

| Bridge Culvert Inspection | | | |
|---------------------------|--|---------------------|---------------------|
| Bridge File Number | 77056 -1 Bridge Culvert | Form Type | CULM |
| Year Built | 1969 | Lot No. | 4 |
| Bridge or Town Name | BEAVERLODGE | Inspector Name | Russel Vanderschaaf |
| Located Over | TRIBUTARY TO BEAVERLODGE RIVER, 8.10.58.18.8.1.4, WATERCRS-ST | Inspector Class | BR CLS B |
| Located On | 722:02 C1 29.270 | Assistant Name | |
| Water Body Cl./Year | | Assistant Class | |
| Navigabil. Cl./Year | | Inspection Date | 14-May-2010 |
| Legal Land Location | NW SEC 23 TWP 71 RGE 10 W6M | Data Entry By | Theresa Lacusta |
| Longitude, Latitude | -119:26:09, 55:10:04 | Data Entry Date | 14-Jun-2010 |
| Road Authority | Alberta Transportation (AIT) | Reviewer Name | Arnold Assenheimer |
| Contract Main. Area | CMA05 | Review Date | 07-Jun-2010 |
| Clear Roadway/Skew | 9.8 / | Dept. Reviewer Name | Steve Pasquan |
| AADT/Year | 1,080 / 2009 (A) | Dept. Review Date | 18-Aug-2010 |
| Road Classification | | Follow-Up By | |
| Detour Length (km) | 6 | | |

Bridge Culvert Information

| | | | | | | | | |
|--------------------------|--------------|------|----------------|------|--------|---------------|--------------------|-------|
| Number of Culverts | 2 | | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | - | 1200 | MP | 17.7 | | | ROUND |
| 2 | MAIN | - | 1200 | MP | 17.7 | | | ROUND |
| Special Features | BARREL ELBOW | | | | | | | |
| Special Features Comment | | | | | | | | |

Utilities (Located at)

| | | | |
|---------------------|------------------------|---------------|----|
| Utility Attachments | | | |
| Telephone | | Gas | |
| Power | 2 WIRE OVER ROAD 30M n | Municipal | |
| Others | | Problem (Y/N) | No |
| Remarks | | | |

Approach Road / Embankment

| | Last | Now | Explanation of Condition |
|--|----------|----------|--------------------------|
| Horizontal Alignment | 7 | 7 | HWY 667 10M n OF CULVERT |
| Vertical Alignment | 8 | 8 | |
| Roadway Width (m) | 9.800 | | |
| Embankment | 7 | 7 | |
| Sideslope (__:1) | 3.0 | | |
| (Height of Cover(m) : 1.3) | | | |
| Guardrail (Y/N) | No | | |
| Approach Road / Embankment General Rating | 7 | 7 | |

Upstream End

| Culvert Component | Last | Now | Explanation of Condition |
|---|-------|-----|--------------------------|
| (Pipe # : 1, Span Type: Primary Span) | | | |
| Direction | | | SOUTH CULVERT |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | |
| Headwall | X | X | |
| Collar | X | X | |
| Wingwalls | X | X | |
| (Shape :) | | | |

| Upstream End | | | | |
|---|-------------|----------|----------|--|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Span Type: Primary Span) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | N | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 100 | | | |
| Scour Protection | | N | 7 | |
| (Type : NATURAL) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| Scour/Erosion | | N | 7 | |
| Beavers (Y/N) | No | | | |
| Upstream End General Rating | | N | 7 | |
| Bridge Culvert Barrel | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP) | | | | |
| Barrel Last Accessible Date | 14-May-2010 | | | |
| Special Features | | | | |
| Special Feature | | | X | South culvert. Could only inspect 4m in, due to water/silt level. |
| (Type : BARREL ELBOW) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 5 | Could not measure rise due to silt. Est. sag. |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | |
| Sag (mm) | 80 | | | |
| Percent Sag | 7 | | | |
| Sidewall | | 7 | 5 | Shape looks ok as viewed from d/s end. 4m from u/s end. |
| Measured Span (mm) | 1280 | | | |
| Measured At Ring No. | | | | |
| Deflection (mm) | 80 | | | |
| Percent Deflection | 7 | | | |
| Floor | | N | N | Silt covered. |
| Bulge (mm) | | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | | | | |
| Circumferential Seams | | N | 6 | Rivetted |
| Separation (mm) | | | | |
| Longitudinal Seams | | X | 6 | |
| Total No. of Cracked Rings | | | | |
| Total No. of Rings with Two Cracked Seams | | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | | | | |
| Longitudinal Stagger (Y/N) | | | | |
| Coating | | 7 | 5 | Pitting rust 1/3 up pipe. |
| Corrosion By Soil (Y/N) | No | | | |
| Corrosion By Water (Y/N) | Yes | | | |

| Bridge Culvert Barrel | | | | |
|---|-------|----------|----------|--------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP) | | | | |
| Camber POS/ZERO/NEG | ZERO | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | 7 | 7 | |
| Baffle | | N | X | |
| (Type :) | | | | |
| Waterway Adequacy | | 7 | 7 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | 7 | 5 | |
| Downstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Span Type: Primary Span) | | | | |
| Direction | | | | South pipe |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls (Shape :) | | X | X | |
| Cutoff Wall | | X | X | |
| Bevel End | | N | 7 | |
| Heaving (mm) | | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | | | | |
| Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 150) | | N | 7 | |
| Scour/Erosion | | N | 7 | |
| Beavers (Y/N) | No | | | |
| Downstream End General Rating | | N | 7 | |
| Upstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 2, Span Type: Secondary Span) | | | | |
| Direction | | | | North pipe |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls (Shape :) | | X | X | |
| Cutoff Wall | | X | X | |

| Upstream End | | | | |
|--|-------------|----------|----------|--|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 2, Span Type: Secondary Span) | | | | |
| Bevel End | | N | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 100 | | | |
| Scour Protection | | N | 7 | |
| (Type : NATURAL) | | | | |
| (Avg. Rock Size(mm) :) | | | | |
| Scour/Erosion | | N | 7 | |
| Beavers (Y/N) | No | | | |
| Upstream End General Rating | | N | 7 | |
| Bridge Culvert Barrel | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP) | | | | |
| Barrel Last Accessible Date | 14-May-2010 | | | |
| Special Features | | | | |
| Special Feature | | | 6 | North pipe |
| (Type : BARREL ELBOW) | | | | Could only access 6.7m from u/s end due to water/silt. |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 5 | No rise due to silt/water. |
| Measured Rise (mm) | | | | |
| Measured At Ring No. | | | | Est sag. |
| Sag (mm) | 78 | | | |
| Percent Sag | 7 | | | |
| Sidewall | | 7 | 5 | 6.7m from u/s end. |
| Measured Span (mm) | 1278 | | | |
| Measured At Ring No. | | | | |
| Deflection (mm) | 78 | | | |
| Percent Deflection | 7 | | | |
| Floor | | N | N | Silt covered. |
| Bulge (mm) | | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | | | | |
| Circumferential Seams | | N | 6 | |
| Separation (mm) | | | | |
| Longitudinal Seams | | N | 6 | |
| Total No. of Cracked Rings | | | | |
| Total No. of Rings with Two Cracked Seams | | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | | | | |
| Longitudinal Stagger (Y/N) | | | | |
| Coating | | 7 | 5 | Pitting rust 1/3 up pipe. |
| Corrosion By Soil (Y/N) | No | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | ZERO | | | |

| Bridge Culvert Barrel | | | | |
|---|-------|----------|----------|--------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP) | | | | |
| Ponding (Y/N) | No | | | |
| Fish Passage Adequacy | | 7 | 7 | |
| Baffle | | N | X | |
| (Type :) | | | | |
| Waterway Adequacy | | 7 | 7 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | 7 | 5 | |
| Downstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 2, Span Type: Secondary Span) | | | | |
| Direction | | | | North pipe |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | N | 7 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 50 | | | |
| Scour Protection | | N | 7 | |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 150) | | | | |
| Scour/Erosion | | N | 7 | |
| Beavers (Y/N) | No | | | |
| Downstream End General Rating | | N | 7 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel (U/S and D/S) | | | | |
| Alignment | | 7 | 7 | |
| Bank Stability | | 7 | 7 | |
| HWM (m below Top of Culvert) | | | | No HWM visible |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/Aggrading | | | | Stable. |
| Beavers (Y/N) | No | | | |
| (Fish Compensation Measure 1 : NONE) | | | | |
| (Fish Compensation Measure 2 : NONE) | | | | |
| Channel General Rating | | 7 | 7 | |

| 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) (%) | 77.8/55.6 | Sufficiency Rating (Last/Now) (%) | 71.8/65.6 | Est. Repl. Yr | 2014 | 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 | Laurie McCarron | | Previous Assistant's Name | Russel Vanderschaaf | | | |
| Next Inspection Date | 14-Aug-2013 | | Previous Inspection Date | 11-Feb-2009 | | | |
| Inspection Cycle (Default) (months) | 39 | | | | | | |
| Comment | | | | | | | |