

		GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure		BRIDGE INSPECTION REPORT B11242023-1	
Date: 11/24/2023		Inspected By: Darrell Avery		Category: Eng. - Engineering	
BRIDGE INFORMATION					
Site:		TCH-012 - BLACK BROOK BRIDGE (TCH) - R1			
SUBSTRUCTURE					
Condition:	P3 - Poor	Bearings:	U - Uninspectable		
		Bearing Seat:	U - Uninspectable		
Comments:	Previous inspection - North abutment west (20% of abutment width) extension in fair condition, F1. Main eastern section (80% of abutment width) has medium horizontal & vertical cracks throughout. Past rehabs placed a superficial patch to seal the cracks but they have re-opened. Bearing seat has mild spalling under three girders on the east side of structure, F1. Abutment face has medium rust staining just under the bearing seat, F1. At roughly the center line of abutment at the rover level, large constructed opening present, at least 2m wide by 2m high. Northeast abutment corner has medium-heavy spalling with heavy efflorescence. - South abutment has medium horizontal & vertical cracks throughout. Past rehabs placed a superficial patch to seal the cracks but they have re-opened, F1. - Southeast corner of abutment is heavily cracked with heavy-severe efflorescence. Many areas about to spall or delaminate, P3. Abutment face has medium rust staining just under the bearing seat, F1. - All abutment bearings and bearing seats too high for inspection. - Northeast retaining structure and its footing has heavy alligator cracking with medium-heavy efflorescence throughout. Top portion of wingwall is totally disintegrated with an area (2.5m wide x 1m high) of vertical and horizontal rebar exposed, P3. - Southeast retaining structure has two large-wide vertical cracks with medium alligator cracking with efflorescence throughout, P3. - Both western retaining structures have mild alligator cracking throughout, F1. - Both eastern wingwalls have heavy alligator cracking with efflorescence. Old Construction joint opening up with spalling between the top of wingwall and curb, P3. - Both western wingwalls in fair condition, F1. New inspection - void at end of abut #2 right wingwall due to concrete deterioration.				
SUPERSTRUCTURE					
Condition:	F1 - Fair	Expansion Joints:	P3 - Poor		
Comments:	Previous inspection - Girders in fair condition with some leakage/efflorescence coming through the deck and running down the girder sides, indicating some cracking in the deck above. Bottom of deck has localized areas of spalling to exposed reinforcement, F1. - Efflorescence seen under and to the side of the south expansion joint from below. Suspect cracked seals or deteriorated concrete, P3. - Deck soffits have mild rust staining with minor cracking with efflorescence throughout.				
DECK					
Condition:	F1 - Fair	Curbs:	F1 - Fair		
Hand Rail:	F1 - Fair	Roadway Condition:	F1 - Fair		
Approach Rail:	F1 - Fair				
Comments:	Previous inspection - Asphalt and structural handrails in fair condition. - Approach/exit rails in fair condition complete with hazard markers and connected to end blocks. - Curbs have mild alligator cracking throughout, F1. New inspection - approach #2 right asphalt settlement, right curb damage & approach # 2 left shoulder washout adjacent to wingwall.				
HYDROLOGY					
Water Velocity:	1.0 m/s	Ice Problem:	N - No Problem		
Water Depth:	Varies m	Scour Problem:	N - No Problem		
Waterway:	01 - Adequate	Debris Problem:	N - No Problem		

Comments:	Previous inspection - Bedrock under north abutment should be monitored. Waterfall slamming into rock eroding rock and making cove like structures. May have been there since bridge was built.		
REPLACEMENT/REHABILITATION			
Next Rehab. Date:	2025	Replacement Year:	2030
Antic. Rehab. Cost:	\$100000	Replacement Cost:	\$2500000
Recommendations:	Previous inspection - Superficial rehab only to chip out and repair bad concrete. Abutments and retaining structures need replacement within 5-10 years.		
OBSERVATIONS			
Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	Previous inspection - Abutments and retaining structures, P3. F1 remainder. - Turn off onto route 204 and enter community and drive up Black Brook Drive and park off highway behind guiderail. Go down under structure on southeast corner. - Hazards, steep slopes, cliffs (leading edges, stay back 6 feet) and slippery rocks under structure.		

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2026.