GOVERNMENT OF
NEWFOUNDLAND
AND LABRADOR
Department of Transportation and Infrastructure

BRIDGE INSPECTION REPORT
B03072025-3

Date: 2/27/2025 **Inspected By:** T Upshall / M Button **Category:** Eng. - Engineering

BRIDGE INFORMATION

Site: 1-123 - GREAT BARASWAY RIVER BRIDGE - R100

SUBSTRUCTURE

Condition: P3 - Poor
Bearings: F1 - Fair
Bearing Seat: F1 - Fair

Comments: - Both abutments have several medium to wide vertical cracks with light erosion to waterline concrete, F1. - Southwest abutment corner, under the bearing seat, has local spalls and delaminations exposing reinforcement with moderate to severe corrosion, P3. - All wingwalls have locations with narrow to medium map cracks with moderate efflorescence, P3. Southwest wingwall has isolated spalls and delaminations, F1 to P3. - Visible exterior bearings generally in fair condition. Interior bearings not inspectable to due height from riverbed. - Bearing seat perimeter intact. Local cracking to abutment exterior corners/bearing seat, F1.

SUPERSTRUCTURE

Condition: P3 - Poor
Expansion Joints: P - Poor

Comments: - Expansion joint dams have severe wide cracks and are leaking onto abutments below. Curb concrete around expansion joints disintegrated/spalled/wide cracks/delaminated. Joints not functioning as intended, P. - Girders and diaphragms have numerous low cover spalls throughout, P3. - Exterior downstream girder has hairline to narrow map cracks throughout, F1 to P3 (prevailing wind face). Upstream girder does not have this issue. - All girders shear/bearing blocks have numerous narrow cracks throughout, F1 to P3. - Top flange of girders disintegrating under leaking expansion joints, P3. - Isolated narrow longitudinal cracks to bottom flange of some girders, F1. - Deck soffit has local hairline cracks with light to moderate efflorescence under and around the expansion joints, P3. Deck soffit F1 to F2 remainder.

DECK

Condition: P1 - Poor
Curbs: P1 - Poor
Hand Rail: P1 - Poor
Roadway Condition: P - Poor
Approach Rail: P - Poor

Comments: *Assumed condition of deck top (covered in asphalt) based on condition of deck soffit below. Exposed areas of the concrete deck (in asphalt potholes) have various wide cracks with delaminations. On the north side of the bridge, around the expansion joint, the concrete deck has progressive edge cracking and is delaminated from the concrete below, P1. Remainder assumed F1. - Curb tops on wingwalls covered in gravel/vegetation/alders and not inspectable. - Curb tops on the bridge have widespread hairline cracks and delaminations throughout, P1. - Exterior vertical faces of the curb disintegrated around expansion joints. Wide cracks along drip bead with widespread delaminations throughout. Curb concrete possibly inadequate for a structure rail impact. - Structure rail has damaged ends, missing all end caps, severe corrosion to some rail connective hardware, and some bolts are not tight on various rail posts. Various dents and scrapes throughout all components. Post curb support concrete is not sound in most locations, P1 to P. - Approach rail/guiderail has various rotten posts and severe damage to isolated locations of rail, P. - Approach asphalt has numerous deep potholes with severe map cracking throughout. Subgrade gravels covering the roadway, P. Asphalt spalled/delaminated forming several potholes on the concrete deck, P. - No hazard markers or end blocks.

HYDROLOGY

Water Velocity: > 1 **m/s**
Ice Problem: N - No Problem
Water Depth: ~1.5 **m**
Scour Problem: N - No Problem

Waterway:	01 - Adequate	**Debris Problem:**	N - No Problem
Comments:	- Inspection complete during high flow event. Water was roughly 1.2m deep near both abutments. No scour found.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:		**Replacement Year:**	
Antic. Rehab. Cost:	$	**Replacement Cost:**	$
Recommendations:	- Complete various deck repairs + waterproof and resurface. - Replace expansion joints. Raise end dam heights to accommodate asphalt and waterproofing. Could convert to semi-integral. - Replace curbs. - Replace structure rails and salvage 4-rail aluminum system. - Replace approach rails with “Guiderail Structures” complete with hazard markers. - Complete various crack injections and concrete repairs to abutments/wingwalls and girders.		

OBSERVATIONS

Overall Condition:	P3 - Poor	**Requires Further Inspection:**	No
Additional Observations:	- Salmon river. - Utility poles on downstream side.		