

Bridge Culvert Inspection			
Bridge File Number	80695 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	4
Bridge or Town Name	GRANDE PRAIR	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO KAKWA RIVER, 8.10.58.21.2.1, WATERCRS-ST	Inspector Class	BR CLS B
Located On	40:38 C1 25.414	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Aug-2012
Legal Land Location	SE SEC 8 TWP 63 RGE 4 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:33:42, 54:26:01	Data Entry Date	25-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA05	Review Date	24-Sep-2012
Clear Roadway/Skew	10.2 / -36 deg. (LHF)	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,220 / 2011 (A)	Dept. Review Date	07-Jan-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	300		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2610	2877	SPE	62.2	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Gradual curve with good sight distance, super elevated. Steep grade est 7%. Passing both directions.
Vertical Alignment	5	5	
Roadway Width (m)	10.200		
Embankment	5	5	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 5.3)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>5</b>	<b>5</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	7	7	
Collar	N	7	
Wingwalls	X	X	
(Shape : )			
Cutoff Wall	N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	Bevel is distorted and pushed in where it meets barrel at top step 150mm on both sides.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2877, Type: SPE)</b>				
Barrel Last Accessible Date	23-Aug-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	5	2 dents at 10 & 12:00 100 mm x 100 mm @ Ring 1. (Ring 1 & 2 defl. out 200m mat 3:00 )  Perforations
Measured Rise (mm)	2822			
Measured At Ring No.	8			
Sag (mm)	6			
Percent Sag	2			
Sidewall		5	5	Perferatin at 7:00 ring 4, 90mm wide, ring 1 @ 3:00, 100mm wide.
Measured Span (mm)	2680			
Measured At Ring No.	8			
Deflection (mm)	70			
Percent Deflection	3			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.	8			
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	4	Superficial rust strip 1.2m W.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2877, Type: SPE)				
Fish Passage Adequacy		4	4	1.1m outfall at outlet.
Baffle		6	6	
(Type : )				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>5</b>	
Downstream 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	
Bevel End		N	6	Unsupported 3.5m, filled in with rock.
Heaving (mm)	0			
Invert Above/Below Stream Bed		ABOVE		Material settled along bevel 1.2m.May 26,2007
Above/Below (mm)		1100		
Scour Protection		N	6	Bevel projecting from fill by 600mm. The streambed has degraded leaving an outfall of 1.1m. Mostly sandstone.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 600)				
Scour/Erosion		N	6	
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>4</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Stream makes a 90 degree turn 20 m u/s to get into pipe.
Bank Stability		7	7	
HWM (m below Top of Culvert)				Hwm not visible.
Drift (Y/N)		No		
Channel Bottom Degrading/Aggrading		DEGRADING		Incised channel
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>6</b>	<b>6</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>44.5/46.6</b>	Est. Repl. Yr	2021	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	Russel Vanderschaaf		Previous Assistant's Name				
Next Inspection Date	23-May-2014		Previous Inspection Date	19-Feb-2010			
Inspection Cycle (Default) (months)	21						
Comment							