## Bridge Culvert Inspection

| | | | |
|---|---|---|---|
| Bridge File Number | 13378 -2 Bridge Culvert | Form Type | CUL1 |
| Year Built | 2005 | Lot No. | 4 |
| Bridge or Town Name | GIROUXVILLE | Inspector Name | Brian Pientsch |
| Located Over | LALBY CREEK, 8.10.58.3.4, WATERCRS-ST | Inspector Class | BR CLS A |
| | | Assistant Name | Lisbeth Medina |
| Located On | 744:04 C1 7.540 | Assistant Class | |
| Water Body Cl./Year | | Inspection Date | 02-Feb-2011 |
| Navigabil. Cl./Year | | Data Entry By | Janie Assenheimer |
| Legal Land Location | NW SEC 27 TWP 78 RGE 22 W5M | Data Entry Date | 24-Feb-2011 |
| Longitude, Latitude | -117:20:18, 55:47:27 | Reviewer Name | Arnold Assenheimer |
| Road Authority | Alberta Transportation (AIT) | Review Date | 22-Feb-2011 |
| Contract Main. Area | CMA03 | Dept. Reviewer Name | Steve Pasquan |
| Clear Roadway/Skew | 10.5 / 0 deg. | Dept. Review Date | 14-Nov-2011 |
| AADT/Year | 360 / 2010 (A) | Follow-Up By | |
| Road Classification | RAU-209-110 | | |
| Detour Length (km) | 26 | | |

### Bridge Culvert Information

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Number of Culverts | | 1 | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | 7800 | 4700 | RPA | 26.21 | 152X51 | 5.0,4.0,4.0 | ELLIPSE |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

## Utilities (Located at)

| | | | |
|---|---|---|---|
| Utility Attachments | | | |
| Telephone | | Gas | Pipe crossing road 35m south. |
| Power | | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | | | |

## Approach Road / Embankment

| | | Last | Now | Explanation of Condition |
|---|---|---|---|---|
| Horizontal Alignment | | 7 | 7 | Field access 30m S. on W. side, farm site access 30m S. on E. side. |
| Vertical Alignment | | 9 | 9 | |
| Roadway Width (m) | 9.000 | | | Erosion gully @ sw 10m long 800 dee, 500 wide. (photo) |
| Embankment | | 4 | 4 | |
| Sideslope (__:1) | 4.0 | | | |
| (Height of Cover(m) : **0.8**) | | | | |
| Guardrail (Y/N) | Yes | | | |
| **Approach Road / Embankment General Rating** | | **7** | **7** | |

## Upstream End

| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
|---|---|---|---|---|
| Direction | | E | | |
| End Treatment (Concrete, Steel, Others, None) | CONCRETE | | | |
| Headwall | | 8 | 8 | |
| Collar | | 8 | N | Under snow. |
| Wingwalls | | 8 | 8 | |
| (Shape : ) | | | | |
| Cutoff Wall | | N | N | |

| Upstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Bevel End | | 8 | 8 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 1200 | | | |
| Scour Protection | | 8 | 8 | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **300**) | | | | |
| Scour/Erosion | | 8 | 8 | |
| Beavers (Y/N) | No | | | |
| **Upstream End General Rating** | | **8** | **8** | |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 7800, Rise (mm): 4700, Type: RPA**) | | | | |
| Barrel Last Accessible Date | 02-Feb-2011 | | | (Roof & floor ratings based on inspection 2005-10-05, prior to opening dams. Oct 23, 2007) |
| **Special Features** | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Special Feature | | | | |
| (Type : ) | | | | |
| Roof | | 9 | 9 | (measured at c/l 2005/08/23-2005/10/05) |
| Measured Rise (mm) | 4654 | | | Measurements not taken due to ice on floor. |
| Measured At Ring No. | | | | |
| Sag (mm) | 0 | | | |
| Percent Sag | 0 | | | |
| Sidewall | | 9 | 9 | |
| Measured Span (mm) | 7786 | | | |
| Measured At Ring No. | 2 | | | |
| Deflection (mm) | 14 | | | Inward deflection. |
| Percent Deflection | 0 | | | |
| Floor | | N | N | Under ice. |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | No | | | |
| Circumferential Seams | | N | 8 | |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | N | 8 | |
| Total No. of Cracked Rings | 0 | | | |
| Total No. of Rings with Two Cracked Seams | 0 | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | 1n except at radius changes. |
| Proper Lap (Y/N) | Yes | | | |
| Longitudinal Stagger (Y/N) | Yes | | | |
| Coating | | N | 8 | |
| Corrosion By Soil (Y/N) | No | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | POS | | | |

| Bridge Culvert Barrel | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| (Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 7800, Rise (mm): 4700, Type: RPA**) | | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | 9 | 9 | |
| Baffle | | X | X | |
| (Type : ) | | | | |
| Waterway Adequacy | | 9 | 9 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| **Barrel General Rating** | | **9** | **9** | |

| Downstream End | | | | |
|---|---|---|---|---|
| **Culvert Component** | | **Last** | **Now** | **Explanation of Condition** |
| Direction | | W | | |
| End Treatment (Concrete, Steel, Others, None) | CONCRETE | | | |
| Headwall | | 8 | 8 | |
| Collar | | 8 | N | Under snow. |
| Wingwalls | | 8 | 8 | |
| (Shape : ) | | | | |
| Cutoff Wall | | X | N | |
| Bevel End | | 8 | 8 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 520 | | | |
| Scour Protection | | 8 | 8 | |
| (Type : **RIP RAP**) | | | | |
| (Avg. Rock Size(mm) : **300**) | | | | |
| Scour/Erosion | | 8 | 8 | |
| Beavers (Y/N) | No | | | |
| **Downstream End General Rating** | | **8** | **8** | |

| Structure Usage | | | | |
|---|---|---|---|---|
| | | **Last** | **Now** | **Explanation of Condition** |
| **Channel (U/S and D/S)** | | | | |
| Alignment | | 9 | 9 | |
| Bank Stability | | 6 | 6 | Cut banks d/s |
| HWM (m below Top of Culvert) | | | | No HWM visible. |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/Aggrading | NONE | | | |
| Beavers (Y/N) | No | | | |
| (Fish Compensation Measure 1 : **NONE**) | | | | |
| (Fish Compensation Measure 2 : **NONE**) | | | | |
| **Channel General Rating** | | **6** | **9** | |

**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 | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |
| OTHER ACTION | | | | | | |

| **Structural Condition Rating (Last/Now) (%)** | **100.0/100.0** | **Sufficiency Rating (Last/Now) (%)** | **95.5/97.8** | Est. Repl. Yr | 2060 | Maint. Reqd. (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 | Eric Carcoux | Previous Assistant's Name | | | |
| Next Inspection Date | 02-May-2014 | Previous Inspection Date | 23-Oct-2007 | | |
| Inspection Cycle (Default) (months) | 39 | | | | |
| Comment | | | | | |