




|                                                                                     |                                                                                                                                                           |                                                                                      |                              |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------|
|    | GOVERNMENT OF<br>NEWFOUNDLAND<br>AND LABRADOR<br>Department of Transportation and Infrastructure                                                          | <b>BRIDGE INSPECTION REPORT</b><br><b>B07232018-12</b>                               |                              |
| <b>Date:</b> 5/1/2018                                                               | <b>Inspected By:</b> Chris Lyver                                                                                                                          | <b>Category:</b> Eng. - Engineering                                                  |                              |
| <b>BRIDGE INFORMATION</b>                                                           |                                                                                                                                                           |                                                                                      |                              |
| <b>Site:</b>                                                                        | 1-344 - RAYMOND BROOK BRIDGE                                                                                                                              |                                                                                      |                              |
| <b>Route:</b>                                                                       | 3                                                                                                                                                         | <b>Overall Length:</b>                                                               | 28 m                         |
| <b>Year Built:</b>                                                                  | 1999                                                                                                                                                      | <b>Est:</b> No                                                                       | <b>Overall Width:</b> 13.5 m |
| <b>Year Last Rehab.:</b>                                                            | 2000                                                                                                                                                      | <b>Est:</b> No                                                                       | <b>Roadway Width:</b> 12.6 m |
| <b>Region:</b>                                                                      | AVALON PENINSULA                                                                                                                                          |                                                                                      | <b>Sidewalk Width:</b> 0 m   |
| <b>Jurisdiction:</b>                                                                | Provincial                                                                                                                                                | <b>Clearance to R.D. or N.W.L.:</b>                                                  | 4.5 m                        |
| <b>Type of Structure:</b>                                                           | 04 - Rigid Frame                                                                                                                                          | <b>Max Depth of N.W.L.:</b>                                                          | 0.5 m                        |
| <b>Purpose of Structure:</b>                                                        | 04 - Over Non-Navigable Waters                                                                                                                            |                                                                                      | <b>Spans:</b>                |
| <b>Type of Handrail:</b>                                                            | 05 - Concrete Barrier                                                                                                                                     | <u>Span No.:</u>                                                                     | <u>Length</u>                |
| <b>Roadway Surface:</b>                                                             | 02 - Asphalt                                                                                                                                              | 1                                                                                    | 13.5                         |
| <b>Alignment Vertical:</b>                                                          | 01 - Good                                                                                                                                                 | 2                                                                                    | 0                            |
| <b>Alignment Horizontal:</b>                                                        | 01 - Good                                                                                                                                                 | 3                                                                                    | 0                            |
| <b>Restrictions:</b>                                                                | No                                                                                                                                                        | 6                                                                                    | 0                            |
| <b>BRIDGE PHOTOS</b>                                                                |                                                                                                                                                           |                                                                                      |                              |
|  |                                                                                                                                                           |  |                              |
| <b>SUBSTRUCTURE</b>                                                                 |                                                                                                                                                           |                                                                                      |                              |
| <b>Condition:</b>                                                                   | F2 - Fair                                                                                                                                                 | <b>Bearings:</b>                                                                     | I - Inapplicable             |
|                                                                                     |                                                                                                                                                           | <b>Bearing Seat:</b>                                                                 | I - Inapplicable             |
| <b>Comments:</b>                                                                    | - Light erosion along faces of frame leg footings. - North frame leg footings partially submerged/ buried. - North frame leg footing partially submerged. |                                                                                      |                              |
| <b>SUPERSTRUCTURE</b>                                                               |                                                                                                                                                           |                                                                                      |                              |
| <b>Condition:</b>                                                                   | F2 - Fair                                                                                                                                                 | <b>Expansion Joints:</b>                                                             | I - Inapplicable             |
| <b>Comments:</b>                                                                    | - Hairline alligator cracks in 4 wingwalls. - Light spalls in NE/SE wingwalls. - Crack sealed vert. cracks in faces of frame legs continues to hold up.   |                                                                                      |                              |
| <b>DECK</b>                                                                         |                                                                                                                                                           |                                                                                      |                              |
| <b>Condition:</b>                                                                   | F2 - Fair                                                                                                                                                 | <b>Curbs:</b>                                                                        | I - Inapplicable             |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------|
| <b>Hand Rail:</b>     | F2 - Fair                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Roadway Condition:</b> | I - Inapplicable |
| <b>Approach Rail:</b> | F1 - Fair                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                  |
| <b>Comments:</b>      | - Cracked sealed long. cracks in deck soffit holding up with light efflor. deposits. - Hairline alligator/ pattern cracks in barrier walls and end blocks. - Narrow vert. cracks with light efflor, deposits in barrier walls. - Light/ medium damage (dents, buckling, tipping posts) to app./ exit guiderail. - Deck and approaches resurfaced since last inspection. - Deck re-waterproofed since last inspection. |                           |                  |

**HYDROLOGY**

|                        |                                             |                        |                |
|------------------------|---------------------------------------------|------------------------|----------------|
| <b>Water Velocity:</b> | 0.4 m/s                                     | <b>Ice Problem:</b>    | N - No Problem |
| <b>Water Depth:</b>    | 0.5 m                                       | <b>Scour Problem:</b>  | N - No Problem |
| <b>Waterway:</b>       | 01 - Adequate                               | <b>Debris Problem:</b> | N - No Problem |
| <b>Comments:</b>       | - Majority of flow runs past south footing. |                        |                |

**REPLACEMENT/REHABILITATION**

|                            |                                                                                |                          |       |
|----------------------------|--------------------------------------------------------------------------------|--------------------------|-------|
| <b>Next Rehab. Date:</b>   | 2018                                                                           | <b>Replacement Year:</b> | 2049  |
| <b>Antic. Rehab. Cost:</b> | \$10                                                                           | <b>Replacement Cost:</b> | \$600 |
| <b>Recommendations:</b>    | - Repair/ replace damaged app./ exit guiderail c/w new hazard markers (maint). |                          |       |

**OBSERVATIONS**

|                                 |                                                                                               |                                     |    |
|---------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------|----|
| <b>Overall Condition:</b>       | F2 - Fair                                                                                     | <b>Requires Further Inspection:</b> | No |
| <b>Additional Observations:</b> | - Unchanged from 2011 inspection except add minor graffiti on outside faces of barrier walls. |                                     |    |

**LEGEND:**

|                                    |            |                                |                             |                              |
|------------------------------------|------------|--------------------------------|-----------------------------|------------------------------|
| <b>Condition Definitions:</b>      |            |                                | <b>Problem Definitions:</b> | <b>Category Definitions:</b> |
| 1 - *Good - [discontinued code].   | F2 - Fair. | C - Unsafe (Closed to Public). | N - No Problem.             | Maint. - Maintenance.        |
| 2 - *Fair - [discontinued code].   | F1 - Fair. | U - Uninspectable.             | P - Possible Problem.       | Eng. - Engineering.          |
| 3 - *Poor - [discontinued code].   | P3 - Poor. | I - Inapplicable.              | K - Known Problem.          | Office - Bridge Office.      |
| 4 - *Unsafe - [discontinued code]. | P1 - Poor. |                                | NA - Not Applicable.        |                              |
| G - Good.                          | P - Poor.  |                                |                             |                              |

**PHOTO GUIDELINES:**

**Inspection Photos:**

Please provide photos using guidelines below:

- Any item which inspector feels should be documented by photograph
- All items noted above as being P3, P1, P, or C
- Any evidence of known ice, scour, debris, waterway problems

**INSPECTION PHOTOS**