

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B08242022-2</b>	
<b>Date:</b> 7/28/2022	<b>Inspected By:</b> M Button	<b>Category:</b> Office - Bridge Office	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	TCH-074 - MORRIS BROOK BRIDGE		
<b>Route:</b>		<b>Overall Length:</b>	18.9 m
<b>Year Built:</b>	1970	<b>Est:</b> No	<b>Overall Width:</b> 13.9 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 12.3 m
<b>Region:</b>	WEST COAST/NORTHERN		<b>Sidewalk Width:</b> 0 m
<b>Jurisdiction:</b>	Provincial	<b>Clearance to R.D. or N.W.L.:</b>	3.7 m
<b>Type of Structure:</b>	03 - Reinforced Concrete Beam/Slab		<b>Max Depth of N.W.L.:</b> 0 m
<b>Purpose of Structure:</b>	03 - Over Navigable Waters		<b>Spans:</b>
<b>Type of Handrail:</b>	04 - Steel Rail		<u>Span No.:</u> <u>Length</u> <u>Span No.:</u> <u>Length</u>
<b>Roadway Surface:</b>	02 - Asphalt	<b>1</b>	12 <b>4</b> 0
<b>Alignment Vertical:</b>	02 - Adequate	<b>2</b>	0 <b>5</b> 0
<b>Alignment Horizontal:</b>	01 - Good	<b>3</b>	0 <b>6</b> 0
<b>Restrictions:</b>	No		
<b>BRIDGE PHOTOS</b>			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	F1 - Fair	<b>Bearings:</b>	U - Uninspectable
		<b>Bearing Seat:</b>	F1 - Fair
<b>Comments:</b>	- Both abutments have efflorescent leachate build up over the face in some areas, F1. - Wingwalls have isolated spalls with moderate map cracking leaching efflorescence. Bearing seat and bearings generally too high for inspection. Efflorescent material leaching under double tees along the bearing seats.		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	P1 - Poor	<b>Expansion Joints:</b>	P1 - Poor
<b>Comments:</b>	- P3 to P1 all deck soffit joints and likely sections of the deck itself. Double tees and beams, F2. - Interior concrete beams in good condition. Double tees in fair condition. - Double tee soffit has rebar grid shaped rust stains around deck drains. - Main deck soffit around rectangular concrete beams in fair to good condition. - Joint between double tees leaching efflorescence on both the upstream and downstream sides. - Joint between double tees and regular concrete deck on both the upstream and downstream sides are severely leaching efflorescent material with various spalls along the joint exposing reinforcement. - Both fascias have isolated mild spalling and the longitudinal joint between the double tees and curb/cast-in-place deck on the exteriors has moderate efflorescent leachate. - No visible signs of expansion joints above, likely paved over. Efflorescent deposits visible behind concrete beams on the ballast walls, P1.		
<b>DECK</b>			
<b>Condition:</b>	P1 - Poor	<b>Curbs:</b>	F1 - Fair
<b>Hand Rail:</b>	F2 - Fair	<b>Roadway Condition:</b>	F1 - Fair
<b>Approach Rail:</b>	G - Good		

**Comments:** - Asphalt has moderate transverse cracks at the joint to the structure. Asphalt has deep rutting and various potholes at the structures upstream and downstream extensions, P3. Suspect the deterioration of the concrete deck in the area over the joint is causing the rutting, P1. - Curbs have isolated spalls, and cracks and are covered in gravels. Vegetation growing between asphalt and curb. - Structure rail has various dents and scrapes, F1. - Guiderail in good condition, connected to end blocks, has regulation post spacing and is missing all hazard markers. Guiderail heavily overgrown in the eastbound approach.

**HYDROLOGY**

<b>Water Velocity:</b>	0.3 m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	0.3 m	<b>Scour Problem:</b>	N - No Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>	- No comment.		

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>	2023	<b>Replacement Year:</b>	2030
<b>Antic. Rehab. Cost:</b>	\$250,000	<b>Replacement Cost:</b>	\$2,000,000
<b>Recommendations:</b>	- Structure needs a major rehab to extend life. - Demolish the deck concrete around the upstream and downstream extensions, re-pour and waterproof the area and repave the structure. Potentially replace the entire deck. - Complete concrete repairs to wingwalls. - Install hazard markers. Remove all vegetation. *Replacement year assumes above work not complete*.		

**OBSERVATIONS**

<b>Overall Condition:</b>	P3 - Poor	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	- P3 to P1 all deck joints and likely sections of the deck. Double tees and beams, F2. Abutment, F1. - Two double tee sections on the upstream and downstream sides. Rectangular concrete beams in the middle. Bridge needs a major rehab to extend life. - Watch out for traffic on TCH, do not cross the road.		

**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 feels 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**