



RIDOT Bridge Inspection Report

066201
Ramp CB

Inspected By AECOM-COMMONWEALTH
Inspector: MATT BROOKS
Inspection Date 03/20/2024

Bridge Condition **Poor**

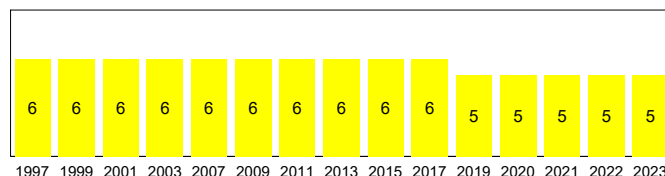
IDENTIFICATION		
Bridge ID:	066201	
NBI Number	Ramp CB	
Structure Name:	Ramp CB	
Location (9):	0.1 Mi E of JCT RI 10	
Carries (7):	I-95 RAMP CB	
Type of Service (42A):	1 Highway	
Feature Crossed (6):	WELLINGTON AV & AMTRAK	
Type of Service (42B):	4 Highway-railroad	
Placecode (4):	Cranston	
County (3):	Providence	
State (1):	44 Rhode Island	
Station:	NBI	
Region (2):	District 4	
Latitude (16):	41.7822937	
Longitude (17):	-71.4224576	
Owner (22):	01 State Highway Agency	
Custodian (21):	01 State Highway Agency	
Year Built (27):	1965	Border State: Not Applicable (P)
Year Recon (106):	1997	Border Number:
Historical (37):	5 Not eligible for NRHP	% Responsibility:

INSPECTION			
Date of Routine Inspection (90):	8/28/2023		
Frequency (91):	24		
Next Inspection:	8/28/2025		
Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Element	12	3/20/2024	8/28/2024
Fracture Critical (A)		1/1/1901	1/1/1901
Underwater (B)		1/1/1901	1/1/1901
Special Insp (C)	12	3/20/2024	8/28/2024

LOAD RATING AND POSTING	
Posting Status (41)	A Open, no restriction
Posting % (70):	5 At/Above Legal Loads
Rating Date:	12/10/2019
Design Load (31):	5 MS 18 (HS 20)
Opr Method (63):	8 LRFR (HL93)
Opr Rating (64):	43.60 Tons
Inv Method (65):	8 LRFR (HL93)
Inv Rating (66):	33.80 Tons

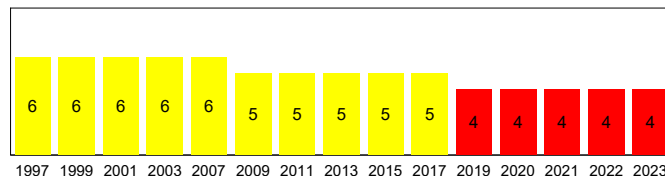
Complex Feature **B.IR.01:** N
NSTM **B.IR.04:** N

DECK GEOMETRY	
Deck Geometry (68):	6 Equal Min Criteria
Deck Area:	8,305.40
Deck Type (107):	1 Concrete-Cast-in-Place
Wearing Surface (108A):	6 Bituminous
Membrane (108B):	1 Built-up
Deck Protection (108C):	None
O. to O. Width (52):	28.54
Curb / Sidewalk Width L (50A):	1.97
Curb / Sidewalk Width R (50B):	1.97
Median (33):	0 No median



DECK CONDITION	
Deck Rating (58):	5 Fair
Bridge Rail (36A):	1 Meets Standards
Transition (36B):	0 Substandard
Approach Rail (36C):	0 Substandard
Approach Rail Ends (36D):	0 Substandard

SUPERSTRUCTURE GEOMETRY	
# of Main Spans (45):	3
# of Approach Spans (46):	0
Main Material (43 A):	3 Steel
Main Design (43 B):	02 Stringer/Girder
Max Span Length (48):	157.15
Structure Length (49):	291.01
NBIS Length (112):	Long Enough
Temp Structure (103):	Not Applicable (P)
Skew (34):	29
Structure Flared (35):	1 Yes, flared
Parallel Structure (101):	No bridge exists
Approach Alignment (72):	5 Above Tolerable



SUPERSTRUCTURE CONDITION	
Superstructure Rating (59):	4 Poor
Structure Evaluation (67):	4 Minimum Tolerable



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SUBSTRUCTURE GEOMETRY		
Navigation Control (38):	NA-no waterway	
Nav Vert Clearance (39):	0.00	
Nav Horiz Clearance (40):	0.00	
Pier Protection (111):	Not Applicable (P)	
Lift Bridge Vertical Clearance (116):		SUBSTRUCTURE CONDITION
Scour Rating (113):	N Not Over Waterway	Substructure Rating (60): 5 Fair
Waterway Adequacy (71):	N Not applicable	Channel Rating (61): N N/A (NBI)

ROUTE UNDER STRUCTURE: Wellington Avenue

ROADWAY LOCATION	ROADWAY CLASSIFICATION	CLEARANCES
Pos Prefix (5A): One Route Under	Funct Class (26): 19 Urban Local	Vertical (10): 17.00
Kind of Hwy (5B): 5 City Street	Level Service (5C): 1 Mainline	Min Vert Over (53): 99.99 17.00
Route Num (5D): 00000	NHS (104): 0 Not on NHS	Vert Ref (54A): H Hwy beneath struct
LRS Route (13A/B):	Defense Hwy (100): 0 Not a STRAHNET hwy	Horizontal (47): 30.00
Milepost (11):	Toll Facility (20): 3 On free road	Min Lat Left (56): 8.33
Suffix (5E): 0 N/A (NBI)	ADT (29): 1,000 Cars/Day	Min Lat Right (55B): 8.00
Lanes Under (28B): 2	Pct Trucks (109): 2.00%	Horiz Ref (55A): H Hwy beneath struct
Detour Length (19): 1.30 mi (2.09 km)	ADT Year (30): 2008	Underclearance (69): 5 Above Tolerable

ROUTE ON STRUCTURE: Ramp CB

ROADWAY LOCATION	ROADWAY CLASSIFICATION	CLEARANCES
Pos Prefix (5A): Route On Structure	Funct Class (26): 11 Urban Interstate	Vertical (10): 99.99
Kind of Hwy (5B): 1 Interstate Hwy	Level Service (5C): 7 Ramp	Min Vert Over (53): 99.99 17.00
Route Num (5D): 00095	NHS (104): 1 On the NHS	Vert Ref (54A): H Hwy beneath struct
LRS Route (13A/B): 40001500A/00	Defense Hwy (100): 0 Not a STRAHNET hwy	Horizontal (47): 21.98
Milepost (11): 0.06 mi (0.10 km)	Toll Facility (20): 3 On free road	Min Lat Left (56): 8.33
Suffix (5E): 0 N/A (NBI)	ADT (29): 7,776 Cars/Day	Min Lat Right (55B): 8.00
Lanes On (28A): 1	Pct Trucks (109): 4.00%	Horiz Ref (55A): H Hwy beneath struct
Detour Length (19): 0.78 mi (1.26 km)	ADT Year (30): 2023	Underclearance (69): 5 Above Tolerable

BRIDGE NOTES

ORIENTATION: The bridge is logged from west to east and the four (4) steel welded plate girders are labeled from north to south as Girders A through D. There is an additional stub girder in Span 1 labeled Girder AA.

EQUIPMENT REQUIRED: 60' Rail Mounted Truck, Hi-Rail Bucket Truck and underbridge lighting.

CONTRACTED PERSONNEL: AMTRAK personnel (Flaggers, A-men, Track Foreman and Supervisor).

TRAFFIC CONTROL: Traffic control for inspection over Wellington Avenue and rolling closure for topside inspection.

POLICE DETAIL NEEDED: Cranston Police on Wellington Avenue, RI State Police on I-95.

INSPECTION RESTRICTIONS: Underside inspection work over the railroad tracks is to be performed at night. Track work can begin approximately one (1) hour after the last train passes through electrification block.

ACCESS TO SITE: Equipment to mount track at Cranston Yard off Elmwood Avenue. G&W Railroad ROE permit and flaggers are required to access the Cranston Yard below the bridge. See Site Access Notes for further details.

MISCELLANEOUS INFORMATION: AMTRAK safety training is required before work can begin. Providence office AMTRAK contact Paul Dubuque (401) 413-9681.



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Bridge Condition Poor

INSPECTION NOTES

High Priority Special Inspection which included a full Routine and Special Inspection Completed by Commonwealth Engineers and Consultants, inc.
Team Leader(s): Matthew Brooks, Niverio Carvalho, P.E.
Team Members: Fernando Faria, Devin Patton
Inspection Dates: All dates in 2024 - 2/12, 2/25, 2/26, 2/27, 2/28, 3/5, 3/6, 3/8, 3/20
Weather: Varies, 10 degrees F to 54 degrees F

The scope of work for this project was to perform a high priority special inspection on this bridge which included a full routine and special inspection of the bridge.

No significant changes in the condition of the structure were observed during this inspection, and therefore the NBI condition ratings remain unchanged:

Deck (58) – 5 Fair
Superstructure (59) – 4 Poor
Substructure (60) – 5 Fair

MINIMUM VERTICAL CLEARANCE SIGN: The measured minimum vertical clearance (MVC) in Span #1 over Wellington Avenue is 17'-0", located at the southbound shoulder. The posted clearance sign on the north fascia of the bridge currently reads 17'-1" (See Photo 24). Per TAC 0406, the posted MVC for bridges should be 3" less than the actual measured minimum clearance. Therefore, the MVC sign should read 16'-9". Since the actual measured clearance is less than the posted sign, Form BI-016 was filled out and sent to RIDOT, and this form is also included with this submission (in accordance with BEPM 23-005, and the revised MVC notification protocols in RIDOT's memo dated 6/28/2024).

Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
12/3	Re Concrete Deck	8,310.00	93%	7,725.00	4%	368.00	3%	217.00	0%	0.00
510/3	Wearing Surfaces	6,402.00	0%	0.00	100%	6,372.00	1%	30.00	0%	0.00
3220/3	Crack (Wearing Surface)	6,402.00	0%	0.00	100%	6,372.00	1%	30.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	134.00	0%	0.00	50%	67.00	50%	67.00	0%	0.00
1090/3	Exposed Rebar	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	150.00	0%	0.00	0%	0.00	100%	150.00	0%	0.00
1130/3	Cracking (RC and Other)	300.00	0%	0.00	100%	300.00	0%	0.00	0%	0.00
107/3	Steel Opn Girder/Beam	1,087.00	77%	835.00	23%	252.00	0%	0.00	0%	0.00
515/3	Steel Protective Coating	4,484.00	0%	0.00	94%	4,232.00	0%	0.00	6%	252.00
3410/3	Chalk(Steel Protect Coatings)	4,148.00	0%	0.00	100%	4,148.00	0%	0.00	0%	0.00
3420/3	Peel/Bub/Crack(Stl Protect Coat)	336.00	0%	0.00	25%	84.00	0%	0.00	75%	252.00
1000/3	Corrosion	250.00	0%	0.00	100%	250.00	0%	0.00	0%	0.00
1900/3	Distortion	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
205/3	Re Conc Column	4.00	0%	0.00	0%	0.00	75%	3.00	25%	1.00
1080/3	Delamination/Spall/Patched Area	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
1090/3	Exposed Rebar	1.00	0%	0.00	0%	0.00	0%	0.00	100%	1.00
1120/3	Efflorescence/Rust Staining	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
1130/3	Cracking (RC and Other)	1.00	0%	0.00	0%	0.00	100%	1.00	0%	0.00
8368/3	Graffiti	50.00	100%	50.00	0%	0.00	0%	0.00	0%	0.00
210/3	Re Conc Pier Wall	76.00	0%	0.00	87%	66.00	13%	10.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	73.00	0%	0.00	86%	63.00	14%	10.00	0%	0.00
1090/3	Exposed Rebar	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
8368/3	Graffiti	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
215/3	Re Conc Abutment	50.00	0%	0.00	28%	14.00	72%	36.00	0%	0.00



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1080/3	Delamination/Spall/Patched Area	26.00	0%	0.00	0%	0.00	100%	26.00	0%	0.00
1120/3	Efflorescence/Rust Staining	10.00	0%	0.00	0%	0.00	100%	10.00	0%	0.00
1130/3	Cracking (RC and Other)	14.00	0%	0.00	100%	14.00	0%	0.00	0%	0.00
8368/3	Graffiti	80.00	100%	80.00	0%	0.00	0%	0.00	0%	0.00
234/3	Re Conc Pier Cap	54.00	35%	19.00	13%	7.00	52%	28.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	16.00	0%	0.00	0%	0.00	100%	16.00	0%	0.00
1090/3	Exposed Rebar	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	12.00	0%	0.00	0%	0.00	100%	12.00	0%	0.00
1130/3	Cracking (RC and Other)	6.00	0%	0.00	100%	6.00	0%	0.00	0%	0.00
8368/3	Graffiti	30.00	100%	30.00	0%	0.00	0%	0.00	0%	0.00
301/3	Pourable Joint Seal	44.00	0%	0.00	100%	44.00	0%	0.00	0%	0.00
2320/3	Seal Adhesion	14.00	0%	0.00	100%	14.00	0%	0.00	0%	0.00
2360/3	Adjacent Deck or Header	30.00	0%	0.00	100%	30.00	0%	0.00	0%	0.00
310/3	Elastomeric Bearing	25.00	36%	9.00	64%	16.00	0%	0.00	0%	0.00
515/3	Steel Protective Coating	50.00	0%	0.00	52%	26.00	48%	24.00	0%	0.00
3420/3	Peel/Bub/Crack(Stl Protect Coat)	50.00	0%	0.00	52%	26.00	48%	24.00	0%	0.00
1000/3	Corrosion	12.00	0%	0.00	100%	12.00	0%	0.00	0%	0.00
1020/3	Connection	3.00	0%	0.00	100%	3.00	0%	0.00	0%	0.00
2240/3	Loss of Bearing Area	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
321/3	Re Conc Approach Slab	616.00	100%	616.00	0%	0.00	0%	0.00	0%	0.00
510/3	Wearing Surfaces	616.00	91%	561.00	4%	25.00	5%	30.00	0%	0.00
3220/3	Crack (Wearing Surface)	55.00	0%	0.00	45%	25.00	55%	30.00	0%	0.00
8107/3	Steel Opn Girder/Beam ENI	125.00	79%	99.00	8%	10.00	9%	11.00	4%	5.00
515/3	Steel Protective Coating	516.00	0%	0.00	19%	100.00	40%	208.00	40%	208.00
3420/3	Peel/Bub/Crack(Stl Protect Coat)	516.00	0%	0.00	19%	100.00	40%	208.00	40%	208.00
1000/3	Corrosion	26.00	0%	0.00	38%	10.00	42%	11.00	19%	5.00
8368/3	Graffiti	40.00	100%	40.00	0%	0.00	0%	0.00	0%	0.00
8213/3	R/C Return Wall	80.00	0%	0.00	99%	79.00	0%	0.00	1%	1.00
1080/3	Delamination/Spall/Patched Area	1.00	0%	0.00	0%	0.00	0%	0.00	100%	1.00
1120/3	Efflorescence/Rust Staining	78.00	0%	0.00	100%	78.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
8368/3	Graffiti	10.00	100%	10.00	0%	0.00	0%	0.00	0%	0.00
8218/3	Backwall, All Types	50.00	0%	0.00	46%	23.00	54%	27.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	22.00	0%	0.00	0%	0.00	100%	22.00	0%	0.00
1090/3	Exposed Rebar	5.00	0%	0.00	0%	0.00	100%	5.00	0%	0.00
1120/3	Efflorescence/Rust Staining	22.00	0%	0.00	100%	22.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
8368/3	Graffiti	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
8305/3	Asphaltic Joint Material	44.00	0%	0.00	50%	22.00	50%	22.00	0%	0.00
2320/3	Seal Adhesion	44.00	0%	0.00	50%	22.00	50%	22.00	0%	0.00
8335/3	Guardrail, Vehicular	682.00	0%	0.00	98%	667.00	2%	15.00	0%	0.00
515/3	Steel Protective Coating	1,365.00	0%	0.00	85%	1,165.00	15%	200.00	0%	0.00
3440/3	Eff (Stl Protect Coat)	1,365.00	0%	0.00	85%	1,165.00	15%	200.00	0%	0.00
1000/3	Corrosion	669.00	0%	0.00	100%	666.00	0%	3.00	0%	0.00
7000/3	Damage	13.00	0%	0.00	8%	1.00	92%	12.00	0%	0.00
8336/3	Conc Bridge Parapet	674.00	0%	0.00	99%	668.00	1%	6.00	0%	0.00
1020/3	Connection	6.00	0%	0.00	0%	0.00	100%	6.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00



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Elm/Env	Description	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
1090/3	Exposed Rebar	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
1120/3	Efflorescence/Rust Staining	333.00	0%	0.00	100%	333.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	333.00	0%	0.00	100%	333.00	0%	0.00	0%	0.00
8368/3	Graffiti	5.00	100%	5.00	0%	0.00	0%	0.00	0%	0.00
8367/3	Slope Blocks	2,000.00	0%	0.00	100%	2,000.00	0%	0.00	0%	0.00
8370/3	Steel Diaphragms	64.00	0%	0.00	86%	55.00	13%	8.00	2%	1.00
515/3	Steel Protective Coating	2,000.00	0%	0.00	98%	1,950.00	3%	50.00	0%	0.00
3410/3	Chalk(Steel Protect Coatings)	1,950.00	0%	0.00	100%	1,950.00	0%	0.00	0%	0.00
3420/3	Peel/Bub/Crack(Stl Protect Coat)	50.00	0%	0.00	0%	0.00	100%	50.00	0%	0.00
1000/3	Corrosion	63.00	0%	0.00	86%	54.00	13%	8.00	2%	1.00
1900/3	Distortion	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
8368/3	Graffiti	15.00	100%	15.00	0%	0.00	0%	0.00	0%	0.00
8398/3	Curb/sidewalks - Con	674.00	95%	642.00	5%	31.00	0%	1.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	26.00	0%	0.00	96%	25.00	4%	1.00	0%	0.00
4000/3	Settlement	6.00	0%	0.00	100%	6.00	0%	0.00	0%	0.00
8428/3	Pro Screen Barrier	130.00	100%	130.00	0%	0.00	0%	0.00	0%	0.00
8368/3	Graffiti	100.00	100%	100.00	0%	0.00	0%	0.00	0%	0.00

ELEMENT NOTES

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
12	Re Concrete Deck	3	8,310.00	sq.ft	7,725.00	368.00	217.00	0.00

There is a reinforced concrete deck overlaid with a bituminous wearing surface that was observed to have light debris along the curbs throughout (see photos 7, 10 and 13). The underside of deck between the girders is labeled from Bay "A" through Bay "C" in Spans 2 and 3 and from Bay "AA" through Bay "C" in Span 1, from north to south (see photos 46 and 50). There are overhangs at the north and south sides of the bridge that were observed to have areas of cracking with efflorescence, rust staining, leakage staining and spalls with exposed reinforcing, especially at the piers (see photos 32, 51, 53, 59, 61, 62 and 67). The underside of the reinforced concrete deck has numerous hollow areas, spalls with and without exposed rebar, hairline longitudinal cracks and map cracks with efflorescence, isolated hairline transverse cracks with efflorescence, and areas of scaling (see photos 32, 34, 35, 46-62 and 67). Refer to the attached document "Element 12 - Re Conc Deck" for specific conditions.

510	Wearing Surfaces	3	6,402.00	sq.ft	0.00	6,372.00	30.00	0.00
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The bridge is overlaid with a bituminous wearing surface (see photos 7, 10 and 13). The wearing surface has light accumulation of debris along the shoulders of the bridge and approaches (see photos 7, 9, 10, 12, 15 and 21).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3220	Crack (Wearing Surfac	3	6,402.00	sq.ft	0.00	6,372.00	30.00	0.00

There are scattered areas of hairline to narrow width transverse, longitudinal, and map cracking (See Photos 7, 10, 13).

In Span #2, along the Pier #1 joint, there is heavy transverse/map cracking up to 1/2" wide x up to full width of roadway (See Photo 8).

1080	Delamination/Spall/Patched Are3	134.00	sq.ft	0.00	67.00	67.00	0.00
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Bridge Condition **Poor**

The underside of the reinforced concrete deck has numerous hollow areas measuring up to 5'-8" long x 3'-8" wide, spalls with and without exposed rebar measuring up to 18" long x up to 2'-0" wide x up to 12" deep and isolated areas of scaling (see photos 32, 34, 35, 46-62 and 67).

Refer to the attached document "Element 12 - Re Conc Deck" for specific conditions.

1090	Exposed Rebar	3	1.00	sq.ft	0.00	1.00	0.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patch for conditions.

Refer to the attached document "Element 12 - Re Conc Deck" for specific conditions.

1120	Efflorescence/Rust Staining	3	150.00	sq.ft	0.00	0.00	150.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

Refer to the attached document "Element 12 - Re Conc Deck" for specific conditions.

1130	Cracking (RC and Other)	3	300.00	sq.ft	0.00	300.00	0.00	0.00
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The underside of deck has scattered areas of hairline longitudinal and map cracks with efflorescence and rust staining, most notably on the overhangs at the piers (see photos 32, 34, 35, 46-62 and 67).

Refer to the attached document "Element 12 - Re Conc Deck" for specific conditions.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Opn Girder/Beam	3	1,087.00	ft	835.00	252.00	0.00	0.00

There are three (3) simple steel girder spans oriented from west to east with four (4) steel welded plate girders labeled Girder "A" through "D" from the north to south in each span (see photos 46 and 50). There is an additional stub girder labeled Girder "AA" in Span 1 (see photo 28). In Span 2, the north end of the Girder "A" bottom flange over Track 2 has moderate rust at the ground connections and the underside has a few arc burns (see photo 73).

515	Steel Protective Coating	3	4,484.00	sq.ft	0.00	4,232.00	0.00	252.00
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The girders have a chalky, faded and peeling protective paint system throughout (see photos 46, 50 and 67).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3410	Chalk(Steel Protect Co 3		4,148.00	sq.ft	0.00	4,148.00	0.00	0.00

The steel protective coating has scattered areas of chalky, faded and peeling paint throughout (see photos 46, 50 and 67).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	Peel/Bub/Crack(Stl Prc 3		336.00	sq.ft	0.00	84.00	0.00	252.00

The steel girders typically have scattered areas of peeling paint with light to moderate rust along the flanges and lower webs throughout (see photos 46, 50 and 67).

1000	Corrosion	3	250.00	ft	0.00	250.00	0.00	0.00
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The steel girders typically have scattered areas of peeling paint with light to moderate rust along the flanges and lower webs throughout (see photos 46, 50 and 67).

In Span 1, the south legs of the Girder "A" and the north leg of Girder "AA" top flanges have heavy rust with isolated areas of up to 1/4" section loss mostly near midspan. At the quarter point of Span 1, the Girder 'AA' north leg has heavy rust to the flanges and entire web (see photo 67).

In Span 2, the north face of Girder "A" has heavy rust on the flanges for the lower 6" of web from midspan to Pier #2.



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Bridge Condition Poor

1900	Distortion	3	2.00	ft	0.00	2.00	0.00	0.00
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In Span 1, the north leg of the bottom flange of Girder AA is bent out-of-plane upwards up to 1/2" x 16" long at midspan (see photo 67).

In Span 3, the north face of Girder A has minor web distortion for up to full length.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
205	Re Conc Column	3	4.00	each	0.00	0.00	3.00	1.00

There are two (2) reinforced concrete columns at Piers 1 and 2 labeled Column "A" and Column "B" from the north to south (see photos 37, 38 and 42 - 45).

1080	Delamination/Spall/Patched Area	3	1.00	each	0.00	0.00	1.00	0.00
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The reinforced concrete columns typically have scattered hollow areas and isolated spalls, some with exposed rebar. The Pier 2 columns have heavy map cracking and vertical cracks.

Specific deficiencies are as follows:

PIER 1:

Column "A": The west face of the column has a hollow area at the base measuring 15" wide x 21" high and a 27" wide x up to 13" high hollow area at the top with a 9" long X 6" high x 1" deep spall (see photo 37).

PIER 2:

Column "A": The column has a cracked hollow area with rust staining measuring full height x full width (see photo 42, 43 and 45).

Column "B": The south face of the column has a spall with exposed and debonded rebar and stirrups, eleven (11) of which are severed, measuring up to 20" long x full height x up to 3" deep, and the remaining circumference of the column has a full height hollow area with heavy map cracking, vertical cracks measuring up to 3/4" wide and rust staining (see photos 42, 44 and 45).

1090	Exposed Rebar	3	1.00	each	0.00	0.00	0.00	1.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

1120	Efflorescence/Rust Staining	3	1.00	each	0.00	0.00	1.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

1130	Cracking (RC and Other)	3	1.00	each	0.00	0.00	1.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

8368	Graffiti	3	50.00	each	50.00	0.00	0.00	0.00
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The columns have moderate graffiti and anti-graffiti paint throughout (see photos 37, 38 and 42 - 45).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
210	Re Conc Pier Wall	3	76.00	ft	0.00	66.00	10.00	0.00

There are reinforced concrete crash walls at Piers 1 and 2 (see photos 37, 38 and 42 - 45).



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Bridge Condition Poor

1080	Delamination/Spall/Patched Area	73.00	ft	0.00	63.00	10.00	0.00
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The reinforced concrete pier walls have scattered hollow areas and isolated spalls, some with exposed rebar.

Specific deficiencies are noted as below:

PIER 1:

The pier wall has scattered hollow areas throughout the east face (see photo 38).

The east face of the pier wall at the base has a spall with exposed rebar at the north end measuring 20" wide x 2'-9" high x up to 8" deep.

The west face of the pier wall at the north end has a spall with exposed rebar measuring 14" wide x 10" high x 7" deep at the top corner (see photo 37).

PIER 2:

Below Bay "B", the west face of the pier wall has a cracked hollow area at the base measuring 7'-0" wide x up to full height.

The west face of the pier wall has a cracked hollow area at the south end along the top measuring 12'-0" wide x up to 5'-0" high.

Below the pier cap construction joint, the east face of the pier wall has a hollow area measuring 9" wide x 6-1/4" high with a spall measuring 3" wide x 2" high x 1-1/4" deep.

Below Bays "A" and "B", the east face of the pier wall has a cracked hollow area at the top measuring 5'-10" wide x 20" high.

Below Bay "A", the east face of the pier wall has a hollow area measuring 2'-0" wide x 2'-4" high with an adjacent spall at the base measuring 10" wide x up to 5" high x 2" deep.

Below Bay "C", the east face of the pier wall has two (2) cracked hollow areas at the top measuring 5'-6" wide x up to 2'-6" high and 20" wide x 2'-8" high.

The north face of the pier wall has minor spalls with hairline map cracking on the top.

1090	Exposed Rebar	3	1.00	ft	0.00	1.00	0.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

1130	Cracking (RC and Other)	3	1.00	ft	0.00	1.00	0.00	0.00
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The pier walls have isolated areas of hairline to 3/8" wide horizontal, vertical and map cracking with efflorescence and rust staining throughout.

Specific deficiencies are noted as below:

PIER 2:

Between Columns "A" and "B", the east face of the pier wall has a horizontal crack measuring 1/8" wide x 4'-1" long and the top face of the pier wall has a horizontal crack measuring up to 3/8" wide x full length between the columns.

Below Column "B", the east face of the pier wall has a vertical crack measuring up to 1/8" wide x 20" high.

8368	Graffiti	3	1.00	ft	1.00	0.00	0.00	0.00
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Bridge Condition Poor

The pier walls have moderate to heavy graffiti throughout (see photos 37, 38 and 42 - 45).

The signs on the west face of Pier 2 are painted over (see photo 42).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
215	Re Conc Abutment	3	50.00	ft	0.00	14.00	36.00	0.00

There are two reinforced concrete abutments labeled West Abutment #1 at the west end and East Abutment #2 at the east end (see photos 28 and 33). The Abutment 2 bridge seat has heavy debris throughout (see photos 34, 35 and 36).

1080	Delamination/Spall/Patched Area	3	26.00	ft	0.00	0.00	26.00	0.00
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There are scattered hollow areas and spalls at the abutments.

Specific conditions are as follows:

West Abutment #1:

Below the north overhang: There is a spall measuring 5" long x 8" wide x up to 2" deep.

Below Girder "AA": There is a cracked hollow area measuring 4' wide x 2' high with rust staining (see photo 28).

Below Bay "AA": There is a cracked hollow area measuring 16" wide x 39" high with a spalling up to 2" deep (see photo 28).

Below Bay "B": There is a hollow area measuring 2'-6" wide x 12" high.

Below Girder "C": There is a hollow area measuring 10" in diameter.

Below Bay "C": There is a hollow area measuring 55" wide x 45" high (see photo 28).

East Abutment #2:

Below Bay "A": There is a cracked hollow area measuring 7' wide x up to 3' high with a spall along the top measuring 3'-4" wide x 8" high x 3" deep (see photos 35).

Below Bay "B": There is a hollow area measuring 15" wide x 10" high (see photo 33).

Below Bay "C": There is a cracked hollow area at the top measuring 3'-9" wide x up to 20" high (see photo 36).

1120	Efflorescence/Rust Staining	3	10.00	ft	0.00	0.00	10.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

1130	Cracking (RC and Other)	3	14.00	ft	0.00	14.00	0.00	0.00
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The abutments have scattered hairline horizontal and vertical cracks throughout, some with light efflorescence and rust staining (see photos 28, 33, 35 and 36).

8368	Graffiti	3	80.00	ft	80.00	0.00	0.00	0.00
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The West Abutment #1 stem has anti-graffiti paint throughout (see photo 28) and the East Abutment #2 stem has faded/light graffiti throughout (see photos 33 and 36).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
234	Re Conc Pier Cap	3	54.00	ft	19.00	7.00	28.00	0.00



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Bridge Condition Poor

There are two reinforced concrete pier caps at Piers 1 and 2. The pier caps have scattered spalls and cracked hollow areas, some with light to heavy rust staining with light to moderate accumulation of sand and debris (see photos 37 – 45, 69, 86).

1080	Delamination/Spall/Patched Area	3	16.00	ft	0.00	0.00	16.00	0.00
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Pier 1, East Face:

Below Girder "B": 20" high x 15" wide hollow area with edge spalling (see photo 39).

Below Girder "C": 11" high x 17" wide hollow area that is surrounding a 4" high x 14" wide x 1/2" deep spall with an adjacent hairline to narrow width diagonal crack (see photo 40).

Below Girder "D": The pier cap has a spall measuring 8" wide x 4" high x 1" deep (see photo 41).

Pier 2, West Face:

Below Girder "A": The pier cap has a spall at the top measuring 2'-0" wide x 4" high x 1" deep and an 18" wide x 32" high hollow area (see photo 42).

Below Bay "A" at bottom: The pier cap has a spall with exposed and debonded rebar at the bottom of the west face measuring 7'-6" wide x 12" high x 4" deep which extends on to the north face measuring full length x 20" wide x 4" deep with exposed and debonded stirrups (see photos 42 and 43).

Below Bay "A" at mid-height: 6" diameter hollow area and 41" long x 18" high hollow area with 1/4" deep spalling (see photo 42).

Below Bay "B": The pier cap has a corner spall with exposed rebar measuring at the bottom of the west face measuring 10'-6" wide x 8" high x 9" long (underside) x up to 4" deep (see photo 42).

Pier 2, East Face:

Below Bay "B": The pier cap has a hollow area measuring 18" wide x 2'-4" high (see photo 45).

Below Bay "C": The pier cap has a hollow area measuring 6" wide x full height (see photo 45).

Pier 2, North Face:

On top face: 1'-0" long x 17" wide x 6" deep spall with crumbling concrete and debris.

Pier 2, Underside:

Below all bays: The underside of the pier cap is hollow for its full-length x full width (see photo 43, 44).

1090	Exposed Rebar	3	1.00	ft	0.00	1.00	0.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

1120	Efflorescence/Rust Staining	3	12.00	ft	0.00	0.00	12.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

1130	Cracking (RC and Other)	3	6.00	ft	0.00	6.00	0.00	0.00
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Bridge Condition Poor

The pier caps have scattered hairline horizontal and diagonal cracks and isolated hairline map cracks, some with efflorescence and rust staining (see photos 37, 38, 40, 42 and 45).

Pier #1 west face has scattered up full height vertical hairline cracks with efflorescence (see photo 37).

Pier #2 west face below Bay 'C' has an up to 4' long x 1/16" wide diagonal crack (see photo 42).

8368	Graffiti	3	30.00	ft	30.00	0.00	0.00	0.00
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Both of the reinforced pier caps were observed to have areas of light/faded graffiti (see photos 37, 38 and 45).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
301	Pourable Joint Seal	3	44.00	ft	0.00	44.00	0.00	0.00

There are pourable joint seals at West Abutment #1 and East Abutment #2 that were observed to have areas of seal adhesion separation and adjacent scattered cracking (see photos 5 and 14).

2320	Seal Adhesion	3	14.00	ft	0.00	14.00	0.00	0.00
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The pourable joint seals have isolated areas of up to 1" wide seal adhesion separations (see photos 5 and 14).

2360	Adjacent Deck or Header	3	30.00	ft	0.00	30.00	0.00	0.00
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There are transverse, longitudinal and map cracks up to 1/2" wide adjacent to the joints at Abutments 1 and 2 (see photos 5 and 14).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
310	Elastomeric Bearing	3	25.00	each	9.00	16.00	0.00	0.00

There are elastomeric bearings at Girders "A" through "D" at the beam ends in Spans 1 through 3 (see photos 64, 66, 68 - 72, 74-76, 79, 83, 86, 87, 88, 90). There is an additional elastomeric bearing at Girder "AA" at West Abutment #1 in Span 1 (see photo 29 and 63). Bearing 'A' at West Abutment #1 has a 2-1/2" long x 3/4" wide cut-out on the north face (see photo 64) and 3" long x 1/2" wide cut-out on the south face.

515	Steel Protective Coating	3	50.00	sq.ft	0.00	26.00	24.00	0.00
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The bearings have a painted steel protective coating (see photos 64, 66, 68 - 72, 74-76, 79, 83, 86, 87, 88, 90).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
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3420	Peel/Bub/Crack(Stl Prc 3		50.00	sq.ft	0.00	26.00	24.00	0.00
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The bearings have scattered peeling paint throughout, most notably at the exterior bearings (see photos 64, 66, 68 - 72, 74-76, 79, 83, 86, 87, 88, 90).

1000	Corrosion	3	12.00	each	0.00	12.00	0.00	0.00
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The bearings typically have scattered light to moderate rust throughout with moderate to heavy rust and up to 1/8" section loss at the exterior bearings (see photos 64, 66, 68 - 72, 74-76, 79, 83, 86, 87, 88, 90).

1020	Connection	3	3.00	each	0.00	3.00	0.00	0.00
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Bridge Condition Poor

West Abutment #1:

Bearing "B": The north anchor bolt nut is backed off 1/4".

Bearing "D": The south anchor bolt is bent to the south (see photo 66).

Pier 1, Span 1:

Bearing "B": The south anchor bolt is bent to the south (see photo 76).

2240	Loss of Bearing Area	3	1.00	each	0.00	1.00	0.00	0.00
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At West Abutment #1, the Bearing "D" masonry plate overhangs the bridge seat at the southwest corner up to 1-1/2" which appears to be an as-built condition (see photo 66).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
321	Re Conc Approach Slab	3	616.00	sq.ft	616.00	0.00	0.00	0.00

There are reinforced concrete approach slabs at the east and west approaches which are overlaid with a bituminous wearing surface (see photos 4, 5, 14 and 15).

510	Wearing Surfaces	3	616.00	sq.ft	561.00	25.00	30.00	0.00
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The reinforced concrete approach slabs are overlaid with a bituminous wearing surface (see photos 4, 5, 14 and 15).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3220	Crack (Wearing Surfac	3	55.00	sq.ft	0.00	25.00	30.00	0.00

The approach wearing surfaces exhibit transverse, longitudinal, and map cracking up to 1/2" wide (1/8"-1/4" average width). (see photos 1, 4 and 15).

There are transverse/map cracks up to 1/2" wide at the east and west approaches along the abutment joints (see photos 4, 5, 14 and 15).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8107	Steel Opn Girder/Beam ENDS	3	125.00	ft	99.00	10.00	11.00	5.00

This element is used to quantify and document conditions located within the end 5'-0" of the steel plate girders (see photos 28, 33 – 36, 41, 44, 59, 63, 65, 66, 68 – 72, 74 - 90).

515	Steel Protective Coating	3	516.00	sq.ft	0.00	100.00	208.00	208.00
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The girder ends have a mostly failed protective paint system (see photos 28, 33 – 36, 41, 44, 59, 63, 65, 66, 68 – 72, 74 - 90).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	Peel/Bub/Crack(Stl Prc	3	516.00	sq.ft	0.00	100.00	208.00	208.00

The girder ends have a failed and peeling protective paint throughout (see photos 28, 33 – 36, 41, 44, 59, 63, 65, 66, 68 – 72, 74 - 90).

1000	Corrosion	3	26.00	ft	0.00	10.00	11.00	5.00
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Bridge Condition Poor

The girder webs have heavy corrosion with isolated areas of 100% section loss at the beam ends, typically beyond the bearing stiffeners. The worst areas of web section loss are typically at the exterior girders and in some locations, beyond the bearings (see photos 28, 33 – 36, 41, 44, 59, 63, 65, 66, 68 – 72, 74 - 90).

The bottom flanges have scattered areas of section loss at the beam ends, with isolated areas of 100% section loss (see photos 79, 82, 83, 86, 87).

The bearing stiffeners have section loss along the bottom 12" with isolated holes (see photos 28, 33 – 36, 41, 44, 59, 63, 65, 66, 68 – 72, 74 - 90).

Refer to the attached document "Element 8107 - Steel Open Girder Ends" for specific conditions.

8368	Graffiti	3	40.00	ft	40.00	0.00	0.00	0.00
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There are scattered areas of graffiti at the beam ends at the abutments (see photos 34, 35, 36, 89, 90).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8213	R/C Return Wall	3	80.00	ft	0.00	79.00	0.00	1.00

There are reinforced concrete return walls at all four corners of the bridge (see photos 26, 27 and 34).

1080	Delamination/Spall/Patched Area	3	1.00	ft	0.00	0.00	0.00	1.00
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At the northwest return wall, there is a spall with loss of backfill material at the top of the construction joint measuring 6" long x 30" high x 24" deep (see photo 26).

At the West Abutment #1 backwall, the southwest return wall has a hollow area measuring 6" long x 2'-8" high (see photo 27).

1120	Efflorescence/Rust Staining	3	78.00	ft	0.00	78.00	0.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

1130	Cracking (RC and Other)	3	1.00	ft	0.00	1.00	0.00	0.00
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The reinforced concrete return walls have hairline map cracking with light to moderate efflorescence and leakage staining throughout (see photos 26, 27 and 34).

8368	Graffiti	3	10.00	ft	10.00	0.00	0.00	0.00
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There is anti-graffiti paint on the southwest return wall (see photo 27).

There is light to moderate graffiti on the southeast return wall.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8218	Backwall, All Types	3	50.00	ft	0.00	23.00	27.00	0.00

There are reinforced concrete backwalls at the abutments that were observed to have areas of cracking, spalling with exposed reinforcing, efflorescence, rust staining, leakage staining and light graffiti (see photos 28 – 36 and 88 - 90).

1080	Delamination/Spall/Patched Area	3	22.00	ft	0.00	0.00	22.00	0.00
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Bridge Condition Poor

West Abutment #1:

At the north end: At the top there is a 33" wide x up to 26" high x up to 3-1/2" deep spall with exposed reinforcing with up to 25% section loss that extends 3" onto the north face of the abutment. At the bottom there is a 2'-4" wide x 8" high x 2" deep spall that extends 6" onto the north face of the abutment. See photo 29.

Below Bays "A" & "B": There are two (2) spalls with exposed reinforcing at the top measuring 18" wide x 6" high x 2" deep (Bay B) and 8" wide x 4" high x 2" deep (Bay A) (see photo 30).

Behind Girder "C": There is a spall with exposed reinforcing measuring 3' wide x 25" high x 3" deep (see photo 31).

Below Bay "C": There is heavy scaling, most notably at the top, with heavy efflorescence and leakage staining.

Below Bay "C" at Girder "D": There is a spall at the top measuring 8" wide x 4" high x 1" deep.

At the south end: There is an area of heavy scaling/spalling at the top measuring 16" wide x 2'-2" high x 5" deep and the adjacent concrete is cracked and hollow; daylight was observed from underneath the joint (see photo 32).

East Abutment #2:

Below Bay "A": The backwall has a severe spall with exposed and debonded rebar at the north end that extends into Bay "A" measuring 4' wide x full height x up to 14" deep (see photos 34, 35, 88 and 89).

Below Bays "B" and "C": The backwall has a spall at the top measuring up to full bay width x up to 12" high x up to 6" deep.

Below Bay "C": The backwall has a spall with exposed rebar behind Girder "D" measuring up to 2'-8" wide x 3'-8" high x up to 12" deep (see photos 36, 90).

South end: The backwall has a hollow area measuring 2' wide x full height.

1090	Exposed Rebar	3	5.00	ft	0.00	0.00	5.00	0.00
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Refer to Defect 1080 - Delamination/Spall/Patched Area for conditions.

1120	Efflorescence/Rust Staining	3	22.00	ft	0.00	22.00	0.00	0.00
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Refer to Defect 1130 - Cracking (RC and Other) for conditions.

1130	Cracking (RC and Other)	3	1.00	ft	0.00	1.00	0.00	0.00
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The backwalls have scattered hairline map cracking and narrow horizontal and vertical cracks, some with light to heavy efflorescence and rust staining throughout (see photos 28 and 31).

8368	Graffiti	3	1.00	ft	1.00	0.00	0.00	0.00
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The backwall at East Abutment #2 has isolated areas of light to moderate graffiti (see photos 33, 35 and 36).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8305	Asphaltic Joint Material	3	44.00	ft	0.00	22.00	22.00	0.00

There are asphaltic joints at Piers 1 and 2 that were observed to have areas of adhesion separation and minor wear/settlement of the joint material (see photos 8, 9, 11 and 12). There is light accumulation of debris at the shoulders (see photo 9).



RIDOT Bridge Inspection Report

066201
Ramp CB

Inspected By AECOM-COMMONWEALTH

Inspector: MATT BROOKS

Inspection Date

03/20/2024

Bridge Condition Poor

2320	Seal Adhesion	3	44.00	ft	0.00	22.00	22.00	0.00
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The asphaltic joints have isolated areas of minor wear and seal adhesion separation at the edges (see photo 8,11). Pier #1 has several locations of adhesion separation along the joint with an area of separation measuring up to 3" wide x 1" deep that is filled with sand/debris at the south shoulder, and the previously noted separation measuring 3" wide x 4" deep at the north shoulder has been paved over/patched (see photos 8 and 9). Pier #2 has several locations of separations measuring up to 1-1/2" throughout the joint (see photo 11).

Below deck, evidence of leakage was observed at the pier caps (see photos 37-39, 41, 42 and 45).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8335	Guardrail, Vehicular	3	682.00	ft	0.00	667.00	15.00	0.00

There are steel W-beam guardrails attached to the reinforced concrete bridge parapets at the north and south sides of the bridge which continue on to the approaches except at the southeast approach where it transitions to a concrete jersey barrier (see photos (see photos 1 - 3, 6, 7, 9, 10, 12, 13, 16 - 18, 20 and 21). The jersey barrier at the southeast approach exhibits hairline cracks with moisture staining and rust staining along the lower portion (see photo 18).

515	Steel Protective Coating	3	1,365.00	sq.ft	0.00	1,165.00	200.00	0.00
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The steel W-beam guardrails have a galvanized protective coating (see photos 1 - 3, 6, 7, 9, 10, 12, 13, 16, 17, 20 and 21).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3440	Eff (Stl Protect Coat)	3	1,365.00	sq.ft	0.00	1,165.00	200.00	0.00

The guardrails exhibit scattered areas where the steel protective coating has limited effectiveness with heavy rust (see photos 1 - 3, 6, 7, 9, 10, 12, 13, 16, 17, 20 and 21).

1000	Corrosion	3	669.00	ft	0.00	666.00	3.00	0.00
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At the southeast transition to the jersey barrier, the guardrail has an area of 100% loss (see photo 17).

The guardrails exhibit scattered areas where the steel protective coating has limited effectiveness with heavy rust (see photos 1 - 3, 6, 7, 9, 10, 12, 13, 16, 17, 20 and 21).

7000	Damage	3	13.00	ft	0.00	1.00	12.00	0.00
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The guardrails have scattered areas of minor impact scrapes throughout (see photos 1, 3, 16, 20 and 21).

At the west approach, the north guardrail has an area of impact damage measuring 6'-0" long with a detached post block (see photo 1).

At Pier 2, the north guardrail has an area of impact damage measuring 6' long (see photo 12).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8336	Conc Bridge Parapet	3	674.00	ft	0.00	668.00	6.00	0.00

There are concrete bridge parapets with a mounted metal top rail at the north and south side of the bridge (see photos 6, 7, 10, 12, 13, 16, 27 and 67).

1020	Connection	3	6.00	ft	0.00	0.00	6.00	0.00
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At Pier #2, the north parapet has a section of one-bar rail that is partially disconnected from the stanchion (See Photo 12).



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Bridge Condition Poor

1080	Delamination/Spall/Patched Area	3	1.00	ft	0.00	1.00	0.00	0.00
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At the underside of the west end of the south parapet, there are two (2) shallow rebar spalls measuring up to 4" long x 10" wide x 1" deep (see photo 27).

1090	Exposed Rebar	3	1.00	ft	0.00	1.00	0.00	0.00
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See Defect 1080 – Delamination/Spall/Patched Area for comments.

1120	Efflorescence/Rust Staining	3	333.00	ft	0.00	333.00	0.00	0.00
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At the joint between the parapets and the deck, there is efflorescence, rust staining and active moisture (see photo 67).

1130	Cracking (RC and Other)	3	333.00	ft	0.00	333.00	0.00	0.00
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The parapets were observed to have scattered horizontal cracks up to 1/16" wide (see photo 12).

8368	Graffiti	3	5.00	ft	5.00	0.00	0.00	0.00
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There is light graffiti on the northeast endpost (see Photo 16).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8367	Slope Blocks	3	2,000.00	sq.ft	0.00	2,000.00	0.00	0.00

There are concrete slope blocks at the embankments of the abutments (see photos 28 and 33). The slope blocks have scattered areas of light scaling, light accumulation of debris and light to heavy vegetation growth at the ends (see photos 28 and 33). In Span 3, the slope blocks were observed to have heavy accumulation of debris along the Pier 2 crash wall (see photo 45).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8370	Steel Diaphragms	3	64.00	each	0.00	55.00	8.00	1.00

There are steel diaphragms in Spans 1 through 3 labeled from west to east with the diaphragms at the piers and abutments labeled end diaphragms. The diaphragms were observed to have peeling paint with light to heavy rust and minor section loss (see photos 28, 35, 36, 45, 46, 50, 84, 85, 89 and 90). There is lateral bracing between diaphragms in Span #2 (see photos 50).

515	Steel Protective Coating	3	2,000.00	sq.ft	0.00	1,950.00	50.00	0.00
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The steel diaphragms protective coating has chalky and faded areas with areas of peeling paint with light to moderate rust (see photos 28, 35, 36, 45, 46, 50, 84, 85, 89 and 90).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3410	Chalk(Steel Protect Co 3		1,950.00	sq.ft	0.00	1,950.00	0.00	0.00
<p>The diaphragms protective coating has chalky and faded areas (see photos 28, 35, 36, 45, 46, 50, 84, 85, 89 and 90).</p>								

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3420	Peel/Bub/Crack(Stl Prc 3		50.00	sq.ft	0.00	0.00	50.00	0.00
<p>The diaphragms have scattered areas of peeling paint with light to moderate rust with heavier rusting and some minor section losses to the end diaphragms at the piers (see photos 28, 35, 36, 45, 46, 50, 84, 85, 89 and 90).</p>								



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1000	Corrosion	3	63.00	each	0.00	54.00	8.00	1.00
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The end diaphragms typically have peeling paint with moderate to heavy rust and isolated areas of minor sections loss throughout (see photos 28, 35, 36, 45, 46, 50, 84, 85, 89 and 90).

At Pier 1, the Span 2 lateral bracing member in Bay A at the connection with Girder A is being supported by a wire and clamp and has a 5'-0" long area of 100% section loss (see photo 72).

Specific deficiencies at this location are as noted below:

- The lateral bracing connection plate: 100% loss x 16" long x 6" wide.
- The vertical leg of the lateral bracing member: 100% loss x 21" long x up to 2" high.
- The horizontal leg of the lateral bracing member: 100% loss x 3'-0" long x full width.

1900	Distortion	3	1.00	each	0.00	1.00	0.00	0.00
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In Bay B of Span 2, between Diaphragms 5 and 6, the lateral bracing is bowed slightly downwards and the connection plate between bracing members is distorted up to 1/4".

8368	Graffiti	3	15.00	each	15.00	0.00	0.00	0.00
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The end diaphragms at East Abutment #2 have areas of graffiti (see photo 33, 35, 36).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8398	Curb/sidewalks - Con	3	674.00	ft	642.00	31.00	1.00	0.00

There are reinforced concrete safety walks at the north and south sides of the bridge with granite curbs (see photos 2, 3, 6, 10, 12, 16 and 17). There is light vegetation growth between the curbs and the safety walks (see photos 2, 3, 6). The curbs have scattered areas of minor edge chipping, impact scrapes and rust staining throughout (see photos 2, 3, 6, 13, 20 and 21).

1080	Delamination/Spall/Patched Area	3	26.00	ft	0.00	25.00	1.00	0.00
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The safety walks have scattered minor spalls up to 2" deep (see photo 6).

The southeast approach curb has an approximately 1' long section of missing/broken curb (see photo 17).

Near Pier 2 in Span 2, the south curb has a spall measuring 12" long x full height x 2" deep (see photo 10).

4000	Settlement	3	6.00	ft	0.00	6.00	0.00	0.00
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At the west approach, the north and south curbs are settled up to 3" (see photos 2 and 3).

At the east approach, the north curb is settled 1-1/2" (see photo 16).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8428	Pro Screen Barrier	3	130.00	ft	130.00	0.00	0.00	0.00

There are railroad electrification protection barriers along the west half of Span 2 (see photos 20 and 21).

8368	Graffiti	3	100.00	ft	100.00	0.00	0.00	0.00
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The interior faces of the electrification barrier have isolated areas of light graffiti and scattered areas of anti-graffiti paint (see photos 20 and 21).



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Inspector: MATT BROOKS
Inspection Date 03/20/2024

Bridge Condition Poor

Work History From completed work candidates.

Completion Date	Action	Notes
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Work Candidates

Status	Priority	Action	Date Proposed	Notes
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<p>Equipment</p> <ul style="list-style-type: none"> Aerial Lift <input type="checkbox"/> Boat <input type="checkbox"/> Underbridgeinspel <input type="checkbox"/> Scaffolding <input type="checkbox"/> BoesemansChair <input type="checkbox"/> Waders <input type="checkbox"/> Rail Mount Elliot <input checked="" type="checkbox"/> Crash Truck <input type="checkbox"/> Air Monitor <input type="checkbox"/> Ladder <input type="checkbox"/> Bucket Truck <input type="checkbox"/> Rigging <input type="checkbox"/> Floats <input type="checkbox"/> Climbing <input type="checkbox"/> Rail Mount Bucket Truck <input checked="" type="checkbox"/> Light Tower <input checked="" type="checkbox"/> 	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Poison Ivy <input type="checkbox"/></td> <td style="padding: 2px;">Speed Limit 30.00</td> </tr> <tr> <td style="padding: 2px;">Heavy Vegetation <input type="checkbox"/></td> <td style="padding: 2px;">Prep Time 4</td> </tr> <tr> <td style="padding: 2px;">Hurricane Evac Route ? <input checked="" type="checkbox"/></td> <td style="padding: 2px;">Crew Slize 3</td> </tr> <tr> <td style="padding: 2px;">Cones Yes</td> <td style="padding: 2px;">Under Insp Vehicle Time 0</td> </tr> <tr> <td style="padding: 2px;">Traffic Setup Req Yes</td> <td style="padding: 2px;">Traffic Control Time 3.5</td> </tr> <tr> <td style="padding: 2px;">Police Req Yes</td> <td style="padding: 2px;">Mile Post 0.103</td> </tr> <tr> <td style="padding: 2px;">Night Insp Req Yes</td> <td style="padding: 2px;">Crew Days 3.5</td> </tr> <tr> <td style="padding: 2px;">Signs Yes</td> <td style="padding: 2px;">Time Report Time 39</td> </tr> <tr> <td></td> <td style="padding: 2px;">Bucket Truck Time 3</td> </tr> </table>	Poison Ivy <input type="checkbox"/>	Speed Limit 30.00	Heavy Vegetation <input type="checkbox"/>	Prep Time 4	Hurricane Evac Route ? <input checked="" type="checkbox"/>	Crew Slize 3	Cones Yes	Under Insp Vehicle Time 0	Traffic Setup Req Yes	Traffic Control Time 3.5	Police Req Yes	Mile Post 0.103	Night Insp Req Yes	Crew Days 3.5	Signs Yes	Time Report Time 39		Bucket Truck Time 3																												
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<p style="text-align: center;">Site Access Notes</p> <p>Equipment to mount on tracks at Cranston Yard off Elmwood Avenue. Track #3 to inspect Pier 1, Track #6 & #14 to inspect midspan of Span 2, and Track #18 to inspect Pier 2</p>																																															
<table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">Avg Curb Reveal North/East</td> <td style="width: 30%; text-align: right;">8.50</td> </tr> <tr> <td>Avg Curb Reveal South/West</td> <td style="text-align: right;">8.50</td> </tr> <tr> <td>Posted Weight Limit</td> <td></td> </tr> <tr> <td>Posting Sign ?</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Post Signs Legible</td> <td style="text-align: center;">-1</td> </tr> <tr> <td>Post Sign Rec</td> <td style="text-align: center;">-1</td> </tr> <tr> <td>Adv Min Vert Clear Sign</td> <td style="text-align: center;">-1</td> </tr> <tr> <td>Min Ver tClear Signs Leg</td> <td style="text-align: center;">01</td> </tr> <tr> <td>Min Vert Clear Post Vales</td> <td style="text-align: center;">17'-1"</td> </tr> <tr> <td>Min Vert Clear Sign Rec</td> <td style="text-align: center;">01</td> </tr> <tr> <td>Old Rating and Postings</td> <td></td> </tr> <tr> <td>RR Mile Post</td> <td style="text-align: center;">180.71</td> </tr> <tr> <td>US DOT/AAR No.</td> <td style="text-align: center;">537-117U</td> </tr> </table>	Avg Curb Reveal North/East	8.50	Avg Curb Reveal South/West	8.50	Posted Weight Limit		Posting Sign ?	<input type="checkbox"/>	Post Signs Legible	-1	Post Sign Rec	-1	Adv Min Vert Clear Sign	-1	Min Ver tClear Signs Leg	01	Min Vert Clear Post Vales	17'-1"	Min Vert Clear Sign Rec	01	Old Rating and Postings		RR Mile Post	180.71	US DOT/AAR No.	537-117U	<table border="0" style="width: 100%;"> <tr><td>Telephone</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Sewer</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Cable</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Oil</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Fire Alarm</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>OH Lines Present</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Water</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Gas</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Electric</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Fiber Optic</td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>	Telephone	<input type="checkbox"/>	Sewer	<input type="checkbox"/>	Cable	<input type="checkbox"/>	Oil	<input type="checkbox"/>	Fire Alarm	<input type="checkbox"/>	OH Lines Present	<input type="checkbox"/>	Water	<input type="checkbox"/>	Gas	<input type="checkbox"/>	Electric	<input type="checkbox"/>	Fiber Optic	<input type="checkbox"/>
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Bridge Condition **Poor**

5/7/2024

Bat and Bird Observations

Bats:

<u>BATS OBSERVED</u>	<u>BATS VISUAL</u>	<u>BAT DROPPINGS</u>	<u>BAT STAINING</u>	<u>BAT SOUNDS</u>	<u>BAT PHOTOS</u>
No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>BATS NOTES</u>					

Birds

<u>BIRDS OBSERVED</u>	<u>BIRD PHOTOS</u>	<u>BIRDS SPECIES IDENTIFIED</u>
No	<input type="checkbox"/>	<input type="checkbox"/>
<u>BIRD NOTES</u>		