| Bridge Culvert Inspection                   |         |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
|---|---------|-----------------------|-----------------------|----------------|-----------|----------------------|---|---------------------|--------------|----------------|-----------------------|-------|--|--|
| Bridge File Number 78680 E-1 Bridge Culvert |         |                       |                       | e ean          | Form Type |                      |   | CUL1                |              |                |                       |       |  |  |
| Year Built 1978                             |         |                       |                       |                |           | Lot No               |   |                     | 2            |                |                       |       |  |  |
| Bridge or Town                              |         |                       |                       | Inspector Name |           | –<br>Todd Warshawski |   |                     |              |                |                       |       |  |  |
| Located Over                                |         | 1                     | CREEK, 8.11.107.25.1, |                |           |                      | Inspector Class   |                     | BR CLS B     |                |                       |       |  |  |
|   |         | WATER                 | CRS-ST                |                |           |                      | Assistant Name  |                     |              |                |                       |       |  |  |
| Located On                                  |         | 16:06 R1              | 1 9.572               |                |           |                      |   | Assistant Class     |              |                |                       |       |  |  |
| Water Body CI./Year                         |         |                       |                       |                |           | Inspection Date      |   | 09-Aug-2012         |              |                |                       |       |  |  |
| Navigabil. Cl./Year                         |         |                       |                       |                |           |                      |   | Data Entry By       |              | Lisa Fairhurst |                       |       |  |  |
| Legal Land Location NE SEC 16 TWP 53        |         |                       |                       |                |           |                      | Data Entry Date   |                     | 23-Aug-2012  |                |                       |       |  |  |
|   |         |                       |                       |                |           |                      | Reviewer Name   |                     | Eric Carcoux |                |                       |       |  |  |
|   |         |                       | Transportation (AIT)  |                |           |                      | Review Date   |                     | 21-Aug-2012  |                |                       |       |  |  |
| Contract Main. Area CMA13                   |         |                       |                       |                |           |                      |   | Dept. Reviewer Name |              | Brent Herrick  |                       |       |  |  |
| Clear Roadway/Skew 15 /                     |         |                       |                       |                |           |                      | Dept. Review Date                                       |                     | 30-Aug-2012  |                |                       |       |  |  |
| AADT/Year                                   |         |                       | 2011 (A)              |                |           |                      | Follow  | -Up By              |              |                |                       |       |  |  |
| Road Classifica                             |         | RAD-412               | 2.4-120               |                |           |                      | -   |                     |              |                |                       |       |  |  |
| Detour Length (                             |         | 1                     |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
| Bridge Culvert                              |         |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
| Number of Culv                              |         | 1                     |                       | Diag (or       |           | Turne                |   | Longth              |              | Corr. Profile  | DI /Clob              | Shana |  |  |
| Pipe #                                      | Barrel  |                       | Span                  | Rise (or       | Dia.)     | Туре                 |   | Length              |              | Corr. Prome    | PI./Slab<br>Thickness | Shape |  |  |
| 1   | MAIN    | -                     |                       | 3670           |           | SP                   |   | 42.7                |              | 152X51         | 2.8                   | ROUND |  |  |
| Special Feature                             | s       |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
| Special Feature                             | s Com   | ment                  |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       |                | Ut        | ilities (l           | ocated  | at)                 |              |                |                       |       |  |  |
| Utility Attachme                            | nts     |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
| Telephone                                   |         |                       |                       |                |           |                      | Gas   |                     |              |                |                       |       |  |  |
| Power                                       | Light   | standards both sides. |                       |                |           |                      | Munici  |                     |              | present.       |                       |       |  |  |
| Others Remarks BF tag on N bevel.           |         |                       |                       |                |           |                      | Proble  | m (Y/N)             | No           |                |                       |       |  |  |
| Remarks                                     | BF tag  | g on in be            | vel.                  | ٨              | pproo     | ah Boo               | d / Emb   | ankment             |              |                |                       |       |  |  |
|   |         |                       |                       | A              | Last      |                      |   |                     |              | tion           |                       |       |  |  |
| Horizontal Alignment                        |         |                       |                       |                | 7         | 7                    | Explanation of Condition<br>Typical town intersections. |                     |              |                |                       |       |  |  |
| Vertical Alignment                          |         |                       |                       |                | 8         | 8                    |   |                     |              |                |                       |       |  |  |
| Roadway Width (m)                           |         | 14.600                |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       | 7              | 7         | 0.4                  | NI -:-!-  |                     |              |                |                       |       |  |  |
| Embankment                                  | .1)     |                       | 1.0                   |                | 7         | 7                    | 2:1 on  |                     |              |                |                       |       |  |  |
| Sideslope (                                 |         | <b>1</b> C)           | 1.0                   |                |           |                      |   |                     |              |                |                       |       |  |  |
| (Height of Cov<br>Guardrail (Y/N)           | ver(m). | . 1.0)                | No                    |                |           |                      |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       |                |           | _                    |   |                     |              |                |                       |       |  |  |
| Approach Road                               | d / Eml | bankmen               | t General Ra          | ting           | 7         | 7                    |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       |                |           | Upstre               | am End  |                     |              |                |                       |       |  |  |
| Culvert Compo                               | onent   |                       |                       |                | Last      |                      |   | nation of           | Condi        | tion           |                       |       |  |  |
| Direction                                   |         |                       | Ν                     |                |           |                      |   |                     |              |                |                       |       |  |  |
| End Treatment<br>Others, None)              | (Concre | ete, Steel            | , STEEL               |                |           |                      |   |                     |              |                |                       |       |  |  |
| Headwall                                    |         |                       |                       |                | X         | X                    |   |                     |              |                |                       |       |  |  |
| Collar                                      |         |                       | X                     | X              |           |                      |   |                     |              |                |                       |       |  |  |
| Wingwalls                                   |         |                       | X                     | X              |           |                      |   |                     |              |                |                       |       |  |  |
| (Shape : )                                  |         |                       |                       |                |           |                      |   |                     |              |                |                       |       |  |  |
| Cutoff Wall                                 |         |                       |                       | X              | X         |                      |   |                     |              |                |                       |       |  |  |
|   |         |                       |                       |                |           |                      | 1   |                     |              |                |                       |       |  |  |

Alberta Transportation

| Upstream End                                 |                      |      |     |  |  |  |  |  |  |  |
|--|----------------------|------|-----|--|--|--|--|--|--|--|
| Culvert Component                            |                      | Last | Now | Explanation of Condition   |  |  |  |  |  |  |
| Bevel End                                    |                      | 5    | 5   |  |  |  |  |  |  |  |
| Heaving (mm)                                 | 200                  |      |     |  |  |  |  |  |  |  |
| Invert Above/Below Stream Bed                | BELOW                |      |     | -  |  |  |  |  |  |  |
| Above/Below (mm)                             | 500                  |      | _   |  |  |  |  |  |  |  |
| Scour Protection                             |                      | 5 5  |     | Grass with several scattered sandstone boulders.   |  |  |  |  |  |  |
| (Type : NATURAL)                             |                      |      |     |  |  |  |  |  |  |  |
| (Avg. Rock Size(mm) : )                      |                      |      |     |  |  |  |  |  |  |  |
| Scour/Erosion                                |                      | 5    | 5   |  |  |  |  |  |  |  |
| Beavers (Y/N)                                | No                   |      |     |  |  |  |  |  |  |  |
| Upstream End General Rating                  |                      | 5    | 5   |  |  |  |  |  |  |  |
|  |                      | Bric |     | Ivert Barrel   |  |  |  |  |  |  |
| Culvert Component                            |                      | Last | Now | Explanation of Condition   |  |  |  |  |  |  |
| (Pipe # : 1, Primary Span, Loca              | tion Code: MAIN. Spa |      |     | , Rise (mm): 3670, Type: SP)   |  |  |  |  |  |  |
| Barrel Last Accessible Date                  |                      |      | ,   | (Water 1.5m deep. Viewed from ends, shape and condition appear good.                               |  |  |  |  |  |  |
| Special Features                             |                      |      |     |  |  |  |  |  |  |  |
| Special Feature                              |                      |      |     |  |  |  |  |  |  |  |
| (Type : )                                    |                      |      |     | There is steel grating at both ends of pipe to keep public out.<br>Debris caought up on u/s grate. |  |  |  |  |  |  |
| Special Feature                              |                      |      |     |  |  |  |  |  |  |  |
| (Type : )                                    |                      |      |     |  |  |  |  |  |  |  |
| Roof   |                      | 7    | N   | (Sag est @ 7.5%) Sep 2010  |  |  |  |  |  |  |
| Measured Rise (mm)                           |                      |      |     |  |  |  |  |  |  |  |
| Measured At Ring No.                         |                      |      |     |  |  |  |  |  |  |  |
| Sag (mm)                                     | 0                    |      |     |  |  |  |  |  |  |  |
| Percent Sag                                  |                      |      |     |  |  |  |  |  |  |  |
| Sidewall                                     |                      | 7    | N   | (Deflection est @ 7.5%) Sep 2010   |  |  |  |  |  |  |
| Measured Span (mm)                           |                      |      |     |  |  |  |  |  |  |  |
| Measured At Ring No.                         |                      |      |     |  |  |  |  |  |  |  |
| Deflection (mm)                              | 0                    |      |     |  |  |  |  |  |  |  |
| Percent Deflection                           |                      |      |     |  |  |  |  |  |  |  |
| Floor  |                      | N    | N   |  |  |  |  |  |  |  |
| Bulge (mm)                                   |                      |      |     |  |  |  |  |  |  |  |
| Measured At Ring No.                         |                      |      |     |  |  |  |  |  |  |  |
| Abrasion (Y/N)                               |                      |      |     |  |  |  |  |  |  |  |
| Circumferential Seams                        |                      | N    | N   |  |  |  |  |  |  |  |
| Separation (mm)                              |                      |      |     | 1  |  |  |  |  |  |  |
| Longitudinal Seams                           |                      | N    | N   |  |  |  |  |  |  |  |
| Total No. of Cracked Rings                   |                      |      |     | 1  |  |  |  |  |  |  |
| Total No. of Rings with Two<br>Cracked Seams |                      |      |     |  |  |  |  |  |  |  |
| Min. Remaining Steel<br>Between Cracks (mm)  |                      |      |     |  |  |  |  |  |  |  |
| Proper Lap (Y/N)                             | No                   |      |     |  |  |  |  |  |  |  |
| Longitudinal Stagger (Y/N)                   | No                   |      |     |  |  |  |  |  |  |  |
| Coating                                      |                      | N    | N   |  |  |  |  |  |  |  |
| Corrosion By Soil (Y/N)                      |                      |      |     |  |  |  |  |  |  |  |
| Corrosion By Water (Y/N)                     | Yes                  |      |     |  |  |  |  |  |  |  |
| Camber POS/ZERO/NEG                          | ZERO                 |      |     |  |  |  |  |  |  |  |

Alberta Transportation

Bridge Inspection & Maintenance System (Web 2005)

78680 E-1 Bridge Culvert

|   |                                       | Brie     | dge Cu | lvert Barrel   |  |  |  |  |  |
|---|---------------------------------------|----------|--------|--|--|--|--|--|--|
| Culvert Component   |                                       | Last     | Now    | Explanation of Condition   |  |  |  |  |  |
| (Pipe # : <b>1, Primary Span, Loca</b>                        | tion Code: MAIN, S                    | Span (mm | ı):    | , Rise (mm): 3670, Type: SP)   |  |  |  |  |  |
| Ponding (Y/N)   | Yes                                   |          |        |  |  |  |  |  |  |
| Fish Passage Adequacy   |                                       | 8        | 8      |  |  |  |  |  |  |
| Baffle  |                                       |          | N      |  |  |  |  |  |  |
| (Type : )   |                                       |          |        |  |  |  |  |  |  |
| Waterway Adequacy   |                                       | 6        | 6      |  |  |  |  |  |  |
| Icing (Y/N)   | No                                    |          |        | Drift caught in steel grate.   |  |  |  |  |  |
| Silting (Y/N)   | No                                    |          |        | Dhit caught in steel grate.  |  |  |  |  |  |
| Drift (Y/N)   | Yes                                   |          |        |  |  |  |  |  |  |
| Barrel General Rating   |                                       |          | N      | (G.R. of "7" carried forward for at least 4 inspection cycles but last access not known) |  |  |  |  |  |
|   |                                       |          |        | ream End   |  |  |  |  |  |
| Culvert Component   |                                       | Last     | Now    | Explanation of Condition   |  |  |  |  |  |
| Direction<br>End Treatment (Concrete, Steel,<br>Others, None) | STEEL                                 | S        |        | -  |  |  |  |  |  |
| Headwall  |                                       | X        | X      |  |  |  |  |  |  |
| Collar  |                                       |          | X      |  |  |  |  |  |  |
| Wingwalls   |                                       | X        | X      |  |  |  |  |  |  |
| <b>*</b>  |                                       | <b>^</b> | ~      |  |  |  |  |  |  |
| (Shape : )<br>Cutoff Wall                                     |                                       | X        | V      |  |  |  |  |  |  |
|   |                                       | ^        | X      |  |  |  |  |  |  |
| Bevel End   |                                       | 6        | 6      | Partially submerged.   |  |  |  |  |  |
| Heaving (mm)  | 100                                   |          |        |  |  |  |  |  |  |
| Invert Above/Below Stream Bed                                 | BELOW                                 |          |        |  |  |  |  |  |  |
| Above/Below (mm)  | 500                                   |          |        |  |  |  |  |  |  |
| Scour Protection  |                                       | 6        | 6      | Grass with several scatttered sandstone boulders.  |  |  |  |  |  |
| (Type : <b>NATURAL</b> )                                      |                                       |          |        |  |  |  |  |  |  |
| (Avg. Rock Size(mm) : )                                       |                                       |          |        |  |  |  |  |  |  |
| Scour/Erosion   |                                       | 6        | 6      |  |  |  |  |  |  |
| Beavers (Y/N)   | No                                    |          |        |  |  |  |  |  |  |
| Downstream End General Ration                                 | ng                                    | 6        | 6      |  |  |  |  |  |  |
|   |                                       |          |        | re Usage   |  |  |  |  |  |
|   |                                       | Last     | Now    | Explanation of Condition   |  |  |  |  |  |
| Channel (U/S and D/S)<br>Alignment                            |                                       | 5        | 5      | Turns East D/S. Channel undefined near culvert.  |  |  |  |  |  |
| Bank Stability  |                                       |          | 6      |  |  |  |  |  |  |
| LIM/M (m bolow Tap of Outro ()                                |                                       |          |        | LINANA pot visible   |  |  |  |  |  |
| HWM (m below Top of Culvert)                                  | Voc                                   |          |        | HWM not visible.   |  |  |  |  |  |
|   | Drift (Y/N) Yes                       |          |        |  |  |  |  |  |  |
| Channel Bottom AGGRADING Degrading/Aggrading                  |                                       |          |        | -  |  |  |  |  |  |
| Beavers (Y/N)   | No                                    |          |        |  |  |  |  |  |  |
| (Fish Compensation Measure 1 :                                | · · · · · · · · · · · · · · · · · · · |          |        | -  |  |  |  |  |  |
| (Fish Compensation Measure 2 :                                | NONE)                                 | 5        | -      |  |  |  |  |  |  |
| Channel General Rating  |                                       |          | 5      |  |  |  |  |  |  |

Alberta Transportation

| Maintenance Recommendations  |              |                                      |                           |             |             |       |                 |           |     |  |  |
|--|--------------|--------------------------------------|---------------------------|-------------|-------------|-------|-----------------|-----------|-----|--|--|
| Inspector Recommendations  | Year         | Inspector Comments                   | Department                | Target Year | Est. Cost   | Cat # |                 |           |     |  |  |
| SHOTCRETE REPAIRS  |              |                                      |                           |             |             |       |                 |           |     |  |  |
| PLACE ADDITIONAL RIP RAP   |              |                                      |                           |             |             |       |                 |           |     |  |  |
| REMOVE DRIFT ACCUMULATION  | 2012         | Remove debris from inlet and outlet  |                           |             |             |       |                 |           |     |  |  |
| INSTALL CONCRETE/STEEL LINING  |              |                                      |                           |             |             |       |                 |           | _   |  |  |
| INSTALL STRUTS   |              |                                      |                           |             |             |       |                 |           | _   |  |  |
| INSTALL CONCRETE COLLAR/CUT  | DFF          |                                      |                           |             |             |       |                 |           | _   |  |  |
| REPAIR SEAMS   |              |                                      |                           |             |             |       |                 |           | _   |  |  |
| OTHER ACTION   |              |                                      |                           |             |             |       |                 |           |     |  |  |
| OTHER ACTION   |              |                                      |                           |             |             |       |                 |           | -   |  |  |
|  |              |                                      |                           |             |             |       |                 |           |     |  |  |
| OTHER ACTION   |              |                                      |                           |             |             |       |                 |           |     |  |  |
| Structural Condition Rating (Last/N<br>(%)   | ow) 55.6/5   | 5.6 Sufficiency Rating (Last/<br>(%) | Now) 56.2/57.5 Est. Re    |             | t. Repl. Yr | 2030  | Maint. Red      | qd. (Y/N) | Yes |  |  |
| Special<br>Comments for<br>Next InspectionAs this structure has not been accessed for 2 or more cycles, a Level 2 inspection is<br>required as per BIM Manual Section 13.9.1.5. Based on observed site evaluations<br>we are recommending that this be deferred to a later date.Department<br>Comments<br>Comments |              |                                      |                           |             |             |       |                 |           |     |  |  |
| Maintenance Reviewed By  |              |                                      | Date                      |             |             | E     | Estimated Total | 0         |     |  |  |
| Proposed Long-Term Strategy  |              |                                      |                           |             |             |       |                 |           |     |  |  |
| On 3-Year Program (Y/N)  |              |                                      |                           |             |             |       |                 |           |     |  |  |
| Proposed Action  |              |                                      |                           |             |             |       |                 |           |     |  |  |
| Previous Inspector's Name  | Todd Warshaw | vski                                 | Previous Assistant's Name |             |             |       |                 |           |     |  |  |
| Next Inspection Date   | 09-May-2014  |                                      | Previous Inspection Da    |             |             |       |                 |           |     |  |  |
| Inspection Cycle (Default) (months)  | 21           |                                      |                           |             |             |       |                 |           |     |  |  |
| Comment  |              |                                      |                           |             |             |       |                 |           |     |  |  |