was displaced 1-1/2 in. to the east, in expansion, in relation to the upper flange of the bearing on a 65 degree F day.



**Photo Name:**

Span 2 South Moveable Bearing Alignment.JPG

**Comments:**

South Moveable Bearing sole plate was displaced 1-7/8 in. to the east, in expansion, in relation to the upper flange of the bearing on a 65 degree F day.

