RIDOT Bridge Inspection Report

020001
Washington Bridge South

Inspected By COLLINS
Inspector: SETH LEMOINE
Inspection Date 07/24/2017

Bridge Condition Fair

IDENTIFICATION

Bridge ID:	020001
NBI Number	Washington Bridge South
Structure Name:	Washington Bridge South
Location (9):	1.0 Mi E of JCT I-95 &195
Carries (7):	I-195 EB and WB
Type of Service (42A):	1 Highway
Feature Crossed (6):	SEEKONK RVR & STS
Type of Service (42B):	6 Highway-waterway
Placecode (4):	East Providence
County (3):	Providence
State (1):	44 Rhode Island
Station:	NBI
Region (2):	District 3
Latitude (16):	41.8190048
Longitude (17):	-71.3868191
Owner (22):	01 State Highway Agency
Custodian (21):	01 State Highway Agency

Year Built (27):	1930	Border State: Not Applicable (P)	
Year Recon (106):	2008	Border Number:	
Historical (37):	5 Not eligible for NRHP	% Responsibility:	

INSPECTION

Date of Routine Inspection (90):	7/24/2017
Frequency (91):	24
Next Inspection:	7/24/2019

LOAD RATING AND POSTING

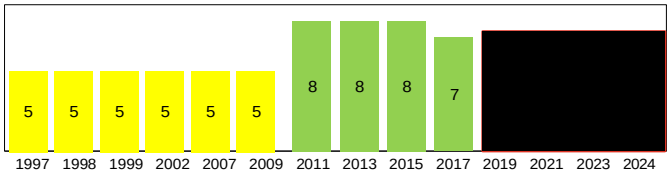
Posting Status (41)	A Open, no restriction
Posting % (70):	5 At/Above Legal Loads
Rating Date:	3/27/2024
Design Load (31):	9 MS22.5(HS25)or greater
Opr Method (63):	8 LRFR (HL93)
Opr Rating (64):	31.70 Tons
Inv Rating (66):	24.50 Tons

Inspection Type	Freq (92)	Last Insp (93)	Next Insp
Element	24	7/24/2017	7/24/2019
Fracture Critical (A)		N 1/1/1901	1/1/1901
Underwater (B)	48	7/24/2017	7/24/2021
Special Insp (C)		N 1/1/1901	1/1/1901

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

DECK GEOMETRY

Deck Geometry (68):	4 Tolerable
Deck Area:	119,461.50
Deck Type (107):	1 Concrete-Cast-in-Place
Wearing Surface (108A):	1 Monolithic Concrete
Membrane (108B):	0 None
Deck Protection (108C):	1 Epoxy Coated Reinforci
O. to O. Width (52):	71.50
Curb / Sidewalk Width L (50A):	0.00
Curb / Sidewalk Width R (50B):	0.00
Median (33):	0 No median

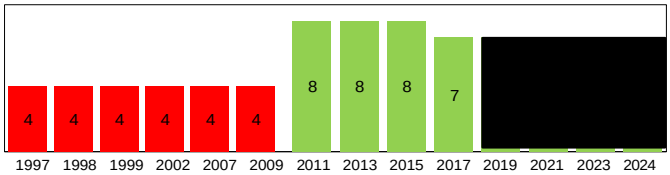


DECK CONDITION

Deck Rating (58):	7 Good
Bridge Rail (36A):	1 Meets Standards
Transition (36B):	1 Meets Standards
Approach Rail (36C):	1 Meets Standards
Approach Rail Ends (36D):	1 Meets Standards

SUPERSTRUCTURE GEOMETRY

# of Main Spans (45):	14
# of Approach Spans (46):	0
Main Material (43 A):	4 Steel Continuous
Main Design (43 B):	02 Stringer/Girder
Max Span Length (48):	160.37
Structure Length (49):	1,670.79
NBIS Length (112):	Long Enough
Temp Structure (103):	Not Applicable (P)
Skew (34):	0
Structure Flared (35):	1 Yes, flared
Parallel Structure (101):	Right of || bridge
Approach Alignment (72):	6 Equal Min Criteria



SUPERSTRUCTURE CONDITION

Superstructure Rating (59):	7 Good
Structure Evaluation (67):	6 Equal Min Criteria

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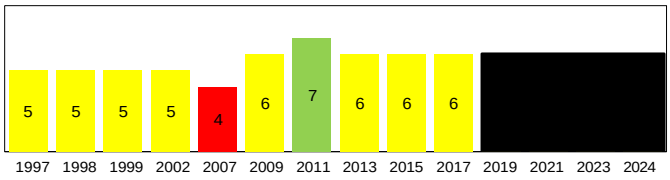
SUBSTRUCTURE GEOMETRY

Navigation Control (38):	Permit Required
Nav Vert Clearance (39):	134.52
Nav Horiz Clearance (40):	321.85
Pier Protection (111):	2 In-Place, Functioning
Lift Bridge Vertical Clearance (116):	
Scour Rating (113):	3 SC - Unstable
Waterway Adequacy (71):	9 Above Desirable



SUBSTRUCTURE CONDITION

Substructure Rating (60):	6 Satisfactory
Channel Rating (61):	6 Bank Slumping

1ST ROUTE UNDER: Gano Street

ROADWAY LOCATION

Pos Prefix (5A):	1st Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	0.00 mi (0.00 km)

ROADWAY CLASSIFICATION

Funct Class (26):	17 Urban Collector
Level Service (5C):	1 Mainline
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	81,000 Cars/Day
Pct Trucks (109):	13.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	26.58	
Min Vert Over (53):	17.00	20.45
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	89.00	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	14.50	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	9 Above Desirable	

2ND ROUTE UNDER: Water Street

ROADWAY LOCATION

Pos Prefix (5A):	2nd Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	0.00 mi (0.00 km)

ROADWAY CLASSIFICATION

Funct Class (26):	19 Urban Local
Level Service (5C):	1 Mainline
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	81,000 Cars/Day
Pct Trucks (109):	13.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	27.79	
Min Vert Over (53):	17.00	20.45
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	27.50	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	14.50	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	9 Above Desirable	

3RD ROUTE UNDER: Waterfront Drive

ROADWAY LOCATION

Pos Prefix (5A):	3rd Route Under
Kind of Hwy (5B):	5 City Street
Route Num (5D):	0
LRS Route (13A/B):	
Milepost (11):	
Suffix (5E):	0 N/A (NBI)
Lanes Under (28B):	2
Detour Length (19):	0.00 mi (0.00 km)

ROADWAY CLASSIFICATION

Funct Class (26):	19 Urban Local
Level Service (5C):	2 Alternate
NHS (104):	0 Not on NHS
Defense Hwy (100):	0 Not a STRAHNET hwy
Toll Facility (20):	3 On free road
ADT (29):	81,000 Cars/Day
Pct Trucks (109):	13.00%
ADT Year (30):	2021

CLEARANCES

Vertical (10):	20.83	
Min Vert Over (53):	17.00	20.45
Vert Ref (54A):	H Hwy beneath struct	
Horizontal (47):	35.50	
Min Lat Left (56):	0.00	
Min Lat Right (55B):	14.50	
Horiz Ref (55A):	H Hwy beneath struct	
Underclearance (69):	9 Above Desirable	

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ROUTE ON STRUCTURE: I-195 EB and WB

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):**	1 Mainline	**Min Vert Over (53):**	17.00	20.45
Route Num (5D):	00195	**NHS (104):**	1 On the NHS	**Vert Ref (54A):**	H Hwy beneath struct	
LRS Route (13A/B):	40068660A/00	**Defense Hwy (100):**	1 On Interstate STRAHNET	**Horizontal (47):**	83.80	
Milepost (11):	0.80 mi (1.29 km)	**Toll Facility (20):**	3 On free road	**Min Lat Left (56):**	0.00	
Suffix (5E):	2 East	**ADT (29):**	120,000 Cars/Day	**Min Lat Right (55B):**	14.50	
Lanes On (28A):	5	**Pct Trucks (109):**	13.00%	**Horiz Ref (55A):**	H Hwy beneath struct	
Detour Length (19):	1.90 mi (3.06 km)	**ADT Year (30):**	2021	**Underclearance (69):**	9 Above Desirable	

BRIDGE NOTES

ORIENTATION: The Bridge runs west to east, with the spans and piers numbered from west to east and girders labeled A through J from north to south in each span. At the Southeast corner of Span 14, there are two (2) additional kicker beams labeled Kicker Beams K and L that support the Exit 1 B-C ramp. The interior diaphragms are numbered from west to east in each span.

EQUIPMENT REQUIRED: 60' Manlift, Light Tower, Barge with 85' Manlift for spans over water, Local Police, State Police, Traffic Control and Crash Truck.

TRAFFIC CONTROL INFORMATION: Need traffic control for work in Span 1 over Gano Street, Span 14 over Waterfront Drive and Water Street and for the topside inspection. Due to the current traffic restrictions associated with the Washington Street Bridge (I-195 WB), all work requiring traffic control was performed at night to reduce the impact to the traveling public.

POLICE DETAIL NEEDED: Need Local Police detail for work in Span 1 over Gano Street and in Span 14 over Waterfront Drive. Need State Police for the topside inspection.

TEMPORARY MEDIAN BARRIER: At the time of this inspection, there was a temporary steel median barrier separating the eastbound and westbound traffic on the bridge. The barrier had no defects noted.

INSPECTION NOTES

Inspection Dates: 06/19/17 – 07/24/17 (Abovewater)
06/8/2017 – 06/12/2017 (Underwater)

Crew Chief / Dive Supervisor: Seth Lemoine, P.E. (Abovewater & Underwater)

Staff Inspectors: James Karalekas Jr., P.E., Robert Snelgrove, P.E., Matthew Liguore, Curtis Cheney, Juan Quintero

Divers: Seth Lemoine, P.E., James Karalekas Jr., P.E., Robert Snelgrove, P.E., Matthew Liguore, Curtis Cheney

Weather: Varied, 55°F - 90°F

Deflection and Vibration – No unusual deflection or vibration was noted.

Underbridge Lights – There are four (4) lights over Waterfront Drive which were on during the inspection and two (2) lights over Water Street which were off during the inspection. The electrical conduit under Beam "I" in Span #14, is missing an attachment bracket.

Light Standards – There are ten (10) lights spaced evenly along the north side and south side of the bridge, respectively. The lights were not on at the time of the inspection and it is unknown if they function.

Vertical Clearances – The minimum vertical clearances are as follows:

In Span #1 over Gano Street the minimum vertical clearance was measured at 26'-6" at the roadway centerline under Girder "J". The posted clearance sign on Girder "J" reads 26'-1" (See Photo No. 63).

In Span #14 over Water Street the minimum vertical clearance was measured at 27'-2" at the east roadway shoulder under Girder "J" and the posted clearance sign on Girder "J" reads 27'-2" (See Photo No. 64).

In Span #14 over Waterfront Drive the minimum vertical clearance was measured at 20'-10" at the left (east) curb, left (east) shoulder and the roadway centerline under Girder "J" and the same measurement was taken from the bottom of the underbridge light at the right (west) shoulder adjacent to Girder "I. There are no posted clearance signs for Waterfront Drive under Span #14.

Curb Reveal – The average curb reveal was measured at 3-1/2" along the south side of the bridge. Safe access to the north curb was not available as a result of lane closure restrictions.

Underwater Inspection Notes:
Fender System – There is a timber fender system in place along the east side of Pier #6 and the west side of Pier #7. The timber fender system members exhibit minor splits and checking along with damaged or missing handrails (See Photo Nos. 27 thru 30). The dolphin pile groups at the south (downstream) end of the fenders have recently been replaced and have no significant defects.

Navigational Lighting – The navigational lighting system in place exhibits no significant deficiencies, however the lights were not on at the time of the inspection (See Photo Nos. 27 thru 30).

Channel Debris – There are no obstructions or debris accumulation which would affect the hydraulic opening at the bridge.

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Deck (Rating = 7) – The top of the reinforced concrete deck is bare, with no protective wearing surface. The top of the deck has transverse hairline cracks spaced approximately 2 ' to 3' apart and moderate wear (See Photo Nos. 13). The deck underside is concealed from view with stay in-place steel forms in all bays except Bay "G". The exposed deck in Bay "G" has transverse hairline cracks spaced approximately 3 ' to 6' apart with and without efflorescence (See Photo No. 56).

Superstructure (Rating = 7) – The superstructure consists of weathering steel plate girders continuous over all piers except Piers #4 and #9. There are locations of light laminar rust, bent bottom flanges, isolated locations of missing splice plate bolts and a bent splice plate (See Photo Nos. 15, 21, 27, 31, 32, 40, 45, 52 and 59).

For additional notes, see file entitled "020001_Additional_Brm_Inspection_Notes".

ELEMENT CONDITION SUMMARY

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**	**119,494.0**	**0%**	**1.00**	**100%**	**119,493.00**	**0%**	**0.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	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	100%	1.00	0%	0.00	0%	0.00	0%	0.00
1190/3	Abrasion(PSC/RC)	119,491.00	0%	0.00	100%	119,491.00	0%	0.00	0%	0.00
8382/3	Stay-in-Place Form	97,500.00	96%	93,375.00	4%	4,125.00	0%	0.00	0%	0.00
107/3	**Steel Opn Girder/Beam**	**16,674.00**	**100%**	**16,644.00**	**0%**	**24.00**	**0%**	**6.00**	**0%**	**0.00**
515/3	Steel Protective Coating	251,200.00	98%	246,200.00	2%	5,000.00	0%	0.00	0%	0.00
1000/3	Corrosion	15.00	0%	0.00	100%	15.00	0%	0.00	0%	0.00
1020/3	Connection	12.00	0%	0.00	50%	6.00	50%	6.00	0%	0.00
7000/3	Damage	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
205/3	**Re Conc Column**	**39.00**	**100%**	**39.00**	**0%**	**0.00**	**0%**	**0.00**	**0%**	**0.00**
8368/3	Graffiti	1,190.00	100%	1,190.00	0%	0.00	0%	0.00	0%	0.00
210/3	**Re Conc Pier Wall**	**587.00**	**50%**	**293.00**	**50%**	**292.00**	**0%**	**2.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	3.00	0%	0.00	100%	3.00	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)	472.00	62%	293.00	38%	179.00	0%	0.00	0%	0.00
1190/3	Abrasion(PSC/RC)	10.00	0%	0.00	80%	8.00	20%	2.00	0%	0.00
4000/3	Settlement	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
6000/3	Scour	100.00	0%	0.00	100%	100.00	0%	0.00	0%	0.00
8368/3	Graffiti	3,240.00	0%	0.00	100%	3,240.00	0%	0.00	0%	0.00
215/3	**Re Conc Abutment**	**171.00**	**98%**	**168.00**	**2%**	**3.00**	**0%**	**0.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	2.00	0%	0.00	100%	2.00	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)	168.00	100%	168.00	0%	0.00	0%	0.00	0%	0.00
220/3	**Re Conc Pile Cap/Ftg**	**218.00**	**99%**	**216.00**	**1%**	**2.00**	**0%**	**0.00**	**0%**	**0.00**
1190/3	Abrasion(PSC/RC)	218.00	99%	216.00	1%	2.00	0%	0.00	0%	0.00
225/3	**Steel Pile**	**6.00**	**100%**	**6.00**	**0%**	**0.00**	**0%**	**0.00**	**0%**	**0.00**
1000/3	Corrosion	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
234/3	**Re Conc Pier Cap**	**920.00**	**99%**	**909.00**	**1%**	**11.00**	**0%**	**0.00**	**0%**	**0.00**
1080/3	Delamination/Spall/Patched Area	2.00	0%	0.00	100%	2.00	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)	917.00	99%	909.00	1%	8.00	0%	0.00	0%	0.00
300/3	**Strip Seal Exp Joint**	**68.00**	**0%**	**0.00**	**34%**	**23.00**	**66%**	**45.00**	**0%**	**0.00**
2340/3	Seal Cracking	45.00	0%	0.00	0%	0.00	100%	45.00	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
2350/3	Debris Impaction	23.00	0%	0.00	100%	23.00	0%	0.00	0%	0.00
301/3	Pourable Joint Seal	161.00	100%	161.00	0%	0.00	0%	0.00	0%	0.00
303/3	Assem Jnt With Seal	220.00	0%	0.00	81%	178.00	0%	0.00	19%	42.00
2340/3	Seal Cracking	42.00	0%	0.00	0%	0.00	0%	0.00	100%	42.00
2350/3	Debris Impaction	178.00	0%	0.00	100%	178.00	0%	0.00	0%	0.00
321/3	Re Conc Approach Slab	2,212.00	26%	582.00	74%	1,630.00	0%	0.00	0%	0.00
510/3	Wearing Surfaces	782.00	62%	482.00	38%	300.00	0%	0.00	0%	0.00
3220/3	*Crack (Wearing Surface)*	*170.00*	0%	0.00	100%	170.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	100.00	100%	100.00	0%	0.00	0%	0.00	0%	0.00
1190/3	Abrasion(PSC/RC)	1,160.00	0%	0.00	100%	1,160.00	0%	0.00	0%	0.00
331/3	Re Conc Bridge Railing	3,318.00	100%	3,317.00	0%	0.00	0%	1.00	0%	0.00
1130/3	Cracking (RC and Other)	3,309.00	100%	3,309.00	0%	0.00	0%	0.00	0%	0.00
7000/3	Damage	9.00	89%	8.00	0%	0.00	11%	1.00	0%	0.00
8060/3	Scupper	26.00	0%	0.00	85%	22.00	15%	4.00	0%	0.00
8213/3	R/C Return Wall	70.00	100%	70.00	0%	0.00	0%	0.00	0%	0.00
1130/3	Cracking (RC and Other)	70.00	100%	70.00	0%	0.00	0%	0.00	0%	0.00
8218/3	Backwall, All Types	171.00	98%	168.00	1%	1.00	1%	2.00	0%	0.00
1080/3	Delamination/Spall/Patched Area	2.00	0%	0.00	0%	0.00	100%	2.00	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)	168.00	100%	168.00	0%	0.00	0%	0.00	0%	0.00
8316/3	Isolation Bearing	172.00	36%	61.00	58%	99.00	7%	12.00	0%	0.00
1000/3	Corrosion	4.00	0%	0.00	100%	4.00	0%	0.00	0%	0.00
1020/3	Connection	57.00	0%	0.00	79%	45.00	21%	12.00	0%	0.00
2220/3	Alignment	8.00	0%	0.00	100%	8.00	0%	0.00	0%	0.00
2230/3	Bulging, Splitting or Tearing	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00
2240/3	Loss of Bearing Area	40.00	0%	0.00	100%	40.00	0%	0.00	0%	0.00
8370/3	Steel Diaphragms	805.00	100%	804.00	0%	1.00	0%	0.00	0%	0.00
515/3	Steel Protective Coating	24,200.00	100%	24,200.00	0%	0.00	0%	0.00	0%	0.00
1020/3	Connection	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00

ELEMENT NOTES

STRUCTURE UNIT: **0**

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
12	Re Concrete Deck	3	119,494.00	sq.ft	1.00	119,493.00	0.00	0.00

The top of the grooved reinforced concrete deck is bare, with no protective wearing surface (See Photo Nos. 4 thru 8 and 11 thru 19). The underside of the deck is covered by stay-in-place forms except for in Bay "G" and at the overhangs (See Photo Nos. 9 and 10).

1080	Delamination/Spall/Patched Are3		1.00	sq.ft	0.00	1.00	0.00	0.00

On the top of deck, there are areas of minor scaling throughout the four (4) main travel lanes in Span #14 (See Photo No. 19).

Along the middle of Bay "G", with evenly spaced anchor bolt holes adjacent to Girder "G" (See Photo Nos. 23 and 30). Some of these holes have been filled while others have not (See Photo No. 30). A few of the holes that have not been filled exhibit signs of leakage.

In Span #13, the exposed deck underside in Bay "G" exhibits an area of scaling up to 36" long x 20" wide x 1/2" deep near the first interior cross frame from Pier #12 (See Photo No. 56).

1120	Efflorescence/Rust Staining	3	1.00	sq.ft	0.00	1.00	0.00	0.00

The exposed deck underside in Bay "G" exhibits hairline transverse cracks with efflorescence at random locations (See Photo No. 56).

1130	Cracking (RC and Other)	3	1.00	sq.ft	1.00	0.00	0.00	0.00

On the top of the deck, there are full width hairline cracks spaced every 2' to 3' in all spans (See Photo No. 13).

The exposed deck underside in Bay "G" exhibits hairline transverse cracks spaced 3' to 6' apart (See Photo Nos. 30 and 56). The north and south deck overhangs exhibit a few random hairline cracks spaced 3' to 6' apart.

1190	Abrasion(PSC/RC)	3	119,491.00	sq.ft	0.00	119,491.00	0.00	0.00

The exposed top of the deck exhibits moderate wear, minor chips in the concrete and isolated scrapes (See Photo Nos. 6, 13, and 19).

8382	Stay-in-Place Form	3	97,500.00	sq.ft	93,375.00	4,125.00	0.00	0.00

In Bays "A" and "I", the stay-in-place forms exhibit scattered areas of rust, mainly at the interfaces between adjacent form sections. Areas of rust cover up to 5% of the bay area in several spans (See Photo Nos. 24 and 52).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Opn Girder/Beam	3	16,674.00	ft	16,644.00	24.00	6.00	0.00

The superstructure consists of ten (10) weathering steel plate girders, continuous over all piers except Piers #4 and #9 (See Photo No. 9). Span #14 is splayed at Abutment #2, with two rolled section kicker beams supporting the flared section of deck along the south side of the bridge (See Photo No. 10). The girder ends are painted below the deck joints at the abutments and at Piers #4 and #9 (See Photo No. 31). The following locations present minor defects as follows: In Spans #4 and #5, Girders "A" and "J" do not exhibit the positive camber as adjacent girders and the same girders in other spans. In Span #11, Girders "A", "B" and "C" do not exhibit the positive camber as adjacent girders and the same girders in other spans, as previously noted in the 2015 Routine Inspection. In Span #1, Girder "J" has a slightly bent bottom flange, approximately 11' from Pier #1 measuring 5" long x 1/8" high.

515	Steel Protective Coating	3	251,200.00	sq.ft	246,200.00	5,000.00	0.00	0.00

The weathering steel girders exhibit a normal surface patina with some scattered areas of yellow to orange rust, most common along the top flanges (See Photos Nos. 3, 9, 10, 27, 31 and 32).

The girder ends are painted 8' to 11' long below the deck joints at the abutments and at Piers #4 and #9. The painted girder ends have isolated locations of chipped, peeling and bubbling paint (See Photo No. 31).

In Span #1 at Girder "A", the bottom flange near Abutment #1, has an area of peeling/bubbling paint 18" long x 9" wide (top and underside of flange) extending 4" high on the north web.

In Span #9 at Girder "H", the bottom flange underside at Pier #9 has an area of peeling/bubbling paint up to 9' long x full width.

In Span #10 at Pier #9 in Bay "G" the backside of the bearing stiffeners for Girders "G" and "H" are not painted (See Photo No. 48).

In Span #12 at Girder "I", approximately 5% of the bottom flange underside face exhibits yellow to orange rust.

1000	Corrosion	3	15.00	ft	0.00	15.00	0.00	0.00

Girder "A" in all spans has scattered light areas of laminar rust on the north side and underside of the bottom flange (See Photo No. 32).

In Span #3 at Girder "H" there is an area of laminar rust on the underside of the bottom flange 4' long x full width that continues on the north web 14' long x 3" high located between the first and second cross frame from Pier #3 (See Photo No. 15).

In Span #11 at Girder "A", there is an area of light rust and laminar rust along the interface of the girder top flange and the stay-in-place form between the first and second interior cross frames from Pier #10 (See Photo No. 52).

In Span #14 at Girder "A", there is an area of laminar rust 62" long x 1-1/2" high along the bottom of the north web at the east field splice plate.

1020	Connection	3	12.00	ft	0.00	6.00	6.00	0.00

In Span #4, at Girder "F" bolted field splice, a bolt head on the bottom flange is not flush with the splice plate (See Photo No. 27).

In Span #7 at Girder "G", there are three (3) missing bolts in the bottom flange at the west field splice plate (See Photo No. 40). Also, there is one missing bolt in the east field splice plate at the bottom of the flange.

In Span #8 at Girder "G", the bottom flange field splice plate is bent on the top of the flange up to 1/8" high.

In Span #9 at the Girder "A", there is a loose, undersized bolt in the bottom flange field splice (See Photo No. 45).

In Span #14 at Girder "B", there is a nut that is backed off at the north top flange field splice plate.

7000	Damage	3	2.00	ft	0.00	2.00	0.00	0.00

In Span #2 at Girder "I", the bottom flange is bent upward 3/4" high over a 2' length near the second interior cross frame from Pier #2 and the bottom flange at Girder "J" is slightly bent upward in the same location (See Photo No. 21).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
205	Re Conc Column	3	39.00	each	39.00	0.00	0.00	0.00

There are three (3) reinforced concrete columns at each pier. Column "A" (north column) is supported on an independent drilled shaft. Columns "B" and "C" (center and south columns) are supported by a reinforced concrete pier wall that was part of the original structure (See Photo Nos. 36, 42, 50, 51 and 55). The columns exhibit no deficiencies.

8368	Graffiti	3	1,190.00	each	1,190.00	0.00	0.00	0.00

The columns have scattered areas of graffiti, particularly at the piers on land (See Photo Nos. 42, 50 and 51).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
210	Re Conc Pier Wall	3	587.00	ft	293.00	292.00	2.00	0.00

The reinforced concrete pier walls are part of the original structure and support Columns "B" and "C" (center and south columns) (See Photo Nos. 36, 42, 50, 51 and 55). The piers have a stone masonry facade from below the water surface to the top of the pier wall. There are scattered areas of missing mortar between masonry stones and random cracked stones (See Photo No. 36). 2017 Underwater Inspection: The reinforced concrete pier walls are part of the original I-195 Eastbound structure and support Columns "B" and "C" (center and south columns) and support the arches (Arches "E" and "F") along with the Pedestrian / Bike Path Bridge (Br. No. 020021). For the Underwater Inspection, the Pier Wall for Bridge No. 020001 and Bridge No. 020021 was inspected and reported as a single structure. Piers #4 through #9 were included in the underwater inspection from the top of the stone masonry facade (bottom of the pier cope) to the channel bottom. The stone masonry has scattered areas of missing mortar, up to 15% with penetrations 3" to 6" deep between the stones, cracked stones and missing stones (See UW Photo Nos. 3 thru 21). The piers also have intermittent areas of footing / pile cap exposure with minor abrasion of the concrete.

1080	Delamination/Spall/Patched Are	3	3.00	ft	0.00	3.00	0.00	0.00

At Pier #10, there is a spall 1' high x 1' wide x 2" deep on top of the southwest corner of the pier wall.

At Pier #11, the previously noted area of severe scaling 31" high x 23" wide x 4" deep on the west face has been repaired with a concrete patch.

At Pier #12, the previously noted spall 39" high x 2' wide x up to 5" deep at the north end of the pier wall east face has been repaired with a concrete patch (See Photo No. 55).

2017 Underwater Inspection:
At Pier #6 there are intermittent voids up to 3' long x 6" high x 6" deep along the interface of the stone facade and the concrete pier wall.

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00

At Pier #13 there are two (2) cracks full height x up to 1/16" wide with one on the west face and the other on the east face that exhibit moderate efflorescence.

1130	Cracking (RC and Other)	3	472.00	ft	293.00	179.00	0.00	0.00

The pier walls typically have scattered vertical hairline cracks (See Photo Nos. 36 and 51). Wider and more extensive cracking is present as follows:

At Pier #9, south of Column “C”, there is a transverse crack full-width x 1/16” wide across the top face and a crack full height x up to 1/8” wide on the west face south of Column #3. There is also an area of hairline map cracking 12’ long x 6’ wide on the top face of pier wall between Columns “B” and “C”.

At Pier #10, south of Column “C”, there are three (3) transverse cracks full-width x up to 1/8” wide across the top of the pier wall, and extend down the vertical faces of the wall. There is also a vertical crack 3’ high x 1/8” wide at the northwest corner.

At Pier #12, there is a crack full height x 1/16” wide on both the east and west face of the pier wall between Columns “B” and “C” (See Photo No. 55). There is also a vertical crack full height x up to 1/2” wide on the east face, south of Column “C” that has been repaired.

1190	Abrasion(PSC/RC)	3	10.00	ft	0.00	8.00	2.00	0.00

2017 Underwater Inspection:
The reinforced concrete pier walls, exposed below the stone facade have areas of abrasion as follows:

At Pier #5 there is a band of abrasion 2’-6” high x 3/4” deep across the north nose and 1/2" deep abrasion along mid-length of the pier wall below the stone facade.

At Pier #7 there are isolated areas of abrasion 2’ long x 1’ high x 2” deep on the south face and there is a band of abrasion 5’ high x 1” deep near the channel bottom on the north face of the pier wall. There is also an area of abrasion 12” diameter x 5” deep near the channel bottom at southwest corner of the pier wall (See Photo Nos. 12 thru 14).

4000	Settlement	3	1.00	ft	0.00	1.00	0.00	0.00

Settlement gauges previously installed at Pier #12 have either been removed or covered/painted over. As a result, previously noted minor rotation of the pier wall could not be verified from the 2013 Routine Inspection Report. There are some medium to wide vertical cracks in the pier walls of Piers #9, #10 and #12, however no signs of settlement were observed (See Photo No. 55).

2017 Underwater Inspection Notes:
At Pier #7, on both the west and east faces of the pier, there are vertical cracks open to 1/4" wide that extend from the top of the stone masonry facade down to the channel bottom near the midpoint of the pier wall that may indicate slight settlement of the pier, as previously noted in the 2013 Underwater Inspection Report (See UW Photo Nos. 10, 11, 15 and 16).

6000	Scour	3	100.00	ft	0.00	100.00	0.00	0.00

2017 Underwater Inspection:
Since the 2013 Underwater Inspection, there is evidence of scour at the piers up to 9.9’ high (Pier #6), however the exposure of the steps / pile caps up to 3' vertically x up to the full-length of the piers at Piers #4, #5 and #8 has remained relatively unchanged.

8368	Graffiti	3	3,240.00	ft	0.00	3,240.00	0.00	0.00

The pier walls on land exhibit areas of graffiti (See Photo Nos. 42, 50 and 51).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
215	Re Conc Abutment	3	171.00	ft	168.00	3.00	0.00	0.00

Abutment #1 is continuous from Abutment #1 for adjacent Bridge 070001 to the north and Abutment #2 is continuous with the remaining original section of the abutment for Bridge No. 020021 to the south. Both abutments exhibit random hollow areas, minor spalls, and hairline cracks with and without efflorescence (See Photos 20 and 61). At Abutment #1, the previously noted areas of graffiti have been painted over.

1080	Delamination/Spall/Patched Are	3	2.00	ft	0.00	2.00	0.00	0.00

At Abutment #2, on the north face, there is a full height x 1' wide hollow area with perimeter cracking and adjacent 3' high x 12" wide x up to 8" deep spall located at near the top of the abutment (See Photo No. 61).

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00

At Abutment #1, there is a hairline crack 20' long with efflorescence, located near the base of the abutment under Bays "H" and "I" (See Photo No. 20).

At Abutment #2, there are random hairline cracks with efflorescence, some which have been repaired (See Photo No. 61).

1130	Cracking (RC and Other)	3	168.00	ft	168.00	0.00	0.00	0.00

At Abutment #1, there are scattered vertical and diagonal hairline cracks, most of which have been sealed (See Photo No. 20). Random areas of hairline map cracking are present along the top 10' of the abutment face.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
220	Re Conc Pile Cap/Ftg	3	218.00	ft	216.00	2.00	0.00	0.00

At Pier #10, there is some erosion at the northwest corner of wall, exposing a 22' long x 42' high portion of the pile cap. 2017 Underwater Inspection: The pier walls are founded on reinforced concrete pile caps with unknown type piles. The sloped concrete step / pile cap steps out 18" to 2' from the pier face then slopes downward at a 45° angle.

1190	Abrasion(PSC/RC)	3	218.00	ft	216.00	2.00	0.00	0.00

2017 Underwater Inspection:
The pile caps exhibit abrasion up to 1/2" deep on the exposed surfaces.

At Pier #8 the sloped concrete step / pile cap has an area of abrasion 18" long x 6" high x 2" deep on the east face of the pier, located 5' from the southeast corner.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
225	Steel Pile	3	6.00	each	6.00	0.00	0.00	0.00

2017 Underwater Inspection: This element shall be used to rate the condition of the steel encased reinforced concrete caisson piles at the north (upstream) end of the piers. Over the steel casing at the caisson piles, there is a fiberglass jacket in place that extends 13'-6" down from the underside of the concrete cap section, which has no significant deficiencies (See UW Photo Nos. 3, 5 thru 10, 15, 17, 18 and 20).

1000	Corrosion	3	1.00	each	1.00	0.00	0.00	0.00

2017 Underwater Inspection Notes:
At Piers #4 through #9, the steel casing at the caisson piles exhibits minor corrosion below the fiberglass jackets.

At Pier #5, the exposed steel casing exhibits a 1' high band of laminar rust with negligible section loss along the channel bottom.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
234	Re Conc Pier Cap	3	920.00	ft	909.00	11.00	0.00	0.00

There are reinforced concrete pier caps at each pier (See Photo Nos. 26, 36, 42, 44, 50, 51 and 55). The pier caps have minor spalls and randomly spaced hairline cracks. There are also areas of isolated minor debris on the seats and the steel template plates for bearings are left on top of the seats from construction.

1080	Delamination/Spall/Patched Are	3	2.00	ft	0.00	2.00	0.00	0.00

At Pier #1, the west face has a chip 6” long x 3” high x 1/2” deep at the bottom edge between Columns “A” and “B”.

At Pier #13, the east face of has a spall 6” diameter x 3/4” deep along the bottom edge between Columns “A” and “B”.

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00

The pier caps have some scattered vertical and diagonal hairline cracks with light efflorescence (See Photo Nos. 26 and 44).

1130	Cracking (RC and Other)	3	917.00	ft	909.00	8.00	0.00	0.00

The pier caps have scattered hairline vertical and diagonal cracks, up to full-height (See Photo Nos. 26 and 44). Pier #6 and Pier #8 have a few crescent shaped cracks present at the caps.

Pier #3 has two (2) vertical cracks in the west face of the pier cap beneath Girders “E” and “F” that extend onto the underside of cap (See Photo No. 26). Below Girder “E” the vertical crack measures 6’ high x 0.010” wide and continues across the full width of the cap underside. Below Girder “F” the vertical crack measures 6’ high x 0.005” wide and continues 12” onto the underside of cap.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
300	Strip Seal Exp Joint	3	68.00	ft	0.00	23.00	45.00	0.00

There is a strip seal expansion joint at Abutment #1 (See Photo No. 12). The seal is depressed downward slightly in a few locations up to 3’ long with debris impaction and cracking of the seal.

2340	Seal Cracking	3	45.00	ft	0.00	0.00	45.00	0.00

At the Abutment #1 joint, there is a transverse crack 45’ long x up to 1” wide (See Photo No. 12).

2350	Debris Impaction	3	23.00	ft	0.00	23.00	0.00	0.00

There is light to moderate dirt and debris in the joint (See Photo No. 12).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
301	Pourable Joint Seal	3	161.00	ft	161.00	0.00	0.00	0.00

There is pourable joint sealant at the approach slab joints at both ends of the bridge (See Photo No. 12). The joint sealant exhibits no defects.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
303	Assem Jnt With Seal	3	220.00	ft	0.00	178.00	0.00	42.00

There are modular expansion joints at Piers #4 and #9 and at Abutment #2 that have locations of rips and debris impaction (See Photo Nos. 16 and 17).

2340	Seal Cracking	3	42.00	ft	0.00	0.00	0.00	42.00

At the Pier #4 joint, in the low speed shoulder, there are few areas where the neoprene seal is ripped and torn along approximately half the length of the joint (See Photo No. 16).

At Abutment #2, the neoprene seal is torn up to 5' long in the low speed lane (See Photo No. 19).

2350	Debris Impaction	3	178.00	ft	0.00	178.00	0.00	0.00

The modular joints typically exhibit light to moderate dirt and debris impaction, with heavier impaction observed in the low speed shoulder.

The joint at Piers #4 and #9 have moderate debris in the joint up to full length (See Photo No. 16 and 17).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
321	Re Conc Approach Slab	3	2,212.00	sq.ft	582.00	1,630.00	0.00	0.00

There are reinforced concrete approach slabs at either end of the bridge. The west approach slab is paved over with a bituminous wearing surface and is therefore not visible (See Photo Nos. 4 and 5). The east approach slab is bare, with no protective wearing surface and exhibits minor defects (See Photo Nos. 7 and 8).

510	Wearing Surfaces	3	782.00	sq.ft	482.00	300.00	0.00	0.00

The west approach slab is paved over with a bituminous wearing surface that exhibits cracking and wheel path rutting up to 1/2" deep (See Photo No. 12).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
3220	*Crack (Wearing Surfac*	*3*	*170.00*	*sq.ft*	*0.00*	*170.00*	*0.00*	*0.00*

The bituminous wearing surface at the west approach slab has longitudinal cracks, both sealed and unsealed, full length x 1/2" wide along the paving seam in the low speed lane (See Photo No. 12).

1130	Cracking (RC and Other)	3	100.00	sq.ft	100.00	0.00	0.00	0.00

The top surface of the east approach slab has scattered longitudinal cracks in the off ramp lane (See Photo No. 19).

1190	Abrasion(PSC/RC)	3	1,160.00	sq.ft	0.00	1,160.00	0.00	0.00

The east approach slab exhibits areas of minor to moderate wear, as well as a few minor scrapes and gouges (See Photo No. 19).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
331	Re Conc Bridge Railing	3	3,318.00	ft	3,317.00	0.00	1.00	0.00

There are reinforced concrete bridge railings along both sides of the bridge (See Photo Nos. 3 thru 8 and 12 thru 19). The bridge railings/safety barriers extend beyond the approaches. The railings exhibit scattered vertical cracks, a few isolated scrapes, and minor gouges (See Photo Nos. 12 and 15).

1130	Cracking (RC and Other)	3	3,309.00	ft	3,309.00	0.00	0.00	0.00

The concrete railings have scattered full height hairline cracks spaced 2' to 3' apart on the bridge (See Photo No. 15).

7000	Damage	3	9.00	ft	8.00	0.00	1.00	0.00

The northwest approach rail has impact damage approximately 9' long x 3' high (See Photo No. 11).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8060	Scupper	3	26.00	each	0.00	22.00	4.00	0.00

There is a scupper along both bridge curbs at each pier and both abutments with 8" diameter PVC downspouts directing the drainage below the superstructure. Scupper Grates – The grates along the south curb are partially clogged with dirt at Abutment #1 and Piers #2, #8, #9, #10, #11 and #12 and 100% clogged at Abutment #2 and Piers #5, #6 and #7 (See Photo Nos. 14 and 18). In addition, grates along the north curb make a banging noise when vehicles pass over them. Scupper Downspouts – The downspouts are clogged at Abutment #1 south side, Pier #1 north side, Pier #2 south side, and Pier #5 south side (See Photo Nos. 22 and 35). In addition, the Pier #1 downspout outlet has a buildup of debris causing erosion adjacent to the pier wall (See Photo No. 61).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8213	R/C Return Wall	3	70.00	ft	70.00	0.00	0.00	0.00

There is a reinforced concrete return wall at the northeast corner of the bridge. The Northeast Return Wall has an architectural finish and displays hairline cracks with light to moderate vegetation growth in front of the wall.

1130	Cracking (RC and Other)	3	70.00	ft	70.00	0.00	0.00	0.00

The Northeast Return Wall has vertical hairline cracks extending from the weep holes up to 10' high.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8218	Backwall, All Types	3	171.00	ft	168.00	1.00	2.00	0.00

There are reinforced concrete backwalls at both abutments. The backwalls exhibit spalls, cracks with and without efflorescence.

1080	Delamination/Spall/Patched Are	3	2.00	ft	0.00	0.00	2.00	0.00

At Abutment #2, there is a spall 7" high x 24" wide x up to 12" deep at the top of backwall, behind Girder "A" (See Photo No. 61).

1120	Efflorescence/Rust Staining	3	1.00	ft	0.00	1.00	0.00	0.00

The backwalls have random hairline vertical cracks up to full height, with efflorescence (See Photo No. 62).

1130	Cracking (RC and Other)	3	168.00	ft	168.00	0.00	0.00	0.00

The backwalls have random hairline cracks up to full height (See Photo No. 62).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8316	Isolation Bearing	3	172.00	each	61.00	99.00	12.00	0.00

There are isolation bearings at the piers and both abutments. Several of the bearings have light to moderate rust (See Photo Nos. 25, 38, 39, 49, 53 and 60) and concrete debris/over-pour from construction at a few bearing locations (See Photo No. 37).

1000	Corrosion	3	4.00	each	0.00	4.00	0.00	0.00

At Pier #3, Girders “E” and “G” bearings exhibit areas of light to moderate rust (See Photo No. 25).

At Pier #4, Girder “J” bearing in Span #4 exhibits moderate rust on the masonry plate (See Photo No. 31). Light rust was observed on the Girder “H” bearing.

1020	Connection	3	57.00	each	0.00	45.00	12.00	0.00

The bearing connection hardware consists of anchor rods, nuts, bolts and washers. Approximately 50% of all connections are either loose, tilted, backed off, or missing. Generally, bolts and nuts are backed off from 1/16” up to 1-1/2” (See Photo Nos. 29, 41, 43, 49, 53 and 60).

2220	Alignment	3	8.00	each	0.00	8.00	0.00	0.00

At Pier #4, Span #5, Girders “B” through “I” centerline is offset approximately 1” south of the bearing pad centerline (See Photo No. 34).

At Pier #8, Girders “G” and “H” centerlines of are offset approximately 1-1/2” south of the bearing pad centerline. Girder “B”, centerline is offset 2-1/4” to the south of the centerline of the bearing. Girders “C”, “D” and “E” centerlines are also offset up to 3” to the south of the bearing pad centerlines (See Photo No. 43).

At Pier #9 in Span #9, all girder centerlines are offset up to 1” to the south of the bearing pad centerlines.

At Abutment #2, Girders “B”, “D” and “G” through “L” centerlines are offset 2” south of the bearing pad centerline. In addition, some girder bottom flanges are not seated flush with the sole plates. These deficiencies are as follows:

At Pier #2, Girder “J” bearing in Span #2, exhibits a 1/16” gap between the bottom flange and sole plate at the southwest corner and tapers flush at the northwest corner of the bearing.

At Pier #5, Girder “H” bearing in Span #6, exhibits a 1/16” gap between the bottom flange and sole plate on the east face of the bearing (See Photo No. 38).

At Pier #9, Girder “A” bearing in Span #10, exhibits a 1/16” gap between the bottom flange and the sole plate.

At Pier #12, Girder “J” bearing in Span #13, exhibits a 1/16” gap between the bottom flange and the sole plate at the southeast corner and tapers flush at the northeast corner of the bearing.

2230	Bulging, Splitting or Tearing	3	2.00	each	0.00	2.00	0.00	0.00

At Pier #4, Girder “E” bearing in Span #4, the bearing material is compressed up to 1/4” on the south side. (Photo No. 28)

At Pier #8, Girder “A” bearing is compressed up to 1/4” on the south side.

2240	Loss of Bearing Area	3	40.00	each	0.00	40.00	0.00	0.00

Several of the bearings exhibit gaps between the masonry plate and the top surface of the concrete pedestal along the edges of the plate. The gaps between the masonry plate and the concrete bearing pedestal are up to 1/4” high at several locations and up to 5/8” high in a few locations. The gaps are the result of the top surface of the concrete pedestal having an uneven finish at these locations (See Photo Nos. 39, 43, 49, 53 and 58).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8370	Steel Diaphragms	3	805.00	each	804.00	1.00	0.00	0.00

The interior cross frames and end diaphragms have scattered areas of yellow to orange rust with scattered locations of concrete debris / over-pour from construction and isolated locations of connection deficiencies. (See Photo Nos. 9, 10, 33 and 37).

515	Steel Protective Coating	3	24,200.00	sq.ft	24,200.00	0.00	0.00	0.00

The cross frames and diaphragms are protected by a weathering steel patina. The weathering steel diaphragms and cross frames exhibit a normal surface patina with some scattered areas of yellow to orange rust (See Photo Nos. 9, 10, 33 and 37).

The end diaphragms below the deck joints at the abutments and at Piers #4 and #9 are painted. However, the end diaphragm at Pier #9 in Span #10 is not painted on the west face. (See Photo No. 48).

1020	Connection	3	1.00	each	0.00	1.00	0.00	0.00

Bay “G” interior cross frames in several spans have plate washers overlapping adjacent washers and are slightly bent (See Photo No. 46).

At Pier #9 in Span #10, the bolts at the end diaphragm connections to Girder “G” and “H” in Bay “G” are loose or not fully engaged (See Photo No. 48). There is also a slight gap between the bearing stiffener plate and the end diaphragm at both connections.

Work History

From completed work candidates.

Agency

Completion Date	Action	Notes
09/19/2023		Generated by user "william.lucas@dot.ri.gov" on 9/20/2023. See pictuers in Mutimedia section:
09/20/2023		Generated by user "william.lucas@dot.ri.gov" on 9/20/2023. scuppers and drains cleaned, also Joints glands cleaned.

Bridge Maintenance

Completion Date	Action	Notes
02/28/2024		(Per John Preiss and Chet-Inspect all Drains and Clean Drains If Needed.) (Entered by William lucas Bridge Maintenance)-Job completed 2-2824)
06/18/2024		(Entered by William lucas Bridge Maintenance) Deck washed 6/1 8/24
06/18/2024		(Generated by user "william.lucas@dot.ri.gov" on 5/30/2024} Bridge Maintenance-Replace Broken Scupper Grates on 195 Eastbound-Clean And Wash Drains. completed 5-29-24 Replaced 3 Broken Scupper Grates on 195 Eastbound, Swept and Cleaned Drains. 5/29/24- Grates will be monitored every 2 to 4 weeks for damage or loose grates. At this time we are in the process of making temporary steel grates. 6/12/24-Inspected all scupper grates on 195 Eastbound- All loose bolts and nuts found were re-tighten. 6/18/24-Inspected all scupper grates on 195 Westbound- All loose bolts and nuts found were re-tighten and re placed stainless steel bolts and nuts. Hours Rate TypeTitle DateEmployee / CrewEmployee Number Actual L
07/26/2024		(Entered by William lucas Bridge Maintenance) Monthly inspection-Repair or replace scupper drains as needed on 195 East and 195 Westbound. Inspection completed on East and Westbound.
09/13/2024		(Entered by William lucas Bridge Maintenance)Monthly check cl aned both all drainage, and Joint glands. 9/13/24.
09/13/2024		(Entered by William lucas Bridge Maintenance) Monthly Miantenance! Cleaned and flushed all drainage, as well as cleaned and flushed all joint glands.
10/23/2024		Entered By William.lucas Bridge Maintenance.

Work Candidates

Status	Priority	Action	Date Proposed	Notes

RIDOT Bridge Inspection Report

020001
Washington Bridge South

Inspected By COLLINS
Inspector: SETH LEMOINE
Inspection Date 07/24/2017

Bridge Condition Fair

Equipment

Aerial Lift
Boat
Underbridgeinspvel
Scaffolding
BoesemansChair
Waders
Rail Mount Elliot
Crash Truck
Air Monitor
Ladder
Bucket Truck
Rigging
Floats
Climbing
Rail Mount Bucket Truck
Light Tower

Poison Ivy	Speed Limit
Heavy Vegetation	Prep Time
Hurricane Evac Route ?	Crew SIize
Cones	Under Insp Vehicle Time
Traffic Setup Req	Traffic Control Time
Police Req	Mile Post
Night Insp Req	Crew Days
Signs	Time Report Time
	Bucket Truck Time

Site Access Notes

Avg Curb Reveal North/East
Avg Curb Reveal South/West
Posted Weight Limit
Posting Sign ?
Post Signs Legible
Post Sign Rec
Adv Min Vert Clear Sign
Min Ver tClear Signs Leg
Min Vert Clear Post Vales
Min Vert Clear Sign Rec
Old Rating and Postings
RR Mile Post
US DOT/AAR No.

Telephone
Sewer
Cable
Oil
Fire Alarm
OH Lines Present
Water
Gas
Electric
Fiber Optic

10/31/2024

Bat and Bird Observations

Bats:

BATS_OBSERVED BATS_VISUAL BAT_DROPPINGS BAT_STAINING BAT_SOUNDS BAT_PHOTOS

BATS_NOTES

Birds

BIRDS_OBSERVED BIRD_PHOTOS BIRDS_SPECIES_IDENTIFIED

BIRD_NOTES