

| Bridge Inspection      |                              |        |  |  |      |                     |               |       |        |   |
|------------------------|------------------------------|--------|--|--|------|---------------------|---------------|-------|--------|---|
| Bridge File Number     | 81556 W-1 Bridge             |        |  |  |      | Form Type           | SG            |       |        |   |
| Year Built/Year Supstr | 1996/1996                    |        |  |  |      | Lot No.             | 4             |       |        |   |
| Bridge or Town Name    | MONARCH                      |        |  |  |      | Inspector Name      | Garry Roberts |       |        |   |
| Located Over           | 23:04 L1 0.408               |        |  |  |      | Inspector Class     | BR CLS A      |       |        |   |
| Located On             | 3:08 L1 31.086               |        |  |  |      | Assistant Name      |               |       |        |   |
| Water Body Cl./Year    |                              |        |  |  |      | Assistant Class     |               |       |        |   |
| Navigabil. Cl./Year    |                              |        |  |  |      | Inspection Date     | 30-Nov-2011   |       |        |   |
| Legal Land Location    | SW SEC 4 TWP 10 RGE 23 W4M   |        |  |  |      | Data Entry By       | Anne Roberts  |       |        |   |
| Longitude, Latitude    | -113:03:56, 49:47:25         |        |  |  |      | Data Entry Date     | 09-Jan-2012   |       |        |   |
| Road Authority         | Alberta Transportation (AIT) |        |  |  |      | Reviewer Name       | Joel Wozney   |       |        |   |
| Contract Main. Area    | CMA25                        |        |  |  |      | Review Date         | 13-Dec-2011   |       |        |   |
| Clear Roadway/Skew     | 12.4 / 65 deg. (RHF)         |        |  |  |      | Dept. Reviewer Name | Tim Davies    |       |        |   |
| AADT/Year              | 7,390 / 2010 (A)             |        |  |  |      | Dept. Review Date   | 12-Jan-2012   |       |        |   |
| Road Classification    | RFD-412.4-130                |        |  |  |      | Follow-Up By        |               |       |        |   |
| Detour Length (km)     | 1                            |        |  |  |      |                     |               |       |        |   |
| Allowable Load (t):    | Single                       | CS1 28 |  |  | Semi | CS2 49              |               | Train | CS3 62 | ----> On Critical Spans<br>---->Critical Member |
| Design Loading:        | CS750                        |        |  |  |      |                     |               |       |        | ----> Primary Span                              |

| Posting Information                  |   |    |                             |  |                  |                  |                  |    |                 |     |                  |     |
|--------------------------------------|---|----|-----------------------------|--|------------------|------------------|------------------|----|-----------------|-----|------------------|-----|
| Required Vert. Clearance Posting (m) |   |    | UNDER: 23 L1 5.4m           |  |                  |                  |                  |    |                 |     |                  |     |
| Posted Vertical Clearance (Y/N)      |   |    | Yes                         |  |                  |                  |                  |    |                 |     |                  |     |
| Posted:                              | Lane  | NB | On Bridge (m)               |  | In Advance (Y/N) | No               | Lane             | SB | On Bridge (m)   | 5.4 | In Advance (Y/N) | Yes |
| Remarks                              | One direction traffic N/B not req'd<br>Measured V.C. may 19 2010<br>5.4 posting is accurate |    |                             |  |                  |                  |                  |    |                 |     |                  |     |
| Required Load Posting (t)            |   |    | Single                      |  |                  |                  | Semi             |    |                 |     | Truck Train      |     |
| Posted Loading (t)                   |   |    | Single                      |  |                  |                  | Semi             |    |                 |     | Truck Train      |     |
| Posted:                              | Lane  | EB | At Junction (Y/N)           |  |                  |                  | In Advance (Y/N) |    |                 |     | At Bridge (Y/N)  |     |
| Posted:                              | Lane  | WB | At Junction (Y/N)           |  | No               | In Advance (Y/N) |                  | No | At Bridge (Y/N) |     | No               |     |
| Remarks                              | Not Required  |    |                             |  |                  |                  |                  |    |                 |     |                  |     |
| Hazard Marker At Bridge (Y/N)        |   |    | No                          |  |                  |                  |                  |    |                 |     |                  |     |
| Remarks                              |   |    |                             |  |                  |                  |                  |    |                 |     |                  |     |
| Other Sign Types                     |   |    | WIND GUSTS, ICY BRIDGE DECK |  |                  |                  |                  |    |                 |     |                  |     |

| Utilities (Located at) |  |  |  |  |               |  |  |  |  |        |
|------------------------|--|--|--|--|---------------|--|--|--|--|--------|
| Utility Attachments    |  |  |  |  |               |  |  |  |  |        |
| Telephone              |  |  |  |  | Gas           |  |  |  |  | 300m E |
| Power                  |  |  |  |  | Municipal     |  |  |  |  |        |
| Others                 |  |  |  |  | Problem (Y/N) |  |  |  |  | No     |
| Remarks                |  |  |  |  |               |  |  |  |  |        |

| Approach Road                       |  |          |          |                                  |
|-------------------------------------|--|----------|----------|----------------------------------|
|                                     |  | Last     | Now      | Explanation of Condition         |
| Horizontal Alignment                |  | 7        | 7        | Blind crest to East              |
| Vertical Alignment                  |  | 5        | 5        |                                  |
| Roadway Width (m)                   |  | 12.500   |          |                                  |
| Approach Bump                       |  | 6        | 7        |                                  |
| Guardrail (Y/N)                     |  | Yes      |          |                                  |
| Guardrail                           |  | 7        | 4        | wrong lap at SW<br>Not thriebeam |
| Length (m)                          |  | 50.000   |          |                                  |
| Current Standard (Y/N)              |  | No       |          |                                  |
| Termination Type                    |  | TURNDOWN |          |                                  |
| Drainage                            |  | 6        | 6        |                                  |
| <b>Approach Road General Rating</b> |  | <b>5</b> | <b>5</b> |                                  |

| Superstructure   |       |              |       |  |  |  |
|--|-------|--------------|-------|--|--|--|
| Bridge Component   |       | Last         | Now   | Explanation of Condition   |  |  |
| (Primary Span : <b>WG, 3 Spans, Lengths(m): 35-60-40, A-Ident Number: A1277-01</b> ) |       |              |       |  |  |  |
| <b>Special Features</b>  |       |              |       |  |  |  |
| Special Feature  |       |              | 7     | dywdag PT @ piers  |  |  |
| (Type : )  |       |              |       |  |  |  |
| Special Feature  |       |              | X     |  |  |  |
| (Type : )  |       |              |       |  |  |  |
| Wearing Surface/Deck Top Detail Ratings  |       |              |       |  |  |  |
|  | N (%) | 1 (%)        | 2 (%) | 3 (%)  |  |  |
| <b>Last</b>  | 0     | 0            | 0     | 0  |  |  |
| <b>Now</b>   | 0.0   | 0.0          | 0.0   | 0.0  |  |  |
| Wearing Surface  |       | 6            | 6     | Moderate transverse and longitudinal cracks<br>Some pop outs - Minor |  |  |
| (Material Type : <b>CONCRETE</b> )   |       |              |       |  |  |  |
| (Thickness(mm) : <b>50</b> )   |       |              |       |  |  |  |
| Deck Top   |       | X            | N     |  |  |  |
| Deck Rideability   |       | 8            | 7     |  |  |  |
| Deck Joints  |       | 7            | 7     | Bangs @ W joint  |  |  |
| Temperature (deg. C)   |       | -1           |       | Finger plate @ W & gland E   |  |  |
| (Expansion Type : <b>FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )          |       |              |       |  |  |  |
| (Fixed Type : )  |       |              |       |  |  |  |
| Gap Size (mm)  |       | Gap Location |       |  |  |  |
| 60   |       | W abut       |       |  |  |  |
| 75   |       | E abut       |       |  |  |  |
|  |       |              |       |  |  |  |
| Deck Drainage  |       | 7            | 5     | Drainage runs to RH lane   |  |  |
| Drains Clogged (Y/N)   |       | No           |       |  |  |  |
| Curbs/Median   |       | 7            | 7     | Transverse cracks & efflorescence                                    |  |  |
| (Curb Type : <b>Standard</b> )   |       |              |       |  |  |  |
| Scaling (Percent Area)   |       | 0            |       |  |  |  |
| Bridge Rail  |       | 8            | 8     | 1 bent A/B at NW post  |  |  |
| (Type : <b>BRIDGE TUBE</b> )   |       |              |       |  |  |  |
| Bridge Rail Posts  |       | 6            | 6     |  |  |  |
| (Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )                         |       |              |       |  |  |  |
| Bridge Rail/Posts Coating  |       | 8            | 7     |  |  |  |
| (Type : )  |       |              |       |  |  |  |
| Sidewalk   |       | X            | X     |  |  |  |
| <b>Girder/Beam</b>   |       |              |       |  |  |  |
| Cover Plate  |       | X            | X     |  |  |  |
| Flange   |       | 8            | 8     |  |  |  |
| Web  |       | 8            | 8     |  |  |  |
| Stiffeners   |       | 8            | 8     |  |  |  |
| Splice   |       | 8            | 8     |  |  |  |
| Weld   |       | 8            | 8     |  |  |  |
| Diaphragms/Cross Frame   |       | 8            | 8     |  |  |  |

| Superstructure   |     |          |          |  |
|--|-----|----------|----------|--|
| Bridge Component   |     | Last     | Now      | Explanation of Condition   |
| (Primary Span : <b>WG, 3 Spans, Lengths(m): 35-60-40, A-Ident Number: A1277-01</b> )   |     |          |          |  |
| Paint Condition  |     | X        | X        | Weathering Steel   |
| (Colour Description : )  |     |          |          |  |
| (Colour Code : )   |     |          |          |  |
| Touchup Required (Y/N)   | No  |          |          |  |
| Bearings   |     | 6        | 6        | Bolts bent 50mm<br>Girders 25mm to north @ east abut bearings<br>Exp. at Abutments |
| Temperature (deg. C)   | -1  |          |          |  |
| (Expansion Type : <b>REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL</b> ) |     |          |          |  |
| (Fixed Type : <b>POT BEARING</b> )   |     |          |          |  |
| Coating Adequate (Y/N)   | Yes |          |          |  |
| Functioning (Y/N)  | Yes |          |          |  |
| Deck Underside   |     | 5        | 5        | Wide spread transverse cracks & efflorescence                                      |
| Stains (Percent Area)  | 5   |          |          |  |
| <b>Span Alignment Problems</b>   |     |          |          |  |
| Vertical (Y/N)   | No  |          |          |  |
| Horizontal (Y/N)   | No  |          |          |  |
| <b>Superstructure General Rating</b>   |     | <b>5</b> | <b>5</b> |  |
| Substructure   |     |          |          |  |
| Bridge Component   |     | Last     | Now      | Explanation of Condition   |
| <b>Abutments</b>   |     |          |          |  |
| Bearing Seats/Caps   |     | 8        | 8        |  |
| (Type : <b>CONCRETE</b> )  |     |          |          |  |
| Backwalls/Breastwalls  |     | 8        | 8        |  |
| Wingwalls  |     | 7        | 7        |  |
| Piles  |     | N        | N        | Buried   |
| Paint/Coating  |     | X        | X        |  |
| Abutment Stability   |     | 8        | 8        |  |
| Scour/Erosion  |     | X        | X        |  |
| <b>Piers/Bents</b>   |     |          |          |  |
| (Type : <b>PIER-SOLID</b> )  |     |          |          |  |
| Bearing Seats/Caps   |     | 8        | 8        |  |
| (Type : <b>CONCRETE</b> )  |     |          |          |  |
| (Total Number of Bearing Piles : <b>0:0</b> )  |     |          |          |  |
| Pier Shaft/Piles   |     | 8        | 8        |  |
| Bracing/Struts/Sheathing   |     | X        | X        |  |
| Nose Plate   |     | X        | X        |  |
| Paint/Coating  |     | 7        | 7        | Pigmented sealer   |
| (Colour Description : )  |     |          |          |  |
| (Colour Code : )   |     |          |          |  |
| Pier Stability   |     | 8        | 8        |  |
| Scour  |     | X        | X        |  |
| Debris (Y/N)   | No  |          |          |  |

| Substructure                           |           |          |          |  |
|--|-----------|----------|----------|--|
| Bridge Component                       |           | Last     | Now      | Explanation of Condition                   |
| <b>Substructure General Rating</b>     |           | <b>8</b> | <b>8</b> |  |
| Structure Usage                        |           |          |          |  |
|  |           | Last     | Now      | Explanation of Condition                   |
| <b>Grade Separation</b>                |           |          |          |  |
| Road Alignment                         |           | 5        | 5        | Curve                                      |
| Traffic Safety Features                |           | 7        | 7        |  |
| Type                                   | GUARDRAIL |          |          |  |
| Slope Protection                       |           | 7        | 6        | Away 50mm and down 20mm @ E. Away 10mm @ W |
| (Type : <b>CONCRETE; CONCRETE</b> )    |           |          |          |  |
| Bank Stability                         |           | 7        | 7        |  |
| Drainage                               |           | 7        | 7        |  |
| <b>Grade Separation General Rating</b> |           | <b>5</b> | <b>5</b> |  |

| Maintenance Recommendations                       |                  |  |                           |               |           |                   |    |
|---|------------------|--|---------------------------|---------------|-----------|-------------------|----|
| Inspector Recommendations                         | Year             | Inspector Comments                       | Department Comments       | Target Year   | Est. Cost | Cat #             |    |
| REPAIR/REPLACE BRIDGE RAIL                        |                  |  |                           |               |           |                   |    |
| GALVANIZE/PAINT BRIDGE RAIL                       |                  |  |                           |               |           |                   |    |
| RETROFIT BRIDGE RAIL                              |                  |  |                           |               |           |                   |    |
| SEAL CURBS  |                  |  |                           |               |           |                   |    |
| PATCH DECK  |                  |  |                           |               |           |                   |    |
| SEAL DECK   |                  |  |                           |               |           |                   |    |
| OVERLAY DECK                                      |                  |  |                           |               |           |                   |    |
| REPAIR/REPLACE DECK JOINTS                        |                  |  |                           |               |           |                   |    |
| RESET/ PAINT BEARINGS                             |                  |  |                           |               |           |                   |    |
| REPAINT SUPERSTRUCTURE                            |                  |  |                           |               |           |                   |    |
| STRAIGHTEN/REPLACE MEMBERS                        |                  |  |                           |               |           |                   |    |
| WASHING   |                  |  |                           |               |           |                   |    |
| SHOTCRETE REPAIRS                                 |                  |  |                           |               |           |                   |    |
| REPAIR ABUTMENT SCOUR/EROSION                     |                  |  |                           |               |           |                   |    |
| PLACE ADDITIONAL RIP RAP                          |                  |  |                           |               |           |                   |    |
| REMOVE DRIFT ACCUMULATION                         |                  |  |                           |               |           |                   |    |
| OTHER ACTION                                      |                  |  |                           |               |           |                   |    |
| OTHER ACTION                                      |                  |  |                           |               |           |                   |    |
| OTHER ACTION                                      |                  |  |                           |               |           |                   |    |
| OTHER ACTION                                      |                  |  |                           |               |           |                   |    |
| <b>Structural Condition Rating (Last/Now) (%)</b> | <b>72.2/72.2</b> | <b>Sufficiency Rating (Last/Now) (%)</b> | <b>64.1/64.0</b>          | Est. Repl. Yr | 2061      | Maint. Req. (Y/N) | No |
| Special Comments for Next Inspection              |                  |  | Department Comments       |               |           |                   |    |
| Maintenance Reviewed By                           |                  |  | Date                      |               |           | Estimated Total   | 0  |
| Proposed Long-Term Strategy                       |                  |  |                           |               |           |                   |    |
| On 3-Year Program (Y/N)                           |                  |  |                           |               |           |                   |    |
| Proposed Action                                   |                  |  |                           |               |           |                   |    |
| Previous Inspector's Name                         | Garry Roberts    |  | Previous Assistant's Name |               |           |                   |    |
| Next Inspection Date                              | 30-Aug-2013      |  | Previous Inspection Date  | 19-May-2010   |           |                   |    |
| Inspection Cycle (Default) (months)               | 21               |  |                           |               |           |                   |    |
| Comment   |                  |  |                           |               |           |                   |    |