

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B12142021-4</b>	
<b>Date:</b> 10/31/2021	<b>Inspected By:</b> Mike Button	<b>Category:</b> Office - Bridge Office	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	5-031 - OSSOKMANUAN RESERVOIR BRIDGE		
<b>Route:</b>	500	<b>Overall Length:</b>	156 m
<b>Year Built:</b>	1992	<b>Est:</b> No	<b>Overall Width:</b> 10.3 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 8.5 m
<b>Region:</b>	LABRADOR	<b>Sidewalk Width:</b>	0 m
<b>Jurisdiction:</b>	Provincial	<b>Clearance to R.D. or N.W.L.:</b>	0 m
<b>Type of Structure:</b>	08 - Steel Bridge	<b>Max Depth of N.W.L.:</b>	13 m
<b>Purpose of Structure:</b>	03 - Over Navigable Waters	<b>Spans:</b>	
<b>Type of Handrail:</b>	01 - Aluminum Rail	<u>Span No.:</u>	<u>Length</u>
<b>Roadway Surface:</b>	01 - Concrete	<u>Span No.:</u>	<u>Length</u>
<b>Alignment Vertical:</b>	01 - Good	1	57
<b>Alignment Horizontal:</b>	01 - Good	2	0
<b>Restrictions:</b>	No	3	0
		4	0
		5	0
		6	0
<b>BRIDGE PHOTOS</b>			
			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	G - Good	<b>Bearings:</b>	F2 - Fair
		<b>Bearing Seat:</b>	F2 - Fair
<b>Comments:</b>	- All wingwalls, and southwest abutment concrete, bearings, bearing seats in good condition, G. - Northeast abutment has mild map cracking to entire bearing seat with light spalling to bearing's grout pads. Bearings have light to moderate corrosion. Abutment back wall has moderate cracking with light efflorescence. Riverside face concrete is in good condition, F2. - No access to piers, viewed from the shoreline with binoculars only. Piers have rust staining on their bearing seats, leaching over the pier faces and light concrete erosion at the waterline exposing aggregates. Piers assumed to be in fair condition based on observations.		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	G - Good	<b>Expansion Joints:</b>	P1 - Poor
<b>Comments:</b>	- The northeast expansion joint has severe spalling behind the box girders on the bottom of the deck exposing and undermining expansion joint components. At deck level, sections of the steel embedded plate has been torn away and have torn seals, P1. The southwest top of deck concrete around the expansion joint has hairline to		

moderate width transverse cracks. Expansion joint in fair condition, F2. No or cracked chaulking in exterior curb expansion gaps. Gaps are filled with rigid Styrofoam everywhere except on the east corner. - Bottom of deck concrete in good condition. Inspection conducted from the shoreline only. No visibility under the deck to inspect the pier to pier span. - Both fascia's have light map cracking throughout. - Two box girders and braces have mild corrosion and are in good condition. - Bottom of deck concrete in good condition. Inspection conducted from the shoreline only. No visibility under the deck to inspect the pier to pier span.

**DECK**

<b>Condition:</b>	G - Good	<b>Curbs:</b>	F2 - Fair
<b>Hand Rail:</b>	P3 - Poor	<b>Roadway Condition:</b>	F1 - Fair
<b>Approach Rail:</b>	F1 - Fair		
<b>Comments:</b>	- Approach/exit rails have several damaged rail sections. Rails have also lost corrugation on the east exit. Many posts are split throughout. Rails are connected to end blocks but have numerous missing bolts, are complete with hazard markers, and do not have collision dampening posts prior to end blocks. Approaches beginning to be overgrown by alders. - End blocks have mild map cracking and small spalls to the tops of some. - Asphalt in fair condition on the approach to the structure, wide transverse cracks in asphalt at the entrance to both approach slabs. No asphalt over structure, and approaches slabs are paved. - Deck concrete in fair condition, aggregate colors showing throughout with hairline cracking in isolated locations. Approach slab joint with main deck opening on both sides of the bridge. - Roadside curbs have mild spalls at structure approaches. Chaulking missing atop most to all curb joints. - Structure handrail has sections throughout with heavy damage. Numerous posts are twisted/cracked and have disconnected rails. Rails severely bent in several locations.		

**HYDROLOGY**

<b>Water Velocity:</b>	Reservoir m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	Deep m	<b>Scour Problem:</b>	N - No Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>	- Area should have limited to no current. Do not suspect scour on piers. Both abutments heavily protected by rip-rap.		

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>	2022	<b>Replacement Year:</b>	2060
<b>Antic. Rehab. Cost:</b>	\$100,000	<b>Replacement Cost:</b>	\$5,000,000
<b>Recommendations:</b>	- Replace northeast expansion joint. Replace rigid styfoam/backing material on east exterior curb expansion joint gap. Remove and re-chaulk all exterior curb expansion gaps. Chaulk top of roadside curb expansion gaps. Seal asphalt cracks at entrances to approach slabs. Seal concrete joints between both approach slabs and deck. Replace various guiderail and posts. Install collision dampening posts and connect guiderail to end blocks. Replace numerous handrail posts and sections of rail. Replace Ossokmanuan Bridge Sign.		

**OBSERVATIONS**

<b>Overall Condition:</b>	F2 - Fair	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	- Hazards mild traffic, slopes and traversing rip-rap. Not all box girder confined spaces are have locks. Bridge inspected from shoreline only with no visibility of the pier to pier span.		

**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 F3, P1, P3, or C
  - Any evidence of known ice, scour, debris, waterway problems

**INSPECTION PHOTOS**