Rhode Island Department of Transportation

Bridge Inspection Report

Structure Inventory and Appraisal Sheet (English Units)

Name: **Oxford Street** Agency ID: **065301** Inspec Date: 04/01/2015
Collins Engineers

IDENTIFICATION

Rte.(On/Under)	5A:	Route On Structure	State	1:	44 Rhode Island
Rte. Signing Prefix	5B:	1 Interstate Hwy	Facility Carried	7:	I-95 N&S & RAMP WS
Level of Service	5C:	1 Mainline	Place Code	4:	Providence
Route Number	5D:	00095	SHD District	2:	District 1
Directional Suffix	5E:	0 N/A (NBI)	Feature Intersected	6:	OXFORD ST
Border Bridge Code	98:	Not Applicable (P)	County Code	3:	Providence
Border Bridge Number	99:		Location	9:	0.1 Mi W of Allens Av
Mile Post	11:	35.555 mi	Latitude	16:	41° 48' 13"
Struc Num	8:	000000000006530	Longitude	17:	071° 24' 14"
% Responsibility:		Unknown			

INSPECTION

Inspection Date	90:	4/1/2015	Frequency	91:	24 months	Next Inspection:	4/1/2017
FC Inspection Date	93A:	NA	FC Frequency	92A:		Next FC Inspection:	NA
UW Inspection Date	93B:	NA	UW Frequency	92B:		Next UW Inspection:	NA
SI Date	93C:	NA	SI Frequency	92C:		Next SI:	NA
Element Insp. Date:		4/1/2015	Element Frequency:		24 months	Next Elem. Insp.:	4/1/2017

CONDITION

Deck	58:	N N/A (NBI)	Super	59:	5 Fair	Sub	60: 6 Satisfactory	SD/FO: ND
Culvert	62:	N N/A (NBI)	Channel/Channel Protection	61:	N N/A (NBI)			SUFF RATE: 72.0

LOAD RATING AND POSTING

Inventory Rating Method	65:	3 LRFR Load & Res. Fact	Operating Rating Method	63:	3 LRFR Load & Res. Fact
Inventory Rating	66:	52.9 TONS	Operating Rating	64:	54.0 TONS
Design Load	31:	6 MS18(HS20)+mod			
Posting Status	41:	A Open, no restriction	Posting	70:	5 At/Above Legal Loads

GEOMETRIC DATA

Length Max Span	48:	44.95 ft	Structure Length	49:	48.89 ft
Width Curb to Curb	51:	138.90 ft	Curb/Sdwlk Width L	50A:	0.00 ft
Approach Roadway width (w/ shoulders)	32:	138.90 ft	Curb/Sidewalk Width R	50B:	0.00 ft
			Width Out to Out	52:	147.60 ft
Deck Area:		7,215.43 sq. ft	Median	33:	1 Open median
Skew	34:	0.00°	Structure Flared	35:	0 No flare
Vertical Clearance	10:	99.99 ft	Horizontal Clearance	47:	51.84 ft

Minimum Vertical Clearance Over Bridge	53:	99.99 ft
Minimum Vertical Underclearance Reference	54A:	H Hwy beneath struct
Minimum Vertical Underclearance	54B:	14.59 ft
Minimum Lateral Underclearance Reference R	55A:	H Hwy beneath struct
Minimum Lateral Underclearance R	55:	8.00 ft
Minimum Lateral Underclearance L	56:	0.00 ft

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AGE AND SERVICE

Year Built	27:	1963	ADT	29:	163,411
Type of Service on	42A:	1 Highway	Year Reconstructed	106:	1982
Type of Service under	42B:	1 Highway	Detour Length	19:	1.4 mi
Lanes on	28A:	9	Truck ADT	109:	3%
Lanes under	28B:	2	Year of ADT	30:	2015

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans	46:	0	Number of Spans Main Unit	45:	1
Wearing Surface	108A:	N N/A (no deck (NBI))	Main Span Material Design	43A:	1 Concrete
Membrane	108B:	N N/A (no deck (NBI))	Main Span Material Design	43B:	05 Multiple Box Be
Deck protection	108C:	N N/A (no deck (NBI))	Deck Type	107:	N N/A (NBI)

APPRAISAL

Bridge Rail	36A:	1 Meets Standards	Approach Rail	36C:	0 Substandard
Transition	36B:	0 Substandard	Approach Rail Ends	36D:	N N/A or not required
Str Evaluation	67:	5 Above Min Tolerable	Deck Geometry	68:	9 Above Desirable Crit
Waterway Adequacy	71:	N Not applicable	Approach Alignment	72:	8 Equal Desirable Crit
Scour Critical	113:	N Not Over Waterway			
Underclearance, Vertical and Horizontal	69:	5 Above Tolerable			

CLASSIFICATION

Defense Highway	100:	1 On Interstate STRAHNE	Parallel Structure	101:	No || bridge exists
Direction of Traffic	102:	2 2-way traffic	Temporary Structure	103:	Not Applicable (P)
Highway System	104:	3 On free road	NBIS Length	112:	Long Enough
Defense Hwy	110:	1 On the NHS	Functional Class	26:	11 Urban Interstate
Toll Facility	20:	1 On Interstate STRAHNE	Historical Significance	37:	4 Hist sign not determin
Owner	22:	01 State Highway Agency	Custodian	21:	01 State Highway Agency

PROPOSED IMPROVEMENTS

Bridge Cost	94:	$572,000	Type of Work	75:	35 Rehabilitate-gen.
Roadway Cost	95:	$57,200	Length of Improvement	76:	48.9 ft
Total Cost	96:	$858,000	Future ADT	114:	196,094
Year of Cost Estimate	97:	2007	Year of Future ADT	115:	2036

NAVIGATION DATA

Navigation Control	38:	NA-no waterway	Horizontal Clearance	40:	0.0 ft
Vertical Clearance	39:	0.0 ft			
Pier Protection	111:	Not Applicable (P)	Lift Bridge Vertical Clearance	116:	

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ELEMENT CONDITION STATE DATA

Elm/Env	Description	Unit	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4
			15	Pre Concrete Top Flange							
Elm	**Description**	**Unit**	**Total Qty**	**% St 1**	**Qty. St 1**	**%St 2**	**Qty.St 2**	**%St 3**	**Qty. St 3**	**% St 4**	**Qty.St 4**
15	**Pre Concrete Top Flange**	**sq.ft**	**900.00**	**100%**	**900.00**	**0%**	**0.00**	**0%**	**0.00**	**0%**	**0.00**
The tops of the prestressed concrete box girders are concealed from view by a bituminous concrete wearing surface (See Photo Nos. 12 and 13).											
510	Wearing Surfaces	sq.ft	675.00	100%	675.00	0%	0.00	0%	0.00	0%	0.00
	The bituminous concrete wearing surface displays no deficiencies (See Photo Nos. 12 and 13).										
3230	*fectiveness (Wearing Surfac*	*each*	*675.00*	*100%*	*675.00*	*0%*	*0.00*	*0%*	*0.00*	*0%*	*0.00*
	Review of the deterioration along the wearing surface indicates that it is fully effective.										
			16	Re Conc Top Flange							
Elm	**Description**	**Unit**	**Total Qty**	**% St 1**	**Qty. St 1**	**%St 2**	**Qty.St 2**	**%St 3**	**Qty. St 3**	**% St 4**	**Qty.St 4**
16	**Re Conc Top Flange**	**sq.ft**	**5,772.00**	**100%**	**5,772.00**	**0%**	**0.00**	**0%**	**0.00**	**0%**	**0.00**
The tops of the reinforced concrete box girders are concealed from view by a bituminous concrete wearing surface (S ee Photo Nos. 12 and 13).											
510	Wearing Surfaces	sq.ft	5,580.00	0%	0.00	100%	5,578.00	0%	2.00	0%	0.00
	The bituminous concrete wearing surface has moderate rutting in both roadways (See Photo Nos. 12 and 13). The wearing surface in the northbound roadway displays a few potholes, areas of cracking (See Photo Nos. 13 and 14) and additional deficiencies noted as follows: *Northbound Roadway – The wearing surface is shoved upwards in the left shoulder and left lane adjacent to the deck joint at Abutment # 2 (See Photo No. 14).*										
3210	*el/Spall/Patch/Pot(Wear Su*	*each*	*2.00*	*0%*	*0.00*	*0%*	*0.00*	*100%*	*2.00*	*0%*	*0.00*
	Northbound Roadway – The bituminous concrete wearing surface has a 1' diameter x 2" deep pothole in the left and left middle lanes adjacent to the deck joint at Abutment # 2 (See Photo No. 14).										
3220	*Crack (Wearing Surface)*	*each*	*35.00*	*0%*	*0.00*	*100%*	*35.00*	*0%*	*0.00*	*0%*	*0.00*
	Northbound Roadway – The bituminous concrete wearing surface displays a few random transverse cracks up to 1/4" wide near both abutment deck joints in the right lane, a 2' diameter area of hairline map cracking along the Abutment # 1 deck joint at the right shoulder line and a 4' long x 15" wide area of hairline map cracking along the Abutment # 2 deck joint at the right shoulder line (See Photo Nos. 13, 14 and 28).										
3230	*fectiveness (Wearing Surfac*	*each*	*5,543.00*	*0%*	*0.00*	*100%*	*5,543.00*	*0%*	*0.00*	*0%*	*0.00*
	Review of the deterioration along the wearing surface indicates that it is substantially effective.										

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104	Pre Clsd Box Girder

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
104	Pre Clsd Box Girder	ft	225.00	10%	23.00	90%	202.00	0%	0.00	0%	0.00

The superstructure consists of five prestressed concrete box girders designated "A1" thru "A3", "KK" and "LL" and twenty-two reinforced concrete box girders designated "A" thru "V" (See Photo Nos. 15 and 16). The prestressed concrete box girders display several areas of efflorescence along the shear keys and some cracking (See Photo No. 15). In addition, the underside of Girder "A2" is up to 1" lower than Girder "A1" along the shear key from midspan to Abutment # 2 (See Photo Nos. 15 and 31).

The hollow area noted in the Routine Inspection report dated 4/3/2013 was not found.

1110	Cracking (PSC)	each	22.00	0%	0.00	100%	22.00	0%	0.00	0%	0.00

The prestressed concrete box girders have some transverse hairline cracks up to 3' long along the undersides of Girders "KK" and "LL" at midspan (See Photo No. 18).

1120	Efflorescence/Rust Staining	each	180.00	0%	0.00	100%	180.00	0%	0.00	0%	0.00

The prestressed concrete box girders have several areas of efflorescence along the shear keys (See Photo No. 15).

105	Re Clsd Box Girder

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
105	Re Clsd Box Girder	ft	990.00	50%	495.00	45%	445.50	5%	49.50	0%	0.00

The superstructure consists of five prestressed concrete box girders designated "A1" thru "A3", "KK" and "LL" and twenty-two reinforced concrete box girders designated "A" thru "V" (See Photo Nos. 15 and 16). The reinforced concrete box girders display several random spalls with and without exposed rebar, several areas of hairline cracking with and without efflorescence and rust staining, several exposed rebar chairs with minor corrosion (See Photo Nos. 15 and 16) and additional deficiencies noted as follows:

Girder "A" – The underside of the girder has a 2' long x 1' wide area of honeycombing near Abutment # 1 (See Photo No. 15).

1080	lamination/Spall/Patched Ar	each	4.00	0%	0.00	0%	0.00	100%	4.00	0%	0.00

The reinforced concrete box girders have several random spalls up to 8" diameter x 1" deep along the undersides of Girders "A", "K" and "L" (See Photo Nos. 17 and 18).

1090	Exposed Rebar	each	2.00	0%	0.00	100%	2.00	0%	0.00	0%	0.00

The spalls along the undersides of Girders "A", "K" and "L" have a few random exposed rebar with no significant section loss (See Photo Nos. 17 and 18).

1120	Efflorescence/Rust Staining	each	24.00	0%	0.00	100%	24.00	0%	0.00	0%	0.00

The underside and vertical face of Girder "A" has cracking with efflorescence (See Photo No. 17). The underside of Girder "V" has an area of cracking with rust stains near Abutment # 2.

1130	Cracking (RC and Other)	each	220.00	0%	0.00	100%	220.00	0%	0.00	0%	0.00

The reinforced concrete box girders have some transverse hairline cracks up to 4' long, several longitudinal hairline cracks up to 45' long (full length) (See Photo Nos. 17 and 18) and additional deficiencies noted as follows:

Girder "A" – The underside of the girder at midspan has several transverse hairline cracks up to 4' long that extend 1' up the vertical face (See Photo No. 17).

Girder "V" – The underside of the girder has a 30" long x 1' wide area of hairline map cracking near Abutment # 2. The vertical face of the girder has 3' high x 2' wide area of hairline map cracking at Abutment # 2 (See Photo No. 24).

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215	Re Conc Abutment

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
215	Re Conc Abutment	ft	302.00	1%	4.00	95%	288.00	3%	10.00	0%	0.00

The reinforced concrete abutments display some random spalls with and without exposed rebar, several hollow areas , several areas of cracking with and without efflorescence and rust staining and some random areas of abrasion (See Photo Nos. 19 thru 24).

1080	lamination/Spall/Patched Ar	each	65.00	0%	0.00	85%	55.00	15%	10.00	0%	0.00

The abutments display deficiencies as follows:

Abutment # 1 –

Below Girders "A", "H", "KK", "L", "Q", "S" and at East Face – The stem has a hollow area up to 42" wide x 30" high at each location (See Photo No. 19).

Below Girders "B", "J" and "T" – The stem has a hollow area up to 3' high x 18" wide with cracking at each location (See Photo No. 19).

Below Girder "K" – The stem displays an 18" wide x 4" high x 2" deep spall at the top with an adjacent 3' wide x 2' high hollow area (See Photo No. 21). In addition, there is a 1' diameter hollow area near the bottom.

Below Girder "V" – The stem displays a 2' high x 2' wide x 3" deep spall at the top with an adjacent 5' wide x 8" high hollow area that extends below Girder "U" (See Photo No. 22). In addition, there is a 3' high x 18" wide hollow area with cracking.

Abutment # 2 –

West Face – There is a 9" wide x 3" high x 1/4" deep spall near the top of the west face (See Photo No. 38).

Below Girders "D" and "L" – The stem has hollow areas up to 4' high x 2' wide with cracking (See Photo No. 20).

Below Girders "J", "N" and "U" – The stem has hollow areas up to 12' high x 6' wide (See Photo No. 20).

Below Girder "KK" – The stem displays a 6' high x 1' wide x 3" deep spall near the top and a 30" high x 30" wide hollow area near the bottom (See Photo No. 23).

Below Girder "T" – The stem displays a 4' wide x 3' high x 4" deep spall with an adjacent 12' high x 6' wide hollow area (See Photo No. 24).

1090	Exposed Rebar	each	4.00	0%	0.00	100%	4.00	0%	0.00	0%	0.00

The spall on the stem of Abutment # 2 below Girder "T" has exposed rebar with no significant section loss (See Photo No. 24).

1120	Efflorescence/Rust Staining	each	55.00	0%	0.00	100%	55.00	0%	0.00	0%	0.00

The abutment stems have several areas of efflorescence along the areas of cracking (See Photo Nos. 19 thru 21 and 24). In addition, the Abutment # 2 stem has rust staining along one area of cracking (See Photo No. 24).

1130	Cracking (RC and Other)	each	144.00	0%	0.00	100%	144.00	0%	0.00	0%	0.00

The abutment stems have several horizontal and vertical hairline cracks up to 12' long with additional deficiencies noted as follows:

Abutment # 1 – The stem has a total of nine areas of hairline map cracking up to 10' high x 8' wide below Girders "A" thru "C", "J", "LL" thru "M", "O", "P", "T" and "V". In addition, there are several areas of hairline map cracking in the hollow areas below Girders "B", "J", "T" and "V" (See Photo Nos. 19, 21 and 22).

Abutment # 2 – The stem has a total of nine areas of hairline map cracking up to full height x 10' wide below Girders "A" thru "C", "H" thru "K", "LL" thru "M", "V" and along east face. In addition, there are several areas of hairline map cracking in the hollow areas below Girders "D" and "L" (See Photo Nos. 20, 23, 24, 38 and 39).

1190	Abrasion(PSC/RC)	each	30.00	0%	0.00	100%	30.00	0%	0.00	0%	0.00

The stem at Abutment # 2 has random locations of abrasion up to 1/4" deep.

301 Pourable Joint Seal

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
301	Pourable Joint Seal	ft	278.00	0%	0.00	86%	238.00	0%	0.00	14%	40.00

There is a pourable seal joint at both abutments along the northbound roadway (See Photo No. 27 and 28). The joints have adhesion separations and some missing sealant.

The deck joints at both abutments along the southbound roadway are paved over (See Photo Nos. 25 and 26). There is cracking along the approximate locations of the joints.

2310	Leakage	each	90.00	0%	0.00	100%	90.00	0%	0.00	0%	0.00

Areas of wetness were noted along the faces of both abutments (See Photo Nos. 19 and 20).

2320	Seal Adhesion	each	40.00	0%	0.00	100%	40.00	0%	0.00	0%	0.00

The joints at both abutments along the northbound roadway have adhesion separations along the joint (See Photo Nos. 27 and 28).

2330	Seal Damage	each	40.00	0%	0.00	0%	0.00	0%	0.00	100%	40.00

There are random lengths of missing sealant along both joints along the northbound roadway (See Photo Nos. 27 and 28).

2340	Seal Cracking	each	50.00	0%	0.00	100%	50.00	0%	0.00	0%	0.00

The paved over deck joints at both abutments along the southbound roadway have a curb to curb x 1/8" wide transverse crack along the approximate locations of each joint (See Photo Nos. 25 and 26).

310 Elastomeric Bearing

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
310	Elastomeric Bearing	each	54.00	94%	51.00	4%	2.00	2%	1.00	0%	0.00

There are elastomeric bearings under the concrete box girders at both abutments. However, a majority of the pads are not visible due to the butted box girder superstructure (See Photo Nos. 29 and 30). The visible areas of the bearings display bulging at each abutment.

In addition, there is up to a 3/4" gap across a 30" length between the east end of the pad and the underside of Girder "A 1" at Abutment # 2 (See Photo No. 31).

2230	Bulging, Splitting or Tearing	each	53.00	96%	51.00	4%	2.00	0%	0.00	0%	0.00

The visible areas of the bearings display minor bulging (See Photo Nos. 29 and 30).

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321	Re Conc Approach Slab

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
321	Re Conc Approach Slab	sq.ft	10,753.15	50%	5,371.19	50%	5,381.96	0%	0.00	0%	0.00

The reinforced concrete approach slabs, if present, are concealed from view by a bituminous concrete wearing surface (See Photo Nos. 32 thru 35).

510	Wearing Surfaces	sq.ft	8,334.00	0%	0.00	98%	8,174.00	2%	160.00	0%	0.00

The wearing surfaces exhibit a few potholes, some patches, several areas of cracking, moderate rutting (See Photo Nos. 32 thru 35) and additional deficiencies noted as follows:

Southbound Roadway –
South Approach – The wearing surface approximately 8' from the deck joint has shoved approximately 1" upward for a 48' length beginning at the left shoulder line (See Photo No. 32).

Northbound Roadway –
South Approach – The patch approximately 6' from the deck joint has heaved upwards from the left lane to the middle right lane (See Photo No. 34).

North Approach – There is a patch in the left two lanes that has heaved upwards (See Photo No. 35).

3210	*el/Spall/Patch/Pot(Wear Su*	*each*	*910.00*	*0%*	*0.00*	*100%*	*910.00*	*0%*	*0.00*	*0%*	*0.00*

Deficiencies noted are as follows:

Northbound Roadway –
South Approach – The wearing surface displays a curb to curb x 6' wide patch approximately 6' from the deck joint that has full length adhesion separations along the south and north sides, an 8' long x 6' wide area of the patch that is cracked, settled and breaking up in the right lane near the shoulder and a 15" long x 1' wide x 3" deep pothole at the right shoulder line (See Photo No. 34 and 44).

Approximately 15' from the deck joint, there is a shoulder line to shoulder line x 1' wide area of wearing surface that is cracked, settled and breaking up with a 1' diameter x 2" deep pothole in the right lane and an 8" diameter x 2" deep pothole in the left middle lane. In addition, there is a 2' long x 1' wide x 3" deep pothole in the left middle lane approximately 30' from the deck joint (See Photo No. 34).

North Approach – The wearing surface has a curb to curb x 6' wide patch approximately 6' from the deck joint that has full length adhesion separations along both sides of the patch (See Photo No. 35).

3220	*Crack (Wearing Surface)*	*each*	*160.00*	*0%*	*0.00*	*0%*	*0.00*	*100%*	*160.00*	*0%*	*0.00*

The wearing surfaces along the approaches display cracking as follows:

Southbound Roadway –
South Approach – The wearing surface has a 6" width and a 4" width of transverse cracks up to 1/8" wide between the shoulder lines approximately 15' and 30' from the deck joint (See Photo No. 32).

North Approach – The wearing surface displays a 6" width of transverse cracks up to 1/8" wide starting at the left shoulder line approximately 15' from the deck joint (See Photo No. 33).

Northbound Roadway –
South Approach – The wearing surface exhibits an 8" width of transverse hairline cracks starting at the left shoulder line approximately 30' from the deck joint (See Photo No. 34).

North Approach – The wearing surface has some random longitudinal and transverse cracks up to 1/4" wide in the right lane along the right shoulder line and approximately 6" from the deck joint (See Photo No. 35).

3230	fectiveness (Wearing Surfac	each	7,264.00	0%	0.00	100%	7,264.00	0%	0.00	0%	0.00

Review of the deterioration along the wearing surfaces indicates that there is limited effectiveness.

8213 R/C Return Wall

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8213	R/C Return Wall	(LF)	27.00	0%	0.00	56%	15.00	44%	12.00	0%	0.00

There is a reinforced concrete return wall at each end of both abutments (See Photo Nos. 36 thru 39). The return walls display spalls with and without exposed rebar and random areas of cracking.

1080	lamination/Spall/Patched Ar	each	12.00	0%	0.00	0%	0.00	100%	12.00	0%	0.00

Deficiencies noted are as follows:

Southwest Return Wall – The wall has a 5' wide x 3" high x 1" deep spall along the horizontal construction joint (Se e Photo No. 36).

Southeast Return Wall – The wall displays an 18" high x 4" wide x 2" deep spall adjacent to the retaining wall and a 30" high x 15" wide hollow area near the abutment (See Photo No. 37).

Northwest Return Wall – The wall exhibits a 5' wide x 6" high x 1/2" deep spall and a 2' high x 9" wide x 2" deep spall along the horizontal construction joint (See Photo No. 38).

Northeast Return Wall – The wall has a 66" high x 6" wide x 3" deep spall adjacent to the retaining wall and a 2' high x 1' wide hollow area in the area of cracking near the abutment (See Photo No. 39).

1090	Exposed Rebar	each	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00

The spall at the Northeast Return Wall has exposed rebar with no significant section loss (See Photo No. 39).

1120	Efflorescence/Rust Staining	each	4.00	0%	0.00	100%	4.00	0%	0.00	0%	0.00

The Southeast and Northeast Return Walls have areas of cracking with efflorescence (See Photo Nos. 37 and 39).

1130	Cracking (RC and Other)	each	10.00	0%	0.00	100%	10.00	0%	0.00	0%	0.00

The return walls have some random vertical and horizontal hairline cracks up to 3' long with additional areas of cracking noted as follows:

Northwest Return Wall – The wall has a 3' wide x 2' high area of hairline map cracking (See Photo No. 38).

Northeast Return Wall – The wall displays two areas of hairline map cracking up to 10' high x 3' wide (See Photo No. 39).

8218 Backwall, All Types

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8218	Backwall, All Types	(LF)	302.00	99%	300.00	0%	0.00	1%	2.00	0%	0.00

The backwalls are mostly concealed from view by the prestressed and reinforced concrete box girders (See Photo Nos. 19 and 20). The visible areas of backwall have a few spalls and moderate debris on the bridge seat.

1080	lamination/Spall/Patched Ar	each	2.00	0%	0.00	0%	0.00	100%	2.00	0%	0.00

The backwall at Abutment # 1 between Girders "KK" and "LL" has two spalls up to 6" high x 6" wide x 4" deep along the joint (See Photo No. 40). The backwall at Abutment # 2 between Girders "KK" and "LL" has two spalls up to 5' high x 6" wide x 4" deep along the joint (See Photo No. 41).

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Structure Inventory and Appraisal Sheet (English Units)

8335 Guardrail, Vehicular

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8335	Guardrail, Vehicular	(LF)	98.90	76%	75.12	20%	19.78	0%	0.00	4%	4.00

There is a galvanized steel guardrail with steel blockouts and galvanized steel posts bolted to the inside face of the east parapet along the bridge and along the Southeast and Northeast Return Walls which continues along the parapets above the retaining walls onto the east side of both approaches. In addition, there is a galvanized steel guardrail with plastic blockouts and galvanized steel posts along the west side of the south approach for the southbound roadway (S ee Photo Nos. 42 thru 46).

The southeast guardrail adjacent to the end post is disconnected and missing connection bolts (See Photo No. 45). The southwest guardrail displays no deficiencies; however, the transition is bolted to the inside face of the parapet and therefore it is not compliant with current standards (See Photo No. 43).

515	Steel Protective Coating	sq.ft	594.00	100%	594.00	0%	0.00	0%	0.00	0%	0.00

The galvanized protective coating along the guardrails displays no deficiencies.

3440	*Eff (Stl Protect Coat)*	*each*	*594.00*	*100%*	*594.00*	*0%*	*0.00*	*0%*	*0.00*	*0%*	*0.00*

The galvanized protective coating along the guardrails is fully effective.

8336 Conc Bridge Parapet

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8336	Conc Bridge Parapet	(LF)	98.00	0%	0.00	100%	98.00	0%	0.00	0%	0.00

There is a safety shaped concrete rail with a single pipe metal rail on top along the west side of the southbound roadway (See Photo No. 47). There is a concrete parapet with a double pipe metal rail on top along the east side of the northbound roadway (See Photo Nos. 42, 44 and 46). The east concrete parapet has random areas of cracking.

1130	Cracking (RC and Other)	each	40.00	0%	0.00	100%	40.00	0%	0.00	0%	0.00

The inside face of the concrete parapet has several random hairline cracks (See Photo Nos. 42, 44 and 46).

8426 Concrete median barrier

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8426	Concrete median barrier	ft	49.00	100%	49.00	0%	0.00	0%	0.00	0%	0.00

There is a safety shaped concrete barrier with sloped granite curb along the median (See Photo Nos. 48 thru 53). The barrier has a few random spalls and scrapes.

1080	lamination/Spall/Patched Ar	each	5.00	100%	5.00	0%	0.00	0%	0.00	0%	0.00

The each side of the concrete median barrier has a few random minor spalls and scrapes along the top of the sloped granite curb (See Photo Nos. 48 thru 53).

8427 Pro Screen Type2

Elm	Description	Unit	Total Qty	% St 1	Qty. St 1	%St 2	Qty.St 2	%St 3	Qty. St 3	% St 4	Qty.St 4
8427	Pro Screen Type2	ft	98.00	100%	98.00	0%	0.00	0%	0.00	0%	0.00

There is a protective screen chain link fence attached to the concrete rail along the west side of the southbound roadway and to the concrete parapet along the east side of the northbound roadway (See Photo Nos. 42, 46 and 47). No deficiencies were noted.

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BRIDGE NOTES

Equipment Used: 33’ Bucket Truck
Traffic Control Used: Yes
Crash Truck Used: Yes
Local Police Used: Yes

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

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PAST INSPECTION

Inspection Date:	04/01/2015	Type:	1 Regular NBI
Inspector:		Pontis User Key:	ROY.DIBARTOLOMEO RO\
Scope:			

NBI:	☑	Other:	☐	Element:	☑
Underwater:	☐	Fracture Critical:	☐		

INSPECTION NOTES

Inspection Date: 04/01/2015
Crew Chief: Roy Di Bartolomeo (Collins)
Staff Inspector: Jonathan Figueroa (Collins)
Weather: Sunny

Superstructure (Rating = 5) – The prestressed concrete box girders have some transverse hairline cracks up to 3' long and vertical misalignment up to 1" along one shear key. The reinforced concrete box girders have several random spalls with and without exposed rebar up to 8" diameter x 1" deep, a few areas of hairline map cracking up to 3' high x 2' wide with and without rust staining, several longitudinal hairline cracks up to full length and some transverse hairline cracks up to 4 ' long (See Photo Nos. 15 thru 18, 24, 31 and 39).

Substructure (Rating = 6) – The abutments have some spalls up to 4' wide x 3' high x 4" deep with and without exposed rebar, several hollow areas with and without map cracking up to 12 ' high x 6' wide, several areas of hairline map cracking up to full height x 10 ' wide with and without efflorescenc, random horizontal and vertical hairline cracks up to 12' long and abrasion up to 1/4" deep (See Photo Nos. 19 thru 24 and 37 thru 39).

Safetywalks – There is a concrete safetywalk along the east side of the northbound roadway that is obstructed by the guardrail bolted to the inside face of the concrete parapet (See Photo Nos. 42, 44 and 46). The walk is concealed from view by dirt and sand up to 1 ' deep.

Curbs – There is a monolithic sloped concrete curb along the west side of the southbound roadway and a rectangular granite curb along the east side of the northbound roadway (See Photo Nos. 42 thru 44, 46 and 47). No deficiencies were noted.

Average West Curb Reveal: 2-1/2" Average East Curb Reveal: 10"

For additional inspection notes, see the file entitled "065301_Inspection Notes_Additional_BrM_Notes".

Rhode Island Department of Transportation

Bridge Inspection Report

Structure Inventory and Appraisal Sheet (English Units)

PAST INSPECTION

Inspection Date:	04/03/2013	Type:	1 Regular NBI
Inspector:		Pontis User Key:	Pontis Pontis User

Scope:

NBI:	☑	Other:	☐	Element:	☑
Underwater:	☐	Fracture Critical:	☐		

INSPECTION NOTES

Inspection Completed By: AECOM, 04-03-2013
Crew Chief: Jeffrey Sam, E.I.T.
Inspectors: Zachary Zavalianos, E.I.T.
Manpower: 2-Person Crew x 1 day
Log Direction: Bridge is logged from south to north.
Equipment: Two bucket trucks, local police, traffic control, inspection tools.
Access: Topside access from the dead end of Seymour Street and through gate on Poe Street.

WORK CANDIDATES

Work Candidate ID	Action	Agency Status	Agency Priority	Assigned to a Project	Rec. Date	Comp. Date
0000000-BWXG-040615-E2360 E3550	Joints-Replace		Medium	0	04/03/2013	
Generated by user "christopher.gagnon" on 4/6/2015						
0000000-BWXG-040615-B050E 9FB25	Bridge Washing		Medium	0	04/03/2013	
Generated by user "christopher.gagnon" on 4/6/2015						
0000000-BWXG-040615-AE7D7 21277	Substructure-Seal Concrete		Medium	0	04/03/2013	
Generated by user "christopher.gagnon" on 4/6/2015						