

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B01232024-1	
Date: 8/25/2023		Inspected By: M Button		Category: Office - Bridge Office	
BRIDGE INFORMATION					
Site:		TCH-106 - MANUEL'S RIVER SPILLWAY BRIDGE - R1			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	U - Uninspectable		
		Bearing Seat:	U - Uninspectable		
Comments:	- All abutment corners have severe sections of disintegration under the missing curb decks soffit areas. Wide spread map cracking extending in from all corners over the abutment faces. Suspected delaminations. - East abutment has moderate erosion at the waterline. West abutment has gouged horizontal voids likely from cold joints during initial construction. - Some scour found under both abutments but localized and small areas. River is also slamming into the southeast corner and scour is suspected in this area as well. - Wingwalls have moderate map cracking with efflorescence throughout. The Southwest wingwall has an area of severe disintegration where it meets the west abutment. Northeast wingwall is heaving outwards with visible earth pressure deformation. Wingwalls overall P3. - Bearing seat and bearings too high for inspection.				
SUPERSTRUCTURE					
Condition:	F1 - Fair	Expansion Joints:	P3 - Poor		
Comments:	- Deck soffit and monolithic concrete beams have hairline map cracking throughout and could potentially be a sign of alkaline silicate reactivity. Out of the five (5) beams, 2 have been provided additional support from each abutment via a steel corbel. - Exterior curb and deck soffit on all four structure corners have severe disintegration. - West side is expansion end and east side is fixed. No visible joint from above.				
DECK					
Condition:	F1 - Fair	Curbs:	P3 - Poor		
Hand Rail:	P3 - Poor	Roadway Condition:	F2 - Fair		
Approach Rail:	F1 - Fair				
Comments:	- Limited inspection due to high speed traffic. - North structure rail top rail missing with several torn and twisted posts. South side appears ok. - Curbs have wide cracks, localized areas of disintegration and spalling exposing reinforcement. - Guiderail in fair condition. - Both hazard markers missing. - Asphalt wearing surface in good condition.				
HYDROLOGY					
Water Velocity:	0.3 m/s	Ice Problem:	P - Possible Problem		
Water Depth:	0.3 m	Scour Problem:	K - Known Problem		
Waterway:	01 - Adequate	Debris Problem:	N - No Problem		
Comments:	- Some scour found under both abutments but localized and small areas. River is also slamming into the southeast corner and scour is suspected in this area as well (poor bridge alignment to river)				
REPLACEMENT/REHABILITATION					
Next Rehab. Date:	2028	Replacement Year:	2040		
Antic. Rehab. Cost:	\$200,000	Replacement Cost:	\$5,000,000		
Recommendations:	- Replace curbs and exterior deck soffit. - Repair abutment corners - Repair wingwalls - Replace structure rails				

OBSERVATIONS

Overall Condition:	F1 - Fair	Requires Further Inspection:	No
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Additional Observations: - Structure overall in fair condition. Abutment corners and wingwalls in poor condition.

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2024.