

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B08242021-2	
Date: 8/12/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-066 - COLLIERS HARBOUR BRIDGE		
Route:		Overall Length:	14.5 m
Year Built:	1970	Est: No	Overall Width: 0 m
Year Last Rehab.:		Est: No	Roadway Width: 0 m
Region:	AVALON PENINSULA	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	0 m
Type of Structure:	01 - AASH to Girder	Max Depth of N.W.L.:	0 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	02 - Concrete Rail	Span No.:	Length
Roadway Surface:	02 - Asphalt	1	8.6
Alignment Vertical:	01 - Good	2	0
Alignment Horizontal:	02 - Adequate	3	0
Restrictions:	No	6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	P3 - Poor
		Bearing Seat:	I - Inapplicable
Comments:	- Some disintegration to all creep blocks with vegetation growth. - Northwest exterior bearing has a large spall, undermining the creep block (P3). - Southwest bearing has a large spall as well (P3). - Upstream exterior and all interior bearings ok (F1). - North abutment has mild erosion to face of footing with light cracking with efflorescence on the northeast end wall & ~1m under the structure (F1). - South abutment has a possible cold joint sloping to footing starting to open. Deterioration to footing construction joint on southwest end. - Monitor exterior bearing spalls (P3), F1 remainder of substructure.		
SUPERSTRUCTURE			
Condition:	P1 - Poor	Expansion Joints:	U - Uninspectable
Comments:	- Expansion joints not inspectable. - Chaulking missing through curbs causing accelerated deterioration below. - Exterior double tee has exposed pre-stressing stands with one broken. Spall occurs from bearing seat out ~1.5m. - Most double tees have rebar staining or showing stirrups (low cover) F1. - Second and third double tee in from		

the west side has a leak between pre-cast panel sections. This leak is causing accelerated deterioration to these double tees. These double tees in particular have medium longitudinal cracks with efflorescence, likely about to become spalls. - On the underside of the deck, areas around deck drains have medium sized circumferential spalls with exposed reinforcement. Between double tees on the underside of the deck, rebar grid starting to show in some locations. P1 for mentioned double tees, F1 remainder of superstructure.

DECK

Condition:	F1 - Fair	Curbs:	F1 - Fair
Hand Rail:	P1 - Poor	Roadway Condition:	F1 - Fair
Approach Rail:	U - Uninspectable		
Comments:	- Curbs covered in gravels. Suspect mild deterioration but good. - No approach/exit rail, no hazard markers. - Concrete handrail has mild spalling with exposed rebar (P3). - Asphalt has medium-heavy cracking with potholes. - Upstream fascia has light weathering (F2). - Downstream fascia has light weathering with mild-narrow cracks.		

HYDROLOGY

Water Velocity:	1.0 m/s	Ice Problem:	N - No Problem
Water Depth:	0.8 m	Scour Problem:	N - No Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Rip-rap missing on northeast abutment corners. - Erosion along northwest end/wing wall from deck runoff.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2023	Replacement Year:	2040
Antic. Rehab. Cost:	\$150000	Replacement Cost:	\$1500000
Recommendations:	- Remove gravel from curbs, install chaulking through curbs, replace rip-rap as needed, place concrete run-off ditch along northwest end/wing wall, repair all concrete defects, re-surface structure, install approach/exit rails complete with hazard markers, repair leaks between double tee precast panels.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- A rehab within the next couple of years could greatly extend the life of this structure. It is in good condition but needs some work. - Waterline tied to upstream side of structure. Hazards: low traffic, steep slopes, fast running water. - P1 exterior double tees, P3 exterior bearing seat spalls, F1 remainder.		

LEGEND:

Condition Definitions:

1 - *Good - [discontinued code].
 2 - *Fair - [discontinued code].
 3 - *Poor - [discontinued code].
 4 - *Unsafe - [discontinued code].
 G - Good.

F2 - Fair.
 F1 - Fair.
 P3 - Poor.
 P1 - Poor.
 P - Poor.

C - Unsafe (Closed to Public).
 U - Uninspectable.
 I - Inapplicable.

Problem Definitions:

N - No Problem.
 P - Possible Problem.
 K - Known Problem.
 NA - Not Applicable.

Category Definitions:

Maint. - Maintenance.
 Eng. - Engineering.
 Office - Bridge Office.

PHOTO GUIDELINES:

Inspection Photos:

Please provide photos using guidelines below:

- Any item which inspector sees should be documented by photograph
- All items noted above as being P3, P1, P, or C
- Any evidence of known ice, scour, debris, waterway problems

INSPECTION PHOTOS