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|  |  | GOVERNMENT OF<br>NEWFOUNDLAND<br>AND LABRADOR<br>Department of Transportation and Infrastructure |                  | <b>BRIDGE INSPECTION REPORT</b><br><b>B05282022-4</b> |  |
| Date: 4/12/2022   |  | Inspected By: Trevor Upshall   |                  | Category: Eng. - Engineering                          |  |
| <b>BRIDGE INFORMATION</b>   |  |  |                  |   |  |
| Site:   |  | 1-283 - NORTH POND BROOK BRIDGE - R20  |                  |   |  |
| <b>SUBSTRUCTURE</b>   |  |  |                  |   |  |
| Condition:  | F2 - Fair  | Bearings:  | I - Inapplicable |   |  |
|   |  | Bearing Seat:  | I - Inapplicable |   |  |
| Comments:   | Original structure extended approximately 3.0 meters upstream. Assumed condition of buried/submerged reinforced concrete frame leg footings. Light erosion to top of footings that are visible.  |  |                  |   |  |
| <b>SUPERSTRUCTURE</b>   |  |  |                  |   |  |
| Condition:  | P3 - Poor  | Expansion Joints:  | I - Inapplicable |   |  |
| Comments:   | P3 - Original structure frame legs and downstream wing walls. F2 - Remainder. Wide vertical/horizontal cracks with medium efflorescence deposits in original frame legs. Narrow cracks and severe disintegration to faces of both downstream wing walls. Wide joint opening between frame legs and deck with medium efflorescence deposits. Medium spalling, efflorescence, and corrosion to exposed reinforcement along vertical construction joint at east extension. Light erosion to frame legs at watermark.                  |  |                  |   |  |
| <b>DECK</b>   |  |  |                  |   |  |
| Condition:  | F1 - Fair  | Curbs:   | F2 - Fair        |   |  |
| Hand Rail:  | P3 - Poor  | Roadway Condition:   | F2 - Fair        |   |  |
| Approach Rail:  | I - Inapplicable   |  |                  |   |  |
| Comments:   | Soffit has severe spalling, exposed rebar, and narrow-medium cracks with efflorescence. Upstream fascia narrow horizontal cracks with efflorescence. Downstream concrete handrail posts severe spalling with exposed rebar and medium vertical cracks. Severe slope/shoulder erosion to SE corner of structure. Upstream handrail replaced with temporary wooden posts and aluminum handrails. Medium delamination to east curb. Longitudinal cracks in asphalt near south approach. No approach/exit guiderail or hazard markers. |  |                  |   |  |
| <b>HYDROLOGY</b>  |  |  |                  |   |  |
| Water Velocity:   | 0.2 m/s  | Ice Problem:   | N - No Problem   |   |  |
| Water Depth:  | 0.4 m  | Scour Problem:   | N - No Problem   |   |  |
| Waterway:   | 01 - Adequate  | Debris Problem:  | N - No Problem   |   |  |
| Comments:   | Severe shoulder/embankment erosion at SE corner of structure.  |  |                  |   |  |
| <b>REPLACEMENT/REHABILITATION</b>   |  |  |                  |   |  |
| Next Rehab. Date:   | 2022   | Replacement Year:  | 2024             |   |  |
| Antic. Rehab. Cost:   | \$50,000.00  | Replacement Cost:  | \$250,000.00     |   |  |
| Recommendations:  | Repair shoulder erosion, install approach/exit rails with hazard markers. Repair concrete defects, install new handrails.  |  |                  |   |  |
| <b>OBSERVATIONS</b>   |  |  |                  |   |  |
| Overall Condition:  | P3 - Poor  | Requires Further Inspection:   | Yes              |   |  |
| Additional Observations:  | P3 - Original structure, wing walls, handrails. F2 - Remainder   |  |                  |   |  |