

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B07142022-2	
Date: 6/8/2022		Inspected By: M Button		Category: Office - Bridge Office	
BRIDGE INFORMATION					
Site:		3-015 - CHANGE ISLAND CAUSEWAY BRIDGE - R			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	U - Uninspectable		
		Bearing Seat:	U - Uninspectable		
Comments:	- North abutment has large/wide vertical cracks extending from the indentations in the concrete from repeated deck beam impacts, P1. The abutment also has light to moderate map cracking, especially on the corners. Loss of slope material around northwest corner from tidal action. - South abutment has large/wide vertical cracks extending from the indentations in the concrete from repeated deck beam impacts, P1. The abutment also has light to moderate map cracking. - Western wingwalls on both abutments have severe map cracking with light efflorescence over the entire surface. Many areas are hollow indicating delaminations, P3. Eastern wingwalls in fair condition with light cracking, F1. Both bearing seats are covered in gravels with no bearings under the deck beams. Main bearings uninspectable due to gravel on the bearing seats.				
SUPERSTRUCTURE					
Condition:	F1 - Fair	Expansion Joints:	I - Inapplicable		
Comments:	- Steel deck beams in fair condition overall with some have light to moderate corrosion. Deck beams on supported on both abutments have lost contact with bearing seat causing a loud bang, P1 (abutment issue). Deck beams on the north approach have moderate to severe corrosion. - Transverse deck timbers have isolated splits in various members. - No expansion joints, just expansion gaps. - Other steel truss members appear in fair condition.				
DECK					
Condition:	F1 - Fair	Curbs:	P1 - Poor		
Hand Rail:	I - Inapplicable	Roadway Condition:	P3 - Poor		
Approach Rail:	P3 - Poor				
Comments:	- Asphalt in fair condition on the north approach, F1. Asphalt heavily patches on the south approach, P3. Raceway timbers have severe wear/rutting with numerous splits, P3. - Transverse transition timber between the ballast wall and raceway has lost contact with the steel deck beams below contributing to the loud bang explained in the superstructure section. - Curb 6x6 timbers have sections missing, are heavily weathered and have large splits, P1. - No structural rail, truss members form a barrier from the water. - Guiderail posts generally in poor condition with numerous splits and shakes. Guiderail also has lost its corrugation in several areas. No end blocks. Hazard markers in place.				
HYDROLOGY					
Water Velocity:	Tidal m/s	Ice Problem:	P - Possible Problem		
Water Depth:	Tidal m	Scour Problem:	N - No Problem		
Waterway:	01 - Adequate	Debris Problem:	N - No Problem		
Comments:	- Area tidal in nature.				
REPLACEMENT/REHABILITATION					
Next Rehab. Date:	2023	Replacement Year:	2040		

Antic. Rehab. Cost:	\$150,000	Replacement Cost:	\$2,000,000
Recommendations:	- Repair bearing seat concrete, shim deck beams and install bearings to remove the noise from the structure. - Replace eroded fill on the northwest abutment corner. - Replace raceway timbers. - Replace timber curbs. - Remove gravel from bearing seats. - Repair abutment and wingwall concrete defects. - Replace guiderail. - Replace various transverse deck timbers.		
OBSERVATIONS			
Overall Condition:	F1 - Fair	Requires Further Inspection:	No
Additional Observations:	- Bridge overall in fair condition with P3 and P1 areas. - Steep slopes and watch proximity to ocean. Use pedestrian bridge for cross structure.		

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