

| Bridge Culvert Inspection | | | | |
|---------------------------|-------------------------------------|--|---------------------|---------------|
| Bridge File Number | 77488 -1 Bridge Culvert | | Form Type | CUL1 |
| Year Built | 1977 | | Lot No. | 4 |
| Bridge or Town Name | CANMORE | | Inspector Name | Garry Roberts |
| Located Over | GRIZZLY CK, 2.13.56.15, WATERCRS-ST | | Inspector Class | BR CLS A |
| Located On | 40:12 C1 5.943 | | Assistant Name | |
| Water Body Cl./Year | | | Assistant Class | |
| Navigabil. Cl./Year | | | Inspection Date | 02-Apr-2013 |
| Legal Land Location | SE SEC 11 TWP 21 RGE 9 W5M | | Data Entry By | Lauren Korte |
| Longitude, Latitude | -115:08:33, 50:45:53 | | Data Entry Date | 11-Apr-2013 |
| Road Authority | Alberta Transportation (AIT) | | Reviewer Name | Tom Carey |
| Contract Main. Area | CMA28 | | Review Date | 10-Apr-2013 |
| Clear Roadway/Skew | 11.2 / | | Dept. Reviewer Name | Tim Davies |
| AADT/Year | 1,690 / 2012 (A) | | Dept. Review Date | 06-May-2013 |
| Road Classification | RAU-209-110 | | Follow-Up By | |
| Detour Length (km) | 50 | | | |

| Bridge Culvert Information | | | | | | | | |
|----------------------------|--------|------|----------------|------|--------|---------------|--------------------|---------|
| Number of Culverts | | 1 | | | | | | |
| Pipe # | Barrel | Span | Rise (or Dia.) | Type | Length | Corr. Profile | Pl./Slab Thickness | Shape |
| 1 | MAIN | 2027 | 2240 | SPE | 39.6 | 152X51 | 4.0 | ELLIPSE |
| Special Features | | | | | | | | |
| Special Features Comment | | | | | | | | |

| Utilities (Located at) | | | |
|------------------------|-------------|--|------------------|
| Utility Attachments | | | |
| Telephone | West ditch. | | Gas |
| Power | East ROW. | | Municipal |
| Others | | | Problem (Y/N) No |
| Remarks | | | |

| Approach Road / Embankment | | | | |
|--|--------|----------|----------|--------------------------|
| | | Last | Now | Explanation of Condition |
| Horizontal Alignment | | 6 | 6 | Curves both ends. |
| Vertical Alignment | | 7 | 7 | |
| Roadway Width (m) | 11.200 | | | |
| Embankment | | 7 | 7 | West side only. |
| Sideslope (_ :1) | 3.0 | | | |
| (Height of Cover(m) : 1.2) | | | | |
| Guardrail (Y/N) | Yes | | | |
| Approach Road / Embankment General Rating | | 6 | 6 | |

| Upstream End | | | | |
|---|-------|------|-----|--------------------------|
| Culvert Component | | Last | Now | Explanation of Condition |
| Direction | | E | | |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | X | X | |

| Upstream End | | | | |
|--|-------------|----------|----------|--|
| Culvert Component | | Last | Now | Explanation of Condition |
| Bevel End | | 5 | 5 | |
| Heaving (mm) | 0 | | | |
| Invert Above/Below Stream Bed | BELOW | | | |
| Above/Below (mm) | 600 | | | |
| Scour Protection | | 5 | 5 | Minor erosion at South side of bevel. |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 350) | | | | |
| Scour/Erosion | | 5 | 5 | |
| Beavers (Y/N) | No | | | |
| Upstream End General Rating | | 5 | 5 | |
| Bridge Culvert Barrel | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE) | | | | |
| Barrel Last Accessible Date | 01-Apr-2013 | | | |
| Special Features | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Special Feature | | | | |
| (Type :) | | | | |
| Roof | | 7 | 7 | |
| Measured Rise (mm) | 2187 | | | |
| Measured At Ring No. | 4 | | | |
| Sag (mm) | 53 | | | |
| Percent Sag | 2 | | | |
| Sidewall | | 6 | 6 | |
| Measured Span (mm) | 2095 | | | |
| Measured At Ring No. | 4 | | | |
| Deflection (mm) | 68 | | | |
| Percent Deflection | 3 | | | |
| Floor | | 5 | 5 | Grade steepens at R4. Rock dents along floor- worst at R9-10 D/S. |
| Bulge (mm) | 0 | | | |
| Measured At Ring No. | | | | |
| Abrasion (Y/N) | Yes | | | |
| Circumferential Seams | | 7 | 7 | |
| Separation (mm) | 0 | | | |
| Longitudinal Seams | | 6 | 6 | Minor seam bulging inward 50 mm @ some areas at upper sidewall. |
| Total No. of Cracked Rings | 0 | | | |
| Total No. of Rings with Two Cracked Seams | 0 | | | |
| Min. Remaining Steel Between Cracks (mm) | | | | |
| Proper Lap (Y/N) | No | | | |
| Longitudinal Stagger (Y/N) | No | | | |
| Coating | | 4 | 4 | Corrosion with some pitting at sides of floor at waterline corrosion stains around bolt holes. |
| Corrosion By Soil (Y/N) | Yes | | | |
| Corrosion By Water (Y/N) | Yes | | | |
| Camber POS/ZERO/NEG | NEG | | | |
| Ponding (Y/N) | No | | | |

| Bridge Culvert Barrel | | | | |
|--|-----------|----------|----------|---|
| Culvert Component | | Last | Now | Explanation of Condition |
| (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE) | | | | |
| Fish Passage Adequacy | | 6 | 6 | |
| Baffle | | X | X | |
| (Type :) | | | | |
| Waterway Adequacy | | 7 | 7 | |
| Icing (Y/N) | No | | | |
| Silting (Y/N) | No | | | |
| Drift (Y/N) | No | | | |
| Barrel General Rating | | 6 | 6 | |
| Downstream End | | | | |
| Culvert Component | | Last | Now | Explanation of Condition |
| Direction | | W | | West. |
| End Treatment (Concrete, Steel, Others, None) | STEEL | | | |
| Headwall | | X | X | |
| Collar | | X | X | |
| Wingwalls | | X | X | |
| (Shape :) | | | | |
| Cutoff Wall | | X | X | |
| Bevel End | | 5 | 5 | Corrosion with some pitting at floor bevel. |
| Heaving (mm) | 50 | | | |
| Invert Above/Below Stream Bed | ABOVE | | | |
| Above/Below (mm) | 1100 | | | |
| Scour Protection | | 7 | 7 | Cl.2 placed at D/S. |
| (Type : RIP RAP) | | | | |
| (Avg. Rock Size(mm) : 400) | | | | |
| Scour/Erosion | | 7 | 7 | |
| Beavers (Y/N) | No | | | |
| Downstream End General Rating | | 5 | 5 | |
| Structure Usage | | | | |
| | | Last | Now | Explanation of Condition |
| Channel (U/S and D/S) | | | | |
| Alignment | | 6 | 6 | |
| Bank Stability | | 6 | 6 | |
| HWM (m below Top of Culvert) | | | | No visible HWM. |
| Drift (Y/N) | No | | | |
| Channel Bottom Degrading/Aggrading | AGGRADING | | | @ D/S. |
| Beavers (Y/N) | No | | | |
| (Fish Compensation Measure 1 : NONE) | | | | |
| (Fish Compensation Measure 2 : NONE) | | | | |
| Channel General Rating | | 6 | 6 | |

| 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) (%) | 66.7/66.7 | Sufficiency Rating (Last/Now) (%) | 64.0/63.9 | Est. Repl. Yr | 2025 | 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 | 02-Jan-2015 | | Previous Inspection Date | 26-May-2011 | | | |
| Inspection Cycle (Default) (months) | 21 | | | | | | |
| Comment | | | | | | | |