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|    | GOVERNMENT OF<br>NEWFOUNDLAND<br>AND LABRADOR<br>Department of Transportation and Infrastructure   | <b>BRIDGE INSPECTION REPORT</b><br><b>B08012023-2</b>                                |                              |
| <b>Date:</b> 8/26/2023  | <b>Inspected By:</b> Darrell Avery   | <b>Category:</b> Eng. - Engineering  |                              |
| <b>BRIDGE INFORMATION</b>   |  |  |                              |
| <b>Site:</b>  | TCH-029 - MIDDLE BROOK BRIDGE (SQUARE POND)  |  |                              |
| <b>Route:</b>   | 1  | <b>Overall Length:</b>   | 28 m                         |
| <b>Year Built:</b>  | 1952   | <b>Est: Yes</b>  | <b>Overall Width:</b> 13.4 m |
| <b>Year Last Rehab.:</b>  | 1990   | <b>Est: No</b>   | <b>Roadway Width:</b> 12 m   |
| <b>Region:</b>  | CENTRAL EAST   | <b>Sidewalk Width:</b>   | 0 m                          |
| <b>Jurisdiction:</b>  | Provincial   | <b>Clearance to R.D. or N.W.L.:</b>  | 4 m                          |
| <b>Type of Structure:</b>   | 13 - Other   | <b>Max Depth of N.W.L.:</b>  | 0.5 m                        |
| <b>Purpose of Structure:</b>  | 04 - Over Non-Navigable Waters   |  |                              |
| <b>Type of Handrail:</b>  | 01 - Aluminum Rail   | <b>Spans:</b>  |                              |
| <b>Roadway Surface:</b>   | 02 - Asphalt   | <b>Span No.:</b>   | <b>Length</b>                |
| <b>Alignment Vertical:</b>  | 01 - Good  | 1  | 26                           |
| <b>Alignment Horizontal:</b>  | 01 - Good  | 2  | 0                            |
| <b>Restrictions:</b>  | No   | 3  | 0                            |
|   |  | <b>Span No.:</b>   | <b>Length</b>                |
|   |  | 4  | 0                            |
|   |  | 5  | 0                            |
|   |  | 6  | 0                            |
| <b>BRIDGE PHOTOS</b>  |  |  |                              |
|  |  |  |                              |
| <b>SUBSTRUCTURE</b>   |  |  |                              |
| <b>Condition:</b>   | F1 - Fair  | <b>Bearings:</b>   | I - Inapplicable             |
|   |  | <b>Bearing Seat:</b>   | I - Inapplicable             |
| <b>Comments:</b>  | Concrete abutments and wing walls. Abutment two has concrete erosion at the normal water line. Wing walls have light cracking with some wider cracks that was filled, Structure widened left and right for TCH widening. Gabion retaining walls all four corners. Gabion wall at abutment one left side is gone, gabion abutment 2 right side has no wire remaining in the basket below the high water line and left side losing ballast at bottom. There is a longitudinal crack along the middle of the entire structure at the left construction joint. Abutment 2 right has scour - not checked on this inspection. Abutment 2 left has concrete erosion/void between the footing and abutment 150mm to 200mm deep, 3000mm long and 60mm wide. |  |                              |
| <b>SUPERSTRUCTURE</b>   |  |  |                              |
| <b>Condition:</b>   | F2 - Fair  | <b>Expansion Joints:</b>   | I - Inapplicable             |
| <b>Comments:</b>  | Arch rigid frame. Soffit in good condition, cracking along facia.  |  |                              |

|                                   |   |                                     |                   |
|-----------------------------------|---|-------------------------------------|-------------------|
| <b>DECK</b>                       |   |                                     |                   |
| <b>Condition:</b>                 | F2 - Fair   | <b>Curbs:</b>                       | P3 - Poor         |
| <b>Hand Rail:</b>                 | F2 - Fair   | <b>Roadway Condition:</b>           | F2 - Fair         |
| <b>Approach Rail:</b>             | P3 - Poor   |                                     |                   |
| <b>Comments:</b>                  | Asphalt wearing surface resurfaced in 2016 has ponding over Abutment 2 left. Aluminum 4 rail system with concrete end blocks. End blocks have cracking, disintegration and exposed rebar. Approach is not structural rail. Curbs have map cracking and some disintegration. |                                     |                   |
| <b>HYDROLOGY</b>                  |   |                                     |                   |
| <b>Water Velocity:</b>            | 1.5 m/s   | <b>Ice Problem:</b>                 | N - No Problem    |
| <b>Water Depth:</b>               | 5 m   | <b>Scour Problem:</b>               | K - Known Problem |
| <b>Waterway:</b>                  | 01 - Adequate   | <b>Debris Problem:</b>              | N - No Problem    |
| <b>Comments:</b>                  |   |                                     |                   |
| <b>REPLACEMENT/REHABILITATION</b> |   |                                     |                   |
| <b>Next Rehab. Date:</b>          |   | <b>Replacement Year:</b>            |                   |
| <b>Antic. Rehab. Cost:</b>        | \$90000   | <b>Replacement Cost:</b>            | \$0               |
| <b>Recommendations:</b>           | Rehabilitate deck. Repair curbs. Repair or replace end blocks. Replace all gabion walls. Replace guide rail with structural rail. Repair scour below footing and abutment.  |                                     |                   |
| <b>OBSERVATIONS</b>               |   |                                     |                   |
| <b>Overall Condition:</b>         | F1 - Fair   | <b>Requires Further Inspection:</b> | No                |
| <b>Additional Observations:</b>   |   |                                     |                   |

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