

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	<b>BRIDGE INSPECTION REPORT</b> <b>B05022011-11</b>	
<b>Date:</b> 3/4/2011	<b>Inspected By:</b> Chris Lyver	<b>Category:</b> Eng. - Engineering	
<b>BRIDGE INFORMATION</b>			
<b>Site:</b>	1-169 - THREE MILE BRIDGE		
<b>Route:</b>	81	<b>Overall Length:</b>	11.7 m
<b>Year Built:</b>	1940	<b>Est:</b> No	<b>Overall Width:</b> 5.9 m
<b>Year Last Rehab.:</b>		<b>Est:</b> No	<b>Roadway Width:</b> 4.8 m
<b>Region:</b>	AVALON PENINSULA	<b>Sidewalk Width:</b>	0 m
<b>Jurisdiction:</b>	Provincial	<b>Clearance to R.D. or N.W.L.:</b>	1.2 m
<b>Type of Structure:</b>	04 - Rigid Frame	<b>Max Depth of N.W.L.:</b>	0.3 m
<b>Purpose of Structure:</b>	04 - Over Non-Navigable Waters		
<b>Type of Handrail:</b>	02 - Concrete Rail	<b>Spans:</b>	
<b>Roadway Surface:</b>	01 - Concrete	<u>Span No.:</u>	<u>Length</u>
<b>Alignment Vertical:</b>	02 - Adequate	1	7.4
<b>Alignment Horizontal:</b>	02 - Adequate	2	0
<b>Restrictions:</b>	Yes	3	0
<b>Describe Restrictions:</b>	1 lane traffic (possibility of 2 cars but with little room to spare). Alignment vertical: Structure rises up at bottom of vertical curve. Alignment horizontal: Structure on short kinked tangent between 2 horizontal curves.		
<b>BRIDGE PHOTOS</b>			
			
<b>SUBSTRUCTURE</b>			
<b>Condition:</b>	P1 - Poor	<b>Bearings:</b>	F1 - Fair
		<b>Bearing Seat:</b>	F1 - Fair
<b>Comments:</b>	- P-1, tops south wings - F-1, remainder. - Assumed condition of buried and submerged reinforcement concrete abutment footings. - Medium/wide vertical and horizontal cracks with light efflorescence deposits in 4 wingwalls. - Medium spalling to top of abutment/wingwall at SW corner. - Medium spalling to NW corner of north abutment. - No visible signs of bearings (possibly asphalt impregnated board).		
<b>SUPERSTRUCTURE</b>			
<b>Condition:</b>	F1 - Fair	<b>Expansion Joints:</b>	I - Inapplicable
<b>Comments:</b>	- No visible signs of expansion joints.		
<b>DECK</b>			

<b>Condition:</b>	P3 - Poor	<b>Curbs:</b>	I - Inapplicable
<b>Hand Rail:</b>	P1 - Poor	<b>Roadway Condition:</b>	I - Inapplicable
<b>Approach Rail:</b>	I - Inapplicable		
<b>Comments:</b>	-P-1, surface. - F-1, soffit. - Narrow transverse cracks with light efflorescence deposits in deck soffit. - Numerous transverse flow lines in deck soffit. - Top sections of solid concrete hand rail missing at NE, SW and SE ends. - Light spalling with medium horizontal/vertical cracks on solid concrete hand rails. - Assume med. spalling still continuing on partially exposed deck (currently snow covered). - No hazard marker at SE end. - Existing hazard markers aging or painted over. - Tops of SE/SW wingwall retaining walls cracked off and tipping out. - Solid concrete handrails extend below deck approximately 100mm. - Medium delamination/spalling with medium corrosion to exposed reinforcement in soffit of solid deck hand rails. - Numerous potholes on gravel approaches and in gravel on deck.		

**HYDROLOGY**

<b>Water Velocity:</b>	0.3 m/s	<b>Ice Problem:</b>	N - No Problem
<b>Water Depth:</b>	0.4 m	<b>Scour Problem:</b>	N - No Problem
<b>Waterway:</b>	01 - Adequate	<b>Debris Problem:</b>	N - No Problem
<b>Comments:</b>			

**REPLACEMENT/REHABILITATION**

<b>Next Rehab. Date:</b>	2011	<b>Replacement Year:</b>	2025
<b>Antic. Rehab. Cost:</b>	\$50000	<b>Replacement Cost:</b>	\$300000
<b>Recommendations:</b>	- Repair hand rails, south wingwall retaining walls and deck surface. - Install short sections of approach/exit guide rail complete with hazard markers. - In the interim, install 4 new hazard markers to ends of concrete handrail (maintenance).		

**OBSERVATIONS**

<b>Overall Condition:</b>	P1 - Poor	<b>Requires Further Inspection:</b>	No
<b>Additional Observations:</b>	Overall Condition: P-1, deck surface, hand rails and tops of south wings. F-1, remainder. Additional Observations: - unchanged from '04 inspection. - considering its age structure remains in fair condition.		

**LEGEND:**

<b>Condition Definitions:</b>			<b>Problem Definitions:</b>	<b>Category Definitions:</b>
1 - *Good - [discontinued code].	F2 - Fair.	C - Unsafe (Closed to Public).	N - No Problem.	Maint. - Maintenance.
2 - *Fair - [discontinued code].	F1 - Fair.	U - Uninspectable.	P - Possible Problem.	Eng. - Engineering.
3 - *Poor - [discontinued code].	P3 - Poor.	I - Inapplicable.	K - Known Problem.	Office - Bridge Office.
4 - *Unsafe - [discontinued code].	P1 - Poor.		NA - Not Applicable.	
G - Good.	P - Poor.			

**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**