

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B12072021-6	
Date: 10/28/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	5-069 - BEAVER BROOK BRIDGE		
Route:	510	Overall Length:	40.6 m
Year Built:	2002	Est: No	Overall Width: 12.3 m
Year Last Rehab.:		Est: No	Roadway Width: 11.1 m
Region:	LABRADOR	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	6 m
Type of Structure:	05 - Pre-stressed Concrete Slab	Max Depth of N.W.L.:	2 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	01 - Aluminum Rail	<u>Span No.:</u>	<u>Length</u>
Roadway Surface:	01 - Concrete	1	20
Alignment Vertical:	01 - Good	2	0
Alignment Horizontal:	01 - Good	3	0
Restrictions:	No	<u>Span No.:</u>	<u>Length</u>
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	G - Good	Bearings:	F2 - Fair
		Bearing Seat:	F2 - Fair
Comments:	- Wingwalls in good condition. North abutment has small erosion holes on the northeast corner of the structure at the footing to abutment CJ, F2. Remainder of abutment concrete in good condition. - Bearing seats and bearings too high for inspection and assumed to be in good condition.		
SUPERSTRUCTURE			
Condition:	G - Good	Expansion Joints:	F2 - Fair
Comments:	- Expansion joint seals full of gravel, no water seen on bearing seats. Embedded steel starting to show through surface concrete. Recommend replacing rubber seals with asphaltic plug joints as structure is on a gravel road. - Six girders and interior braces have moderate corrosion to all surfaces. Girder ends and braces over abutments are painted and have no corrosion. Bottom of deck concrete in excellent condition. Superstructure G.		
DECK			

Condition:	G - Good	Curbs:	G - Good
Hand Rail:	P3 - Poor	Roadway Condition:	G - Good
Approach Rail:	P3 - Poor		
Comments:	- Approach/exit guiderail has lost corrugation in most sections, many posts are spilt/damaged/cracked off, are connected to end blocks, complete with hazard markers and do not have collision dampening posts prior to end blocks. - Approach/exits are gravel road and in good condition (Dynamic) road was just graded. - No asphalt, concrete deck in good condition. No deck drains. - Curbs in good condition. - Handrails have tears from the flyer on the southwest corner. East side has several area of severe denting, P3.		

HYDROLOGY

Water Velocity:	0.5 m/s	Ice Problem:	N - No Problem
Water Depth:	0.5 m	Scour Problem:	N - No Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- Recommend the placement of rip-rap on riverside abutment faces. Upstream and downstream rip-rap in good condition and has good placement. Water level appears to rise at least 2m during flood events based on abutment concrete stains. No scour under footings, felt along bottom with a pole.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2026	Replacement Year:	2070
Antic. Rehab. Cost:	\$40,000	Replacement Cost:	\$1,800,000
Recommendations:	- 2022 - Clean expansion joint seals (Maintenance). - 2026 - Replace handrail in isolated sections and replace all guiderail. Recommend replacing rubber seals with asphaltic plug joints as structure is on a gravel road. Recommend the installation of deck drains. Place rip-rap on riverside abutment faces.		

OBSERVATIONS

Overall Condition:	G - Good	Requires Further Inspection:	No
Additional Observations:	- Hazards steep slopes, and mild traffic.		

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