| Bridge Culvert Inspection                              |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
|--|----------------------|---------------------|------------|------------|---------------|--|--|---------------|-----------------|-----------------------|-------|--|--|
| Bridge File Number 82053 -1                            |                      | 3 -1 Bridge Culvert |            |            |               | Form Type  |  |               | CUL1            |                       |       |  |  |
| Year Built 1999  |                      |                     |            |            |               | Lot No.  |  |               | 2               |                       |       |  |  |
| Bridge or Town Name WHITECOURT                         |                      |                     |            |            |               | Inspector Name   |  |               | Kris Bosters    |                       |       |  |  |
| Located Over WATERCOURSE, WATERCRS                     |                      |                     |            | NI         |               | Inspector Class  |  |               | BR CLS A        |                       |       |  |  |
| Located On 43:14 L1 28.411                             |                      |                     |            |            |               | Assistant Name   |  |               |                 |                       |       |  |  |
| Water Body Cl./  | Year                 |                     |            |            |               |  | nt Class                                       |               |                 |                       |       |  |  |
| Navigabil. Cl./Ye                                      | ear                  |                     |            |            |               |  | ion Date                                       |               | 04-Oct-2011     |                       |       |  |  |
| Legal Land Loca  | ation SE SE          | C 21 TWP 60 R       | GE 13 W5   | БM         |               | Data Entry By  |  |               | Theresa Lacusta |                       |       |  |  |
| Longitude, Latitu                                      | ude -115:52          | 2:60, 54:12:06      |            |            |               | Data Entry Date  |  |               | 25-Oct-2011     |                       |       |  |  |
| Road Authority   | Transportation (AIT) |                     |            |            | Reviewer Name |  |  | Eric Carcoux  |                 |                       |       |  |  |
| Contract Main. A                                       | 2                    |                     |            |            |               | Date   |  | 22-Oct-2011   |                 |                       |       |  |  |
| Clear Roadway/   | 3 deg. (RHF)         | eg. (RHF)           |            |            |               | Reviewer   | Name   | Brent Herrick |                 |                       |       |  |  |
| AADT/Year  | 6,030 /              | 2010 (A)            | 2010 (A)   |            |               |  |  | ate           | 26-Oct-2011     |                       |       |  |  |
| Road Classificat                                       | ion RAD-4            | 12.4-120            |            |            |               | Follow-  | Uр Ву  |               |                 |                       |       |  |  |
| Detour Length (  | (m) 1                |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Bridge Culvert Information                             |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Number of Culverts 1                                   |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Pipe #   | Barrel               | Span Rise (d        |            | Dia.) Type |               |  | Length   |               | Corr. Profile   | PI./Slab<br>Thickness | Shape |  |  |
| 1  | MAIN                 | -                   | 2430       |            | SP            |  | 166.4  |               | 152X51          | 4.0                   | ROUND |  |  |
| Special Features                                       |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Special Features                                       | s Comment            |                     |            |            |               |  |  |               |                 |                       |       |  |  |
|  |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
|  | - 4 -                |                     |            | Uti        | lities (L     | _ocated  | at)  |               |                 |                       |       |  |  |
| Utility Attachmer                                      | Itility Attachments  |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Telephone  | North r/w.           | / <u> </u>          |            |            |               | Gas  |  |               |                 |                       |       |  |  |
| Power  | 4 wires North        | r/w. 3 wires So     | uth r/w.   |            |               |  |  |               |                 |                       |       |  |  |
| Others   | Fibre optics N       | lorth r/w.          |            |            |               |  |  |               |                 |                       |       |  |  |
| Remarks  | BF tag installe      | ed on top of Nor    | th concret | e nead     | dwall.        |  |  |               |                 |                       |       |  |  |
|  |                      |                     | Ар         | l ast      | Now           | Explan   | ation of                                       | Condi         | tion            |                       |       |  |  |
| Herizentel Alienment                                   |                      |                     |            | 2<br>2     | 8             | Crest curve with limited sight distances.                                |  |               |                 |                       |       |  |  |
| Nortical Alignment                                     |                      |                     |            | 6          | 6             |  |  | minico        |                 | 5.                    |       |  |  |
| Roadway Width (m)                                      |                      | 25.100              |            |            | 0             | EBL 12.7, WBL 12.4.<br>Slight settlement over WBL's = over liner plates. |  |               |                 |                       |       |  |  |
| Embankment   |                      |                     | 6          | 6          | Olight a      | etternen   |  |               |                 |                       |       |  |  |
| Sideslope (  | 1)                   | 3.0                 |            |            | U             |  |  |               |                 |                       |       |  |  |
| (Height of Cov   |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| Guardrail (Y/N)  |                      | Yes                 |            |            |               |  | 9 posts and 1 rail section damaged N sidephoto |               |                 |                       |       |  |  |
| Approach Road  | l / Embankme         | nt General Rat      | ing        | 6          | 6             |  |  |               |                 |                       |       |  |  |
|  |                      |                     |            |            | Upstre        | am End   |  |               |                 |                       |       |  |  |
| Culvert Compo  | nent                 |                     |            | Last       | Now           | Explan   | ation of                                       | Condi         | tion            |                       |       |  |  |
| Direction  |                      |                     |            | Ν          |               |  |  |               |                 |                       |       |  |  |
| End Treatment (Concrete, Steel, CONCRETE Others, None) |                      |                     |            | -          |               |  |  |               |                 |                       |       |  |  |
| Headwall   |                      |                     | 8          | 8          |               |  |  |               |                 |                       |       |  |  |
| Collar   |                      |                     | 8          | 8          |               |  |  |               |                 |                       |       |  |  |
| Wingwalls  |                      |                     |            | Х          | X             |  |  |               |                 |                       |       |  |  |
| (Shape : )   |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |
| (Shape : )   |                      |                     |            |            |               |  |  |               |                 |                       |       |  |  |

Alberta Transportation

|  |                             |       | Upstre | am End  |  |  |  |  |  |  |
|--|-----------------------------|-------|--------|---|--|--|--|--|--|--|
| Culvert Component                            |                             | Last  | Now    | Explanation of Condition  |  |  |  |  |  |  |
| Bevel End                                    |                             | 7     | 7      |   |  |  |  |  |  |  |
| Heaving (mm)                                 | 0                           |       |        |   |  |  |  |  |  |  |
| Invert Above/Below Stream Bed                |                             |       |        | -   |  |  |  |  |  |  |
| Above/Below (mm)                             | 0                           |       | -      |   |  |  |  |  |  |  |
| Scour Protection                             |                             | 7     | 7      |   |  |  |  |  |  |  |
| (Type : <b>RIP RAP</b> )                     |                             |       |        | -   |  |  |  |  |  |  |
| (Avg. Rock Size(mm) : 300)                   |                             |       |        |   |  |  |  |  |  |  |
| Scour/Erosion                                |                             |       | 7      |   |  |  |  |  |  |  |
| Beavers (Y/N) No                             |                             |       |        |   |  |  |  |  |  |  |
| Upstream End General Rating                  | Upstream End General Rating |       | 7      |   |  |  |  |  |  |  |
|  |                             |       | dae Cu | Ivert Barrel  |  |  |  |  |  |  |
| Culvert Component                            |                             | Last  | Now    | Explanation of Condition  |  |  |  |  |  |  |
| (Pipe # : 1, Primary Span, Loca              | tion Code: MAIN, Spa        | n (mm | ):     | , Rise (mm): 2430, Type: SP)  |  |  |  |  |  |  |
| Barrel Last Accessible Date                  | 04-Oct-2011                 |       |        | SPCSP 7 rings U/S end, 25 rings D/S end rest liner plate - liner under WBL. |  |  |  |  |  |  |
| Special Features                             |                             |       |        |   |  |  |  |  |  |  |
| Special Feature                              |                             |       |        |   |  |  |  |  |  |  |
| (Type : )                                    |                             |       |        |   |  |  |  |  |  |  |
| Special Feature                              |                             |       |        |   |  |  |  |  |  |  |
| (Туре : )                                    |                             |       |        |   |  |  |  |  |  |  |
| Roof   |                             | 7     | 7      | 2420 R2 of D/S SPCSP, c/l liner 2480, 2440 R4 of U/S SPCSP.                 |  |  |  |  |  |  |
| Measured Rise (mm)                           | 2420                        |       |        |   |  |  |  |  |  |  |
| Measured At Ring No.                         | 2                           |       |        |   |  |  |  |  |  |  |
| Sag (mm)                                     | 10                          |       |        |   |  |  |  |  |  |  |
| Percent Sag                                  |                             |       |        |   |  |  |  |  |  |  |
| Sidewall                                     |                             | 7     | 7      | 2460 R2 of D/S SPCSP, 2540 c/l liner, 2450 R4 of U/S SPCSP.                 |  |  |  |  |  |  |
| Measured Span (mm)                           | 2460                        |       |        |   |  |  |  |  |  |  |
| Measured At Ring No.                         | 2                           |       |        |   |  |  |  |  |  |  |
| Deflection (mm)                              | 30                          |       |        |   |  |  |  |  |  |  |
| Percent Deflection                           | 2                           |       |        |   |  |  |  |  |  |  |
| Floor  |                             | 6     | 6      |   |  |  |  |  |  |  |
| Bulge (mm)                                   | 0                           |       |        |   |  |  |  |  |  |  |
| Measured At Ring No.                         |                             |       |        |   |  |  |  |  |  |  |
| Abrasion (Y/N)                               | No                          |       |        |   |  |  |  |  |  |  |
| Circumferential Seams                        |                             | 8     | 8      |   |  |  |  |  |  |  |
| Separation (mm)                              | 0                           |       |        |   |  |  |  |  |  |  |
| Longitudinal Seams                           |                             | 8     | 8      |   |  |  |  |  |  |  |
| Total No. of Cracked Rings 0                 |                             |       |        |   |  |  |  |  |  |  |
| Total No. of Rings with Two<br>Cracked Seams |                             |       |        | 2N  |  |  |  |  |  |  |
| Min. Remaining Steel<br>Between Cracks (mm)  |                             |       |        | 2IN   |  |  |  |  |  |  |
| Proper Lap (Y/N) Yes                         |                             |       |        | -   |  |  |  |  |  |  |
| Longitudinal Stagger (Y/N) Yes               |                             |       | _      |   |  |  |  |  |  |  |
| Coating                                      |                             | 6     | 6      | Minor superficial on floor.   |  |  |  |  |  |  |
| Corrosion By Soil (Y/N)                      | Yes                         |       |        | -   |  |  |  |  |  |  |
| Corrosion By Water (Y/N)                     | Yes                         |       |        |   |  |  |  |  |  |  |
| Camber POS/ZERO/NEG                          | ZERO                        |       |        |   |  |  |  |  |  |  |

Alberta Transportation

Bridge Inspection & Maintenance System (Web 2005)

82053 -1 Bridge Culvert

| Bridge Culvert Barrel                               |           |      |         |  |  |  |  |  |  |
|---|-----------|------|---------|--|--|--|--|--|--|
| Culvert Component                                   |           |      | Now     | Explanation of Condition                   |  |  |  |  |  |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Spa |           |      | ):      | , Rise (mm): 2430, Type: SP)               |  |  |  |  |  |
| Ponding (Y/N) No                                    |           |      |         |  |  |  |  |  |  |
| Fish Passage Adequacy                               |           |      | 5       |  |  |  |  |  |  |
| Baffle  |           | X    | Х       |  |  |  |  |  |  |
| (Туре:)   |           |      |         |  |  |  |  |  |  |
| Waterway Adequacy                                   |           | 6    | 6       |  |  |  |  |  |  |
| Icing (Y/N)   | Yes       |      |         |  |  |  |  |  |  |
| Silting (Y/N)                                       | No        |      |         |  |  |  |  |  |  |
| Drift (Y/N)   | No        |      |         |  |  |  |  |  |  |
| Barrel General Rating                               |           | 7    | 7       |  |  |  |  |  |  |
|   |           |      | ownst   | ream End                                   |  |  |  |  |  |
| Culvert Component                                   |           | Last | Now     | Explanation of Condition                   |  |  |  |  |  |
| Direction   |           | S    |         |  |  |  |  |  |  |
| End Treatment (Concrete, Steel,<br>Others, None)    | STEEL     |      |         |  |  |  |  |  |  |
| Headwall  | 1         | Х    | Х       |  |  |  |  |  |  |
| Collar  |           |      | Х       |  |  |  |  |  |  |
| Wingwalls   | Wingwalls |      |         |  |  |  |  |  |  |
| (Shape : )  |           |      |         |  |  |  |  |  |  |
| Cutoff Wall   |           | X    | X       |  |  |  |  |  |  |
| Bevel End   |           |      | 7       |  |  |  |  |  |  |
| Heaving (mm)  | 0         |      |         |  |  |  |  |  |  |
| Invert Above/Below Stream Bed                       | BELOW     |      |         | -  |  |  |  |  |  |
| Above/Below (mm)                                    | 600       |      |         |  |  |  |  |  |  |
| Scour Protection                                    |           | 7    | 7       |  |  |  |  |  |  |
| (Type : <b>RIP RAP</b> )                            |           |      |         | -  |  |  |  |  |  |
| (Avg. Rock Size(mm) : <b>300</b> )                  |           |      |         |  |  |  |  |  |  |
| Scour/Erosion                                       |           | 7    | 7       |  |  |  |  |  |  |
| Beavers (Y/N)                                       | No        |      |         |  |  |  |  |  |  |
| Downstream End General Ration                       | ng        | 7    | 7       |  |  |  |  |  |  |
|   |           | s    | Structu | re Usage                                   |  |  |  |  |  |
|   |           | Last | Now     | Explanation of Condition                   |  |  |  |  |  |
| Channel (U/S and D/S)                               |           |      |         |  |  |  |  |  |  |
| Alignment   |           |      | 5       | 90 degree bend U/S, bends D/S.             |  |  |  |  |  |
| Bank Stability                                      |           |      | 7       |  |  |  |  |  |  |
| HWM (m below Top of Culvert)                        | 0.0       |      |         | Iced to roof at last inspection30-Oct-2009 |  |  |  |  |  |
| Drift (Y/N)   | No        |      |         |  |  |  |  |  |  |
| Channel Bottom<br>Degrading/Aggrading               |           |      |         |  |  |  |  |  |  |
| Beavers (Y/N)                                       | No        |      |         |  |  |  |  |  |  |
| (Fish Compensation Measure 1 :                      | NONE)     |      |         |  |  |  |  |  |  |
| (Fish Compensation Measure 2 :                      | NONE)     |      | _       |  |  |  |  |  |  |
| Channel General Rating                              |           |      | 5       |  |  |  |  |  |  |

| Maintenance Recommendations                   |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
|---|--|--------------------|-----------------------------|--------------------------------------|--|------------------------|--------------------------------|------|---------------|---|----------------|------------|-------|
| Inspector Recommendations                     |  | Year               | Inspector Comments          |                                      |  | Department Comments    |                                |      |               |   | Target Year    | Est. Cost  | Cat # |
| SHOTCRETE REPAIRS                             |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| PLACE ADDITIONAL RIP RAP                      |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| REMOVE DRIFT ACCUMULATION                     |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| INSTALL CONCRETE/STEEL LINING                 |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| INSTALL STRUTS                                |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| INSTALL CONCRETE COLLAR/CUTOFF                |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| REPAIR SEAMS                                  |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| OTHER ACTION                                  |  | 2011               | Replace broken GR and posts |                                      |  |                        |                                |      |               |   |                |            |       |
| OTHER ACTION                                  |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| OTHER ACTION                                  |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| OTHER ACTION                                  |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| Structural Condition Rating (Last/Now)<br>(%) |  | 77.8/77.           | 8                           | Sufficiency Rating (Last/Now)<br>(%) |  | 71                     | 1.5/71.5                       | Est. | Repl. Yr 2049 |   | Maint. Re      | eqd. (Y/N) | Yes   |
| Special<br>Comments for<br>Next Inspection    |  |                    |                             |                                      |  | Department<br>Comments |                                |      |               |   |                |            |       |
| Maintenance Reviewed By                       |  |                    |                             |                                      |  |                        | Date                           |      |               | I | Estimated Tota | I 0        |       |
| Proposed Long-Term Strategy                   |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| On 3-Year Program (Y/N)                       |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| Proposed Action                               |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| Previous Inspector's Name Wade                |  | Vade Nanninga Prev |                             |                                      |  | ous Assistant's Name   |                                |      |               |   |                |            |       |
| Next Inspection Date 04-J                     |  | 04-Jul-2013 Prev   |                             |                                      |  | ous In                 | us Inspection Date 30-Oct-2009 |      |               |   |                |            |       |
| Inspection Cycle (Default) (months) 21        |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |
| Comment                                       |  |                    |                             |                                      |  |                        |                                |      |               |   |                |            |       |