

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B11232021-2</b>	
<b>Date:</b> 10/26/2021	<b>Inspected By:</b> Mike Button	<b>Category:</b> Office - Bridge Office	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	5-008 - LANSE AU LOUP BROOK BRIDGE		
<b>Route:</b>		<b>Overall Length:</b>	36.5 m
<b>Year Built:</b>	1970	<b>Est:</b> No	<b>Overall Width:</b> 8.7 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 7.4 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>	11.3 m
<b>Type of Structure:</b>	03 - Reinforced Concrete Beam/Slab	<b>Max Depth of N.W.L.:</b>	0.4 m
<b>Purpose of Structure:</b>	04 - Over Non-Navigable Waters	<b>Spans:</b>	
<b>Type of Handrail:</b>	04 - Steel Rail	<u>Span No.:</u>	<u>Length</u>
<b>Roadway Surface:</b>	01 - Concrete	1	25.5
<b>Alignment Vertical:</b>	01 - Good	2	0
<b>Alignment Horizontal:</b>	01 - Good	3	0
<b>Restrictions:</b>	No	4	0
		5	0
		6	0
<b>BRIDGE PHOTOS</b>			
			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	F2 - Fair	<b>Bearings:</b>	U - Uninspectable
		<b>Bearing Seat:</b>	F2 - Fair
<b>Comments:</b>	- West abutment has a medium wide vertical crack around the mid-point of the face. Northwest abutment back wall area has moderate disintegration to the corner, back wall and side of wingwall, P3. All wingwalls in fair condition otherwise. - East abutment in fair condition. Substructure F2 overall. - Bearings too high for inspection. Bearing seat edges appear in fair condition from below.		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	F2 - Fair	<b>Expansion Joints:</b>	P3 - Poor
<b>Comments:</b>	- West expansion joint and curb is leaking causing damage to the concrete below. East expansion joint appears to be in fair condition with no visible sign of leakage. - Girders in fair condition with transverse reinforcement exposed on the bottom flange with moderate corrosion directly above the bearing seat in some locations. Bottom of deck in fair condition with some wet/damp locations at the girder attachment, indicating the start of water migration through a crack in the deck, F2.		

<b>DECK</b>			
<b>Condition:</b>	F2 - Fair	<b>Curbs:</b>	P3 - Poor
<b>Hand Rail:</b>	F2 - Fair	<b>Roadway Condition:</b>	F1 - Fair
<b>Approach Rail:</b>	F2 - Fair		
<b>Comments:</b>	- Approach rails in fair condition, connected to end blocks complete with end blocks. No energy dampening posts prior to end blocks. End blocks have light spalling at the tops on the roadway side, likely flyer damage. - Roadway curbs have light disintegration to reinforcement in isolated locations. - Asphalt in fair condition on approaches with moderate potholes, cracking and rutting in the asphalt prior to the bridge deck. Asphalt/gravels on approaches have settled and is causing cracking immediately prior to the bridge. No asphalt on deck. Concrete surface has aggregate showing throughout indicating some surface wear. Light sand build up against curbs. - Structure handrail in fair condition. - South fascia/exterior curb construction joint starting to open up. Mild spalling southeast curb around the expansion joint and additional medium spalls about 2m from the expansion joint towards the west. Southwest curb west of the expansion joint has moderate disintegration to the curb/wingwall construction joint and immediately below, likely caused by water/chloride migration between the deck and curb. - Leakage observed around deck drain pipe sleeves through the deck concrete causing mild spalling and rust staining.		
<b>HYDROLOGY</b>			
<b>Water Velocity:</b>	Fast 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>	- Abutments out of water, water has no impact.		
<b>REPLACEMENT/REHABILITATION</b>			
<b>Next Rehab. Date:</b>	2024	<b>Replacement Year:</b>	2045
<b>Antic. Rehab. Cost:</b>	\$50,000	<b>Replacement Cost:</b>	\$1,800,000
<b>Recommendations:</b>	- Install extra posts prior to end blocks. Repair concrete defects around expansion joints. Replace west expansion joint and re-chalk curbs within 3 years to prevent excessive damage to west abutment. - Recommend re-grading the first 2m of both approaches to correct the granular base for the asphalt. Recommend waterproofing and placing a layer of asphalt over the deck.		
<b>OBSERVATIONS</b>			
<b>Overall Condition:</b>	F2 - Fair	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	- Traffic control required for inspection. Hazards; moderate traffic, steep slopes and travelling over large rip rap.		
<b>LEGEND:</b>			
<b>Condition Definitions:</b>		<b>Problem Definitions:</b>	
1 - *Good - [discontinued code].	F2 - Fair.	C - Unsafe (Closed to Public).	N - No Problem.
2 - *Fair - [discontinued code].	F1 - Fair.	U - Uninspectable.	P - Possible Problem.
3 - *Poor - [discontinued code].	P3 - Poor.	I - Inapplicable.	K - Known Problem.
4 - *Unsafe - [discontinued code].	P1 - Poor.		NA - Not Applicable.
G - Good.	P - Poor.		
<b>Category Definitions:</b>			
		Maint. - Maintenance.	
		Eng. - Engineering.	
		Office - Bridge Office.	
<b>PHOTO GUIDELINES:</b>			
<b>Inspection Photos:</b>			
Please provide photos using guidelines below:			
<ul style="list-style-type: none"> <li>● Any item which inspector feels should be documented by photograph</li> <li>● All items noted above as being P3, P1, P, or C</li> <li>● Any evidence of known ice, scour, debris, waterway problems</li> </ul>			
<b>INSPECTION PHOTOS</b>			