

RIDOT Bridge Inspection Report

Bridge Condition Poor

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

IDENTIFICATION		INS	PECTION	
Bridge ID: 126001	Date of Routine Inspect		7/9/2021	
NBI Number Crook Point Bascule Bridge	Frequency (91):		24	
Structure Name: Crook Point Bascule Bridge	Next Inspection:		7/9/2023	
-ocation (9):		req (92)	Last Insp (93)	Next In
Carries (7): E.Prov. Sec.Track	Element	24	7/9/2021	7/9/202
Type of Service (42A): 2 Railroad	Fracture Critical (A)	24	7/9/2021	7/9/202
Feature Crossed (6): SEEKONK RIVER	Underwater (B)	48	7/17/2019	7/9/202
Type of Service (42B): 5 Waterway	Special Insp (C)	24	7/9/2021	7/9/202
Placecode (4): Providence				
County (3): Providence	LOAI	IG AND POSTING	i	
State (1): 44 Rhode Island	Posting Status (41)	K Close	ed to all traffic	
Station: 900 - Not NBI	Posting % (70):	0 >39.9% below		
	Rating Date:	8/21/20	14	
Region (2):District 3	Design Load (31):	0 Unkno	own	
Latitude (16): 41.8237667	Opr Method (63):	0 Field	eval and docs	
Longitude (17): -71.3848639	Opr Rating (64):	0.00 To	ns	
Owner (22): 01 State Highway Agency	Inv Method (65):	0 Field	eval and docs	
Custodian (21): 01 State Highway Agency	– Inv Rating (66):	0.00 Tons		
Year Built (27): 1908 Border State: Not Applicable (P)				
Year Recon (106): Border Number:				
Historical (37): 3 Possibly eligible for % Responsibility:				

DECK G	EOMETRY						
Deck Geometry <mark>(68)</mark> :	N Not applicable (NBI)						
Deck Area:	25,500.00						
Deck Type <mark>(107)</mark> :	9 Other	3	3	3	3		
Wearing Surface (108A):	9 Other	2015	2017	2019	2021		
Membrane <mark>(108B)</mark> :	N N/A (no deck (NBI))	DECK CONDITION					
Deck Protection (108C):	N N/A (no deck (NBI))	Deck Rating (58):		3 Serious			
O. to O. Width (52):	30.00	Bridge Rail (36A):		0 Substandard			
Curb / Sidewalk Width L (50A):	0.00	Transition (36B):		0 Substandard			
Curb / Sidewalk Width R (50B):	0.00	Approach Rail (36	C) :	0 Substandard			
Median (33):	0 No median	Approach Rail End	ds (36D):	0 Substandard			

SUPERSTRUC	CTURE GEOMETRY						
# of Main Spans <mark>(45)</mark> :	1						
# of Approach Spans (46):	11	5	5	5	5		
Main Material <mark>(43 A)</mark> :	3 Steel						
Main Design <mark>(43 B)</mark> :	16 Movable-Bascule	2015	2017	2019	2021		
Max Span Length <mark>(48)</mark> :	135.00	SUPERSTRUCTURE CONDITION					
Structure Length (49):	850.00	Superstructure F					
NBIS Length (112):	Too Short	Structure Evaluation (67):					
Temp Structure (103):	T Temporary						
Skew (34):							
Structure Flared (35):	1 Yes, flared						
Parallel Structure (101):	No bridge exists						
Approach Alignment (72):	0 Bridge closed						



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ROUTE ON STRUC ROADWAY	_	ROADWAY	CLASSIFICATION	I	CLEARA	NCES
Waterway Adequacy	(71): 6 Equ	al Minimum				
Scour Rating (113):	6 Calo	cs not made	Channel Rating (6	1):	6 Bank Slumpi	ng
Lift Bridge Vertical Clearance (116):			Substructure Ratir		RE CONDITION 4 Poor	
Pier Protection (111): 3 In-F		lace, Deteriorated	2015	2017	2019	2021
Nav Vert Clearance (39): Nav Horiz Clearance (40):) 18	4	4	4	4
Navigation Control (,	METRY t Not Required				

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Kind of Hwy <mark>(5B)</mark> :	Not Applicable (P)	Level Service (5C):	0 None of the below	Min Vert Over (53):	99.99 99.99
Route Num (5D):	_	NHS <mark>(104)</mark> :	0 Not on NHS	Vert Ref <mark>(54A)</mark> :	N Feature not hwy or RR
LRS Route (13A/B):	0/0	Defense Hwy <mark>(100)</mark> :	0 Not a STRAHNET hwy	Horizontal (47):	
Milepost (11):	0.00 mi (0.00 km)	Toll Facility (20):	3 On free road	Min Lat Left (56):	99.99
Suffix <mark>(5E)</mark> :	Unknown (NBI)	ADT <mark>(29)</mark> :		Min Lat Right (55B)	99.90
Lanes On (28A):	0	Pct Trucks (109):		Horiz Ref <mark>(55A)</mark> :	N Feature not hwy or RR
Detour Length (19):	0.00 mi (0.00 km)	ADT Year <mark>(30)</mark> :		Underclearance (69): N Not applicable (NBI)
Suffix (5E): Lanes On (28A):	Unknown (NBI) 0	ADT (29): Pct Trucks (109):	3 On free road	Min Lat Right (55B): Horiz Ref (55A):	99.90 N Feature not hwy or RR

BRIDGE NOTES

TRAFFIC CONTROL INFORMATION: None EQUIPMENT USED: SPRAT Rope Access, Northeast Safety Boat. POLICE DETAIL NEEDED: None CONTRACTED PERSONNEL: None INSPECTION RESTRICTIONS: None

ACCESS TO SITE: Access to the bridge can be found along the east and west embankments. Gano Park off Power Street is located on the west side of the Seekonk River and inspection vehicles can be parked in the parking lot, adjacent to the baseball field. There is a security gate with a padlock, the door locking hardware was loose and able to be slid open to allow access to the bridge on the west approach. The east approach was accessed via an abandoned walking trail (old rail spur) through some brush off Waterfront Drive, near Kelley Metals Corporation.

MISCELLANEOUS INFORMATION: The inspection of the raised bascule span requires rope access trained technicians to perform the inspection due to the advanced climbing techniques that are required to inspect the truss members.

As per Louis Berger & Associates, Inc. in September 1993 for the Metropolitan Providence Transportation Improvement Study, the report stated that Gordon R. Archibald, Inc. performed a field inspection, at the request of RIDOT, in June 1983. The report was titled Preliminary Observations on the Condition of the Seekonk River Lift Bridge (Railroad). The inspection report stated "There are presently cables assisting in keeping the bridge in the raised position." Remnants of the cables were found at the north side of the counterweight during this inspection but there was no indication of where the cables were originally attached to assist in keeping the bridge in the raised position.

INSPECTION NOTES



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ROUTINE INPECTION ON: 6/28/2021, 6/29/2021, 6/30/2021, 07/01/201, 7/2/2021, 7/3/2021, 7/8/2021 and 7/9/2021 by AI Engineers Inc. CREW CHIEF: Chris Kolasa, P.E. ROPE ACCESS BY CAN-USA WEATHER CONDITIONS: 80F-97F degrees Sunny, 6/28-6/30, 07/08, 07/09 and 60F-69F degrees Rainy 7/1, 7/2.

NBI RATING SUMMARY: The bridge is in overall Poor Condition. The condition ratings for Deck (Item 58) (3-Serious), Superstructure (Item 59) (5-Fair), Substructure (Item 60) (4-Poor) and Channel/Channel Protection (Item 61) (6-Bank Slumping) have not changed since last inspection.

After two days of routine inspection of this bridge, on the evening of 06/29/21, the bascule span 7 caught fire that night and continued to burn the following day. During this fire incident, inspection was not allowed on 06/30/21. Immediately, RIDOT requested AI Engineers Inc. in co-ordination with CAN-USA (Rope Access Company) to provide a Post Fire Emergency Inspection of the Bascule Span 7. See "Post Fire Emergency Damage Inspection Report" for More Information.

DEFLECTION AND VIBRATION: Bridge is closed.

CHAIN LINK FENCE: Previously mentioned a hole in the fence on the west approach has been repaired since last inspection (Photo 5).

See "126001_Inspection Notes.pdf" for more information.

CHANNEL NOTES:

FENDER SYSTEM: Fender system has been removed since last inspection (Photos 3 and 4).

EMBANKMENTS: All embankments exhibit moderate to heavy vegetation growth noted.

There is a detached and hanging conduit in the channel in span 2 at south face (Photo 125).

As per 2019 Underwater Inspection Report 2019

CHANNEL NOTES: Based on visual observation and soundings performed during this inspection, channel bottom elevations are generally uniform with no apparent scour observed around the perimeter of the piers except as described under Element 6000 - Scour under Element 213 - Masonry Pier Walls. Compared to the 2015 soundings there are several areas of apparent aggradation and degradation along the piers, however, the greatest changes occur in areas with large stones or timber debris which could affect sounding measurements. Additionally, soundings were taken in different locations during this inspection to conform with the new RIDOT guidelines for soundings."

CHANNEL DEBRIS: There are areas of timber debris accumulation up to 12" diameter around the perimeter of the piers that do not significantly affect the hydraulic opening at the bridge. In Span #8, there is a train car resting along the channel bottom near the northeast corner of Pier #7 that partially constricts the hydraulic opening through this span. At Pier #6, the southeast corner has timber debris 10' diameter x 6' high. At Pier #6, the downstream (south) nose has an area of timber debris 10' long x full pier width due to the failing fender system. At Pier #7, the upstream (north) nose has an area of 8" diameter timber debris 5' long (east face) x full pier width x 4' high. At Pier #8, the upstream (north) nose has timber formwork full pier width x 4' wide extending 5' long x 3' wide on the west side and 14' long x 18" wide on the east face. At Pier #8, the southeast corner has timber formwork 5' long x 18" wide.

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
31/3	Timber Deck	11,750.00	0%	0.00	45%	5,330.00	23%	2,675.00	32%	3,745.00
1140/3	Decay/Section Loss	11,750.00	0%	0.00	45%	5,330.00	23%	2,675.00	32%	3,745.00
38/3	Re Concrete Slab	600.00	0%	0.00	100%	600.00	0%	0.00	0%	0.00
8368/3	Graffiti	600.00	0%	0.00	0%	0.00	100%	600.00	0%	0.00
107/3	Steel Opn Girder/Beam	3,180.00	0%	0.00	90%	2,861.00	10%	319.00	0%	0.00
1000/3	Corrosion	3,180.00	0%	0.00	90%	2,861.00	10%	319.00	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
113/3	Steel Stringer	688.00	0%	0.00	100%	688.00	0%	0.00	0%	0.00
1000/3	Corrosion	688.00	0%	0.00	100%	688.00	0%	0.00	0%	0.00
120/3	Steel Truss	135.00	0%	0.00	100%	135.00	0%	0.00	0%	0.00
1000/3	Corrosion	135.00	0%	0.00	100%	135.00	0%	0.00	0%	0.00
152/3	Steel Floor Beam	247.00	0%	0.00	0%	0.00	100%	247.00	0%	0.00
1000/3	Corrosion	247.00	0%	0.00	0%	0.00	100%	247.00	0%	0.00
162/3	Stl Gus Plate	32.00	0%	0.00	100%	32.00	0%	0.00	0%	0.00
1000/3	Corrosion	32.00	0%	0.00	100%	32.00	0%	0.00	0%	0.00
202/3	Steel Column	1.00	0%	0.00	100%	1.00	0%	0.00	0%	0.00
213/3	Masonry Pier Wall	450.00	0%	0.00	16%	70.00	82%	370.00	2%	10.00
1610/3	Mortar Breakdown (Masonry)	302.00	0%	0.00	0%	0.00	100%	302.00	0%	0.00
1620/3	Split/Spall (Masonry)	15.00	0%	0.00	100%	15.00	0%	0.00	0%	0.00
1640/3	Masonry Displacement	16.00	0%	0.00	13%	2.00	63%	10.00	25%	4.00
4000/3	Settlement	82.00	0%	0.00	37%	30.00	56%	46.00	7%	6.00
6000/3	Scour	35.00	0%	0.00	66%	23.00	34%	12.00	0%	0.00
8368/3	Graffiti	1,000.00	0%	0.00	0%	0.00	100%	1,000.00	0%	0.00
216/3	Timber Abutment	40.00	0%	0.00	0%	0.00	0%	0.00	100%	40.00
7000/3	Damage	40.00	0%	0.00	0%	0.00	0%	0.00	100%	40.00
217/3	Masonry Abutment	65.00	98%	64.00	2%	1.00	0%	0.00	0%	0.00
8368/3	Graffiti	200.00	0%	0.00	0%	0.00	0%	0.00	100%	200.00
311/3	Moveable Bearing	57.00	0%	0.00	95%	54.00	5%	3.00	0%	0.00
1020/3	Connection	3.00	0%	0.00	0%	0.00	100%	3.00	0%	0.00
313/3	Fixed Bearing	57.00	0%	0.00	63%	36.00	37%	21.00	0%	0.00
1000/3	Corrosion	36.00	0%	0.00	100%	36.00	0%	0.00	0%	0.00
1020/3	Connection	21.00	0%	0.00	0%	0.00	100%	21.00	0%	0.00
332/3	Timb Bridge Railing	790.00	0%	0.00	0%	0.00	0%	0.00	100%	790.00
1140/3	Decay/Section Loss	790.00	0%	0.00	0%	0.00	0%	0.00	100%	790.00
8107/3	Steel Opn Girder/Beam ENE	570.00	0%	0.00	90%	514.00	10%	56.00	0%	0.00
1000/3	Corrosion	570.00	0%	0.00	90%	514.00	10%	56.00	0%	0.00
8218/3	Backwall, All Types	65.00	100%	65.00	0%	0.00	0%	0.00	0%	0.00
8368/3	Graffiti	200.00	0%	0.00	0%	0.00	0%	0.00	100%	200.00
8245/3	Stone Masonry Wingwall	40.00	0%	0.00	100%	40.00	0%	0.00	0%	0.00
8368/3	Graffiti	40.00	0%	0.00	0%	0.00	100%	40.00	0%	0.00
8370/3	Steel Diaphragms	350.00	0%	0.00	94%	328.00	6%	22.00	0%	0.00
1000/3	Corrosion	328.00	0%	0.00	100%	328.00	0%	0.00	0%	0.00
1900/3	Distortion	22.00	0%	0.00	0%	0.00	100%	22.00	0%	0.00
8374/3	Loose or Missing Bolts	13.00	0%	0.00	100%	13.00	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
31	Timber Deck	3	11,750.00	sq.ft	0.00	5,330.00	2,675.00	3,745.00



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The timber deck is composed of timber railroad ties that rest on the top flanges of the main load carrying girders	
in all spans. The ties are typically located along the north half of each span except in Spans 6 to 8 where they are	
across the entire width of the span. The railroad ties have areas of heavy to severe rot, decay, insect infestation	
and there are numerous railroad ties that have extensive fire damage. Approximately 50% of the railroad ties for	
the entire bridge are severely deteriorated. The timber safety walks have heavy deterioration throughout Span 10	
with fire damage at the north end. Numerous timber deck ties exhibit fire damage and deterioration (Photos 7 and	
13 to 17). SPAN 7 (Bascule Span): There are numerous anchor plates, ties and approximately 15' to 20' long	
sections of rail at the top of the span that are loose and hanging (Photo 15). There are a few steel rail sections that	
are being held by one (1) bolt resting against the tie. In panel 6, there was a loose rail section that was secured	
with a lanyard. Numerous areas of timber debris were removed during the damage inspection, please see 'Post	
Fire Damage Inspection' (Photo 17).	

1140	Decay/Section Loss	3	11,750.00	sq.ft	0.00	5,330.00	2,675.00	3,745.00
	The railroad ties have numerous railroad ties railroad ties for the ent	that have fire	damage from van	dalism. App	proximately 50%	6 of the		

TIE DETERIORATION (Photos 13 thru 17):

- Span 1 30 of 56 (54%);
- Span 2 29 of 64, with 2 missing (45%);
- Span 3 35 of 63, with 11 missing (56%);
- Span 4 44 of 64, with 4 missing (69%);
- Span 5 48 of 64, with 6 missing (75%);
- Span 6 16 of 47 (34%);
- Span 7 Majority are deteriorated;
- Span 8 37 of 84, with 9 missing (44%);
- Span 9 27 of 50 (54%);
- Span 10 52 of 66, with 1 missing (79%);
- Span 11 55 of 103 (53%);

- Span 12 - 71 of 121, with 2 missing (64%) = Total % deteriorated (57%).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
38	Re Concrete Slab	3	600.00	sq.ft	0.00	600.00	0.00	0.00

There is a reinforced concrete slab in Span 5 that is 3.25" thick that was used to support the control house for the bascule lift span. The concrete slab exhibits heavy graffiti and minor edge spalls at random locations. (Photo 18).

8368	Graffiti	3	600.00	sq.ft	0.00	0.00	600.00	0.00
	The concrete slab exhibi							

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
107	Steel Opn Girder/Beam	3	3,180.00	ft	0.00	2,861.00	319.00	0.00

The top flanges of the girders have scattered areas of rivet head loss measuring up to 100% (Photos 19 & 20). There are areas of peeling paint and moderate to heavy rusting throughout the girders. The bottom flanges and lower webs of the girders typically have scattered moderate to heavy steel delamination that measures up to 6" high. There are scattered vertical stiffeners that have 100% section loss at the lower ends near the bottom flange (Photos 21-26, 29, 31- 35, and 37-47). See the attached document labeled "126001_Element 107 Steel Open Girder.pdf" for additional comments and conditions.

1000	Corrosion	3	3,180.00	ft	0.00	2,861.00	319.00	0.00
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The top flange of the girders have scattered areas of rivet head loss (up to 100%) (Photos 19 & 20). There are areas of peeling paint and moderate to heavy rusting throughout the girders. The bottom flanges and lower webs of the girders typically have scattered moderate to heavy steel delamination that measures up to 6" high. There are scattered vertical stiffeners that have 100% section loss at the lower ends near the bottom flange (Photos 21-26, 29, 31- 35, and 37-47).

See the attached document labeled "126001_Element 107 Steel Open Girder.pdf" for additional comments and conditions.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
113	Steel Stringer	3	688.00	ft	0.00	688.00	0.00	0.00

There are steel stringers in Spans 6 and 7. The stringers typically have peeling paint and light to moderate rust throughout.

1000	Corrosion	3	688.00	ft	0.00	688.00	0.00	0.00

The stringers typically have peeling paint and light to moderate rusting throughout.

SPAN 6:

• The bottom flange of Stringer "A" at the connection to Floorbeam "B" exhibits pack rust that measures 3/8" thick.

• The connections between Stringers "B", "C" and "D" at Floorbeam "A" exhibit up to 1" thick	
pack rust at Floorbeam "A" (Photo 49).	

• The stringers between Floorbeam "A" and Floorbeam "B" exhibit typical section loss with steel delamination along the bottom flange angles measuring up to 2' from Floorbeam "B".

At Othig was "A", the next face of the better flavor even be better of Electronic Tool Dearn B

• At Stringer "A", the north face of the bottom flange angle between Floorbeam "A" and Floorbeam "B" has steel delamination and section loss measuring full length x up to 2" high x 1/16" to 1/8" deep on the vertical face, and up to full width of the top of the horizontal leg. The north face of Stringer "C" between Floorbeams "A" & "B" is similar but less severe.

• There is 1/4" pack rust at the bottom angle of Stringer "A" at Floorbeam "A".

• There are random vertical stiffeners that exhibit moderate to heavy steel delamination near the base.

• Stringer "C" between Floorbeams "A" & "B" has a stiffener adjacent to Floorbeam "B" with a hole at the base measuring 3" high x full width (Photo 50).

SPAN 7:

There are scattered areas of pack rust between the stringer flanges and connection plates.
There is pack rust between Stringer "D" and the diagonal connection plate measuring 1.5" thick in Panel 5 (Photo 51). This is similar in Panel 6 at Floorbeam 5, but with up to 3/4" pack rust at the top flange. The bracing connection plate also has two (2) popped rivets (Photo 51).

Machinery Stringers

• At Stringer "C" there is an "L"-shaped web hole at the counterweight measuring 9" high x up to 4" long with adjacent section loss measuring down to 1/16" to 1/8" remaining x up to 1-1/2" wide (Photo 52).

• The center connection plate below Stringer "C" at the counterweight has a hole at the south side that measures 4-1/2" wide x 6" long (Photos 52 & 53).

• The south vertical stiffener below Stringer "C" has a hole at the top that measures 4" long x 4-1/2" wide (Photo 53).

• The machinery stringer bracing angles have typical pack rust between each angle measuring up to χ^2 thick.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
120	Steel Truss	3	135.00	ft	0.00	135.00	0.00	0.00



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Span 7 is the moveable rolling bascule portion of the bridge and is comprised of a Warren Truss (Photos 1 & 3).	
The top gear drive platforms typically have rust and grease throughout. The members composing the trusses have	
peeling paint, light to moderate rusting, isolated areas of heavy rusting and section loss, with random areas up to	
100%. There is typical pack rust between the top chord lacing angles and the web plates and connection plates.	
There is heavy graffiti throughout all elements associated with Span 7. See the attached document labeled	
126001_Element 120 Steel Truss.pdf for additional comments and conditions.	

1000	Corrosion	3	135.00	ft	0.00	135.00	0.00	0.00
	See the attached docum	ont labolad	"126001 Element	120 Stool	Truce ndf" for ad	ditional		

See the attached document labeled "126001_Element 120 Steel Truss.pdf" for additional comments and conditions

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ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
152	Steel Floor Beam	3	247.00	ft	0.00	0.00	247.00	0.00

There are three (3) steel floorbeams in Span 6, the track girder span, and seven (7) steel floor beams in Span 7, the rolling lift bascule span. The floorbeams have peeling paint, light to moderate rusting and heavy graffiti throughout.

1000	Corrosion	3	247.00	ft	0.00	0.00	247.00	0.00

SPAN 6:

The floorbeams exhibit moderate steel delamination along the bottom flange angles at scattered locations.

SPAN 7

The east face of the floorbeams in Span 7 have heavy accumulation of debris and moderate to heavy steel delamination along the lower webs and bottom flanges (Photos 90-93). There are also scattered stiffeners with 100% section loss up to 10" high x 1" wide at the base (Photo 92).

The majority of the Span 7 floorbeam east face vertical stiffeners below the stringer connection angles have heavy section loss and areas of up to 100% section loss. (Photo 93).

The lower portion of the east face floorbeam webs have moderate to heavy section loss measuring up to full length x 16" high x 1/8" deep.

The floorbeams also exhibit moderate to heavy steel delamination and section loss along the top of the web between the top flange and lateral bracing connection plates near the north and south trusses.

The floorbeam top flange connections to the vertical truss members have areas of pack rust between the vertical truss members and the connection plates measuring up to 3/4" thick (Photo 94).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
162	Stl Gus Plate	3	32.00	each	0.00	32.00	0.00	0.00

There are scattered areas where the gusset plates in Span 7 have moderate rusting and minor steel delamination as well as isolated areas of distortion due to pack rust (Photos 95 and 96).

1000	Corrosion	3	32.00	each	0.00	32.00	0.00	0.00



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SPAN 7:

• There is 100% section loss measuring 8" long x 8" wide to the lower horizontal connection plate south of the center support under the motor house.

• The bottom chord gusset plates have section loss along the floorbeam top flanges

measuring full width of the floorbeam top flange x up to 1" high x up to 1/4" deep (Photos 95 and 96). The gusset plates are nominally 1/2" thick.

• The North Truss gusset plates at Panel Point U1 exhibit heavy steel delamination with section loss measuring up to full width x 6" wide x 1/8" thick remaining within the bottom chord.

• Random gusset plates have up to 1.5" thick pack rust at the top of both sides and the edges of the gusset plates at both sides are reduced to 3/16" thick.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
202	Steel Column	3	1.00	each	0.00	1.00	0.00	0.00

The north and south bascule catwalks and drive gear are supported by two (2) steel columns on each side of the bridge. The north stairway is also partially supported by the columns. The west column of the north support has a bent angle on the southwest side that measures approximately 15" long x up to 1-3/4" bent out-of-plane located adjacent to the track Girder "A" top flange (Photo 97). The northwest and southwest columns along the base at the anchor bolt stiffeners have full width x up to 3-1/2" high areas of steel delamination with 1/8" deep section loss (Photo 98).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
213	Masonry Pier Wall	3	450.00	ft	0.00	70.00	370.00	10.00

Above Water Inspection Notes: The stone masonry pier walls exhibit areas of missing mortar, voids, misaligned stones, cracked stones and areas of rust/efflorescence noted at random locations (Photos 99 and 100). The east face of Pier 11 at the bridge seat has a broken capstone at Girder "C" in Span 11 that measures 22" high x 44" wide x 20" deep (Photo 101). Underwater Inspection Notes Dated 07/11/2019: The stone masonry pier stems have deteriorated / missing mortar, random cracked stones, and spalled stones up to 3" deep. The stone blocks have settled at the pier noses (a majority of the settlement occurring at the upstream (north) pier nose) with some displaced stones. See the Underwater Inspection Report dated 7/11/2019 for additional information regarding the subsurface inspection of Bridge No. 126001 and as described below.

Mortar Breakdown (Masonry)	3	302.00	ft	0.00	0.00	302.00	0.00

The stone masonry pier walls exhibit areas of missing mortar, voids, misaligned stones, cracked stones and areas of rust/efflorescence noted at random locations (Photos 99 and 100).

Underwater Inspection Notes dated 07/11/2019:

The stone masonry pier stems have 100% deteriorated / missing mortar with penetrations up to 1.8' (6" average) between stones extending from the high water mark down to the channel bottom. This mortar deterioration has resulted in some settlement and displacement of the stone blocks at the pier noses.

At the southeast corner of the Pier #2 stem there is a void 15" long (east face) x 18" wide (south face) x 4" high x 12" deep between the stone masonry stem and the concrete apron along the channel bottom.

1620	Split/Spall (Masonry)	3	15.00	ft	0.00	15.00	0.00	0.00
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1610

			RIDOT E	Bridge	1	-		126001
			nspectior	-		Cro	ok Point Bas	cule Bridge
	DOT		-	-	Л		tor: CHRISTOF	
Di	iven to get you there	Bridge	Condition P	oor		Inspection [Date	07/09/2021
	The stone mason stones up to 3" dee east face of the pie wide. At the northe have spalls up to 3 Underwater Inspec	ep. At Pier #6, the er in the 8th course east corner of Pier ' wide x 2' high x 6	re is a spalled sto from the cap. At #11, the stone blo " deep (Photo 10"	ne 3' long > Pier #9, the ocks in the	k 22" high x 7" de ere are cracks up	ep on the to 1/2"		
	The stone masonry stones up to 3" dec east face of the pie wide. At the northe have spalls up to 3	/ pier stems have r ep. At Pier #6, the er in the 8th course east corner of Pier	andom cracked s re is a spalled sto from the cap. At #11, the stone blo	ne 3' long > Pier #9, the	k 22" high x 7" de ere are cracks up	ep on the to 1/2"		
1640	Masonry Displaceme	nt 3	16.00	ft	0.00	2.00	10.00	4.00
	Pier #2: A cap ston channel bottom. At to the west.							
	Pier #4: At the nort stone blocks are bi					cap, the		
	Pier #8: At the nort shifted 4" to the we		e pier, the stone b	lock in the	8th course from	the cap is		
	Pier #10: At the up shifted up to 5" to t wide missing stone south (Photo 100). deep.	he west. At the 9the block at the north	h course from the west corner and t	cap, there he adjacen	is a 4' long x 2' h t stone is shifted	high x 2' 1' to the		
	Pier #11: At the no cap are shifted 4" t		• • • • •	one blocks	in the 7th course	from the		
	Also see Underwat	er Inspection Note	s Dated 07/11/20	19.				
4000	Settlement	3	82.00	ft	0.00	30.00	46.00	6.00
	Underwater Inspec	tion Notes dated 0	7/11/2019:					
	The stone blocks h high water mark do settlement occurrir	own to the channel	bottom at the pie	r noses wit				
6000	Scour	3	35.00	ft	0.00	23.00	12.00	0.00

RIDOT Inspection Report (v2.8cn)

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

Bridge Condition Poor

Underwater Inspection Notes 07/11/2019:

Based on visual observation and soundings performed during this inspection, channel bottom elevations are generally uniform with no apparent scour observed around the perimeter of the piers. Compared to the 2015 soundings there are several areas of apparent aggradation and degradation along the piers, however, the greatest changes occur in areas with large stones or timber debris which could affect sounding measurements.

There are several areas of scour adjacent to the piers noted as follows:

Pier #3: The previously noted 10' diameter x 3' deep scour depression at the upstream (north) end of the pier was not found during this inspection. The previously noted exposed timber cribbing at the upstream (north) nose of the pier was not found during this inspection.

Pier #4: The previously noted 6' diameter x 2' deep scour depression at the upstream (north) end of the pier was not found during this inspection. The previously noted exposed timber cribbing at the upstream (north) nose of the pier was not found during this inspection.

Pier #5: There is aggradation up to 5' at the upstream (north) pier nose. The previously noted 2' deep localized area of scour at the downstream (south) pier nose was not found during this inspection.

Pier # 6: There is a 5' deep localized area of scour at the downstream (south) pier nose that is filled with timber debris.

Pier #7: The previously noted 3' deep scour depression at the upstream (north) end of the pier was not found during this inspection due to the timber debris.

Pier #8: At the upstream (north) nose of the pier, there is timber formwork full pier width x 4' wide extending 5' long x 3' wide on the west side and 14' long x 18" wide on the east side along the channel bottom. There is exposed timber formwork along the channel bottom at the southeast corner 5' long x 18" wide. There are two 6" high timber steps exposed which do not appear to extend beneath the pier stem.

8368	Graffiti	3	1,000.00	ft	0.00	0.00	1,000.00	0.00

There is moderate to heavy graffiti at random locations (Photo 101).

	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
216	Timber Abutment	3	40.00	ft	0.00	0.00	0.00	40.00
	EAST ABUTMENT #3: Th the east end of the bridge	•		-	•	••	ers "C" to "J" at	
7000	Damage The timber pile abutme	3 nt has heavy	40.00 v rot and fire dam	ft	0.00 out (Photos 102	0.00 and 103)	0.00	40.00
7000	Damage The timber pile abutme						0.00	40.00
	0						0.00 QTY	40.00 QTY
7000 ELEM	The timber pile abutme	nt has heavy	/ rot and fire dam	nage through	out (Photos 102	and 103).		

There is heavy graffiti up to 100% of total area on both abutments.





Crook Point Bascule Bridge

126001

Bridge Condition Poor

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

		Bridge	Condition	P001		Паресноп	Date	01/09/202
ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
11	Moveable Bearing	3	57.00	each	0.00	54.00	3.00	0.00
	The majority of the beari locations of missing anc			and steel de	lamination (Pho	oto 107). There are	several	
1020	Connection SPAN 1: • The south face of delamination build up. PIER 10: • There are no anch				·		3.00	0.00
LEM	"B".	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
13	Fixed Bearing	3	57.00	each	0.00	36.00	21.00	0.00
1000	Corrosion The majority of the bea SPAN 5: There is beavy section	-				36.00	0.00	0.00
1020	There is heavy section of Span 5 (Photo 108).							
	 Connection SPAN 1: At Pier 1 Girder "E SPAN 2: At Pier 2 Girder "E At Pier 2, the north SPAN 3: At Pier 3, there artwo (2) missing at Girde SPAN 4: At Pier 4, the north At Pier 4, the north SPAN 5: There is heavy se bearings of Span 5 (ph) 	D", there are h face of Gird e four (4) mis er "D". h face of Gird h face of Gird	four (4) missing a der "B" has 75% ssing anchor bolt der "B" anchor bo der "C" anchor bo	anchor bolts. section loss ts with two (2 blt is bent to t olt is broken	to the anchor bo) missing at Girc the south. (Photo 107).	der "C" and	21.00	0.00
	 SPAN 8: At Pier 7, the sout PIER 11: All girders are mis shim plates (Photos 11 	sing anchor				amination to		
			OLIANTITY		_		-	



Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

	Driven to get you there	Bridge	Condition	Poor		Inspectior	Inspection Date	
332	Timb Bridge Railing	3	790.00	ft	0.00	0.00	0.00	790.00

The timber hand railing and timber access walk is severely deteriorated throughout the south side of the tracks for Spans 1 to 5, the north side of the bridge in Spans 8 to 12, and along the north side of the southeast spur track. The majority of the rails and posts are missing and there are loose posts and members throughout (Photo 16).

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY	QTY	QTY	QTY			
	majority of the rails an throughout (Photo 16)	d posts are r		,	0						
1140	The timber hand railing and timber access walk is severely deteriorated throughout. The										
1140	Decay/Section Loss	3	790.00	ft	0.00	0.00	0.00	790.00			

ELEM		ENV	QUANTITY	UNITS	CS 1	CS 2	CS 3	CS 4
8107	Steel Opn Girder/Beam ENDS	i 3	570.00	ft	0.00	514.00	56.00	0.00

The top flanges of the girders have scattered areas of rivet head loss up to 100% (Photo 20). There are areas of peeling paint and moderate to heavy rusting throughout the girders. The bottom flanges and lower webs of the girders typically have scattered moderate to heavy steel delamination that measures up to 6" high. There are scattered vertical stiffeners that have 100% section loss at the lower ends near the bottom flange (Photos 29, 32 & 44). See the attached document labeled "126001_Element 107 Steel Open Girder.pdf" for additional comments and conditions.

1000	Corrosion	3	570.00	ft	0.00	514.00	56.00	0.00

The top flange of the girders have scattered areas of rivet head loss measuring up to 100% (Photo 20). There are areas of peeling paint and moderate to heavy rusting throughout the girders. The bottom flanges and lower webs of the girders typically have scattered moderate to heavy steel delamination that measures up to 6" high. There are scattered vertical stiffeners that have 100% section loss at the lower ends near the bottom flange (Photos 29, 32 & 44).

See the attached document labeled "126001_Element 107 Steel Open Girder.pdf" for additional comments and conditions.

ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
8218	Backwall, All Types	3	65.00	ft	65.00	0.00	0.00	0.00

368	Graffiti	3	200.00	ft	0.00	0.00	0.00	200.00
	Random areas exhibit he	eavy graffiti	(Photo 106).					
LEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY	QTY	QTY	QTY
					CS 1	CS 2	CS 3	CS 4
45	Stone Masonry Wingwall	3	40.00	ft	0.00	40.00	0.00	0.00

	8368	Graffiti	3	40.00	ft	0.00	0.00	40.00	0.00
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The stone masonry wingwalls have heavy graffiti (Photo 104).



126001 Crook Point Bascule Bridge

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

	Driven to get you there	Bridge Condition Poor				Inspection Date		07/09/2021	
ELEM	ELEMENT NAME	ENV	QUANTITY	UNITS	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4	
8370	Steel Diaphragms	3	350.00	each	0.00	328.00	22.00	0.00	

	There are steel cross scattered areas of p and minor steel dela	oitting throughout.	There are sever	al areas whe	re the connect	ion plates have mod	•	
1000	Corrosion	3	328.00	each	0.00	328.00	0.00	0.00



126001 Crook Point Bascule Bridge

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

Bridge Condition Poor

SPANS 1-4: Random diaphragm vertical and horizontal connection plates and exhibit areas of 100% section loss with heavy accumulation of steel delamination debris (Photos 25 & 26).

SPAN 5:

Bay "A":

•At Girder "A", Diaphragm 5, the lower horizontal connection plate has two (2) holes at the west side that measure 5" long x 2" wide and 3" long x 2" wide and a hole at the east side that measures up to 6" long x 2" wide.

•The east diagonal member at the bottom of Diaphragm 5 has a 2" in diameter hole, the center horizontal member has a 2" in diameter hole, and the west lower diagonal member at Diaphragm 5 has a 5" long x full height hole.

Bay "C":

• The lower diagonal bracing between Diaphragms 3 & 4 at Diaphragm 3 along Girder "C" has a hole measuring 12" long x full height.

• The lower horizontal connection plate at Diaphragm 4 along the south face of Girder "C" has two (2) holes measuring 8" long x full width and 6" high x 3" long.

The lower connection plates of Diaphragm 4 at the north face of Girder "D" have heavy rusting, steel delamination and a hole measuring 2" in diameter at Girder "C" (Photo 112).
At Diaphragm 5, there is 100% section loss to the bottom horizontal leg measuring full width x full length (Photo 113) and the vertical connection plate at Girder "C" that measures 2" high x 3" wide.

• The lower connection plate of Diaphragm 5 at Girder "C" has a hole measuring full length x 8" high. The upper horizontal connection plate has a hole that measures 14" long x full width.

• The top plate of Diaphragm 5 at Girder "D" has a hole at the east side measuring up to full length x up to full width and is paper thin on the west side (Photo 114).

SPAN 8:

• The bottom bracing at Pier 7 along Girder "A" in Bay "A" has a hole at the lower diagonal bracing measuring 2" long x 1" high.

SPAN 9:

Bay "A":

• The lower horizontal member at Diaphragm 9 along the north face of Girder "B" has a 3" long x 2" wide hole and heavy rivet head loss at the connection plate (Photo 115).

• There is a missing lower vertical connection plate of Diaphragm 3 at the south face of Girder "A".

• At the south face of Girder "A", Diaphragm 10, the lower diagonal connection plate has two (2) holes with adjacent section loss measuring up to 3" long by 1" wide.

Bay "C":

• The lower horizontal angles in Bay "C" typically exhibit 1/8" deep section loss.

SPAN 10:

Bay "D"

• At Diaphragm 4 along the south face of Girder "D", there is a hole measuring 1" wide x $\frac{1}{2}$ " long at the horizontal member (Photo 116).

SPAN 11:

Bay "C":

At the north face of Girder "D", Diaphragm 1, there is 100% section loss of the connection plate around the diagonal diaphragm member measuring full length x full width (Photo 44).
At Diaphragm 7 along the north face of Girder "D", there is a hole in the web stiffener plate measuring 4" high x 2" wide and to the horizontal connection plate measuring 3" wide x 2" long.

 \bullet At Diaphragm 7, the bottom horizontal connection plate on the east side has a hole 1" wide x 2" long.

Bay "D":

• The lower horizontal connection plate at Diaphragm 5 along the south face of Girder "D"



126001 **Crook Point Bascule Bridge**

AI ENGINEERS Inspected By Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

Bridge Condition Poor

has a hole measuring 1'	' in diameter (Photo 42).
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LEM	 The diagonal member distorted and bent wes SPAN 5: Bay "A": The top brace member The top brace of Diap ELEMENT NAME	t for Diaphrag er between Dia	aphragms 2 and		down 1/2". QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
	distorted and bent wes SPAN 5: Bay "A": • The top brace membe	t for Diaphrag er between Dia	aphragms 2 and		down 1/2".			
	-		m 11.					
	SPAN 4: Bay "A": • The majority of the to Bay "C": • The diagonal cross br • At the top of Diaphrag	acing membe m 10, the cor	r at Diaphragm inection plate ai	11 is bent do nd bracings r	wnward. nembers are dis			
	SPAN 3: Bay "C": • The top cross membe • The lower horizontal r • The top connection pl	er between Dia nember and v	aphragms 1 & 2 ertical connecti	is distorted. on plate at D				
	SPAN 2: Bay "C": • The cross member be	etween Diaphr	agms 10 & 11 is	s distorted				
1900	Diaphragms 12 and 13 Distortion	. 3	22.00	each	0.00	0.00	22.00	0.00
	Bay "G": • At Diaphragms 5 and to the east at the base. • Diaphragms 11, 12, a	-						
	Bays "C to I": • The lower lateral conr edge loss up to 2" wide • The adjacent bottom).				scattered		
	Bay "A": • At Diaphragm 10 alon measuring full length x	•		it the lower h	orizontal connec	ction plate		
	SPAN 12:							

There are scattered areas of loose and missing bolts and rivets throughout the bridge. SPAN 2: At Diaphragm 2 of Girder "A" on the east side, there is one (1) popped rivet and one (1) rivet with 100% section loss. The adjacent rivets have 50% section loss. SPAN 6: The base of the northwest column has one (1) of four (4) popped rivets at the north flange. The top flange of Floorbeam "C" has ten (10) scattered popped rivets along the top face. SPAN 7: The top of the counterweight at the south side of the north extension has two (2) popped rivets above the crack in the plate (Photo 73). The top face of the counterweight along the west edge approximately 5.0' from the south extension has three (3) popped rivets on the top face and one (1) popped rivet on the west face (Photo 80). Member U3 (North Truss) – U4 (South Truss) at center – The member has one (1) popped rivet due to pack rust (Photo 68). Panel Point U4 (North Truss) - The top lateral brace connection to the North Truss on the east side has 1 of 6 popped rivets and 5/8" thick pack rust. Panel Point U5 (North Truss) – The U5 (North Truss) – U6 (South Truss) lateral brace top connection has 1 of 5 popped rivets (Photo 69). Panel 5, Stringer "D", at Floorbeam 4 there are two (2) popped rivets at the top flange bracing connection plate. Panel 6, Stringer "D" at Floorbeam "F" has three (3) popped rivets at the Northeast corner diagonal connection plate. Panel 7, Stringer "D" near Floorbeam 7 has a popped rivet at the second from the west along the north side.



Bridge Condition Poor

126001 Crook Point Bascule Bridge

Inspected By AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

EquipmentAerial LiftIBoatIUnderbridgeinspvelIScaffoldingIBoesemansChairIWadersIRail Mount ElliotI	Traffic Setup Req N	Speed Limit Prep Time Crew Slize 1 Under Insp Vehicl Traffic Control Tim Mile Post	le Time				
Crash TruckIAir MonitorILadderIBucket TruckI	Night Insp Req N	Crew Days Io Time Report Time IA Bucket Truck Tim					
RiggingImage: ClimbingRail Mount Bucket TruckImage: ClimbingLight TowerImage: Climbing	Site Access Notes Access to the bridge can be found along the east and west embankments. Gano Park off Power Street is located on the west side of the Seekonk River and inspection vehicles can be parked in the parking lot, adjacent to the baseball field. There is an opening in a pedestrian walkway where the fence has been broken to allow access to the bridge on the west approach.						
Avg Curb Reveal North/East Avg Curb Reveal South/West		Telephone Sewer					
Posted Weight Limit		Cable	—				
0		Cable Oil					
Posted Weight Limit	□ -1						
Posted Weight Limit Posting Sign ? Post Signs Legible Post Sign Rec	 -1 -1	Oil Fire Alarm OH Lines Present					
Posted Weight Limit Posting Sign ? Post Signs Legible	-1	Oil Fire Alarm					
Posted Weight Limit Posting Sign ? Post Signs Legible Post Sign Rec Adv Min Vert Clear Sign	-1 -1 -1	Oil Fire Alarm OH Lines Present Water					



4/24/2023

RIDOT Bridge Inspection Report

126001 **Crook Point Bascule Bridge**

Inspected By

AI ENGINEERS Inspector: CHRISTOPHER KOLASA Inspection Date 07/09/2021

Bridge Condition Poor
Bat and Bird Observations

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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				