

Bridge Culvert Inspection			
Bridge File Number	80694 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	2
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 25.844	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Aug-2012
Legal Land Location	NW SEC 8 TWP 63 RGE 4 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:34:01, 54:26:10	Data Entry Date	26-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 / 54 deg. (RHF)	Dept. Reviewer Name	David Morrison
AADT/Year	1,220 / 2011 (A)	Dept. Review Date	10-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	-	2430	SP	167	152X51	3.0,3.0,4.0	ROUND
Special Features	SHOTCRETE BEAM							
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	No passing north bound. Steep grade but straight - est 7%.
Vertical Alignment		5	5	
Roadway Width (m)	10.200			
Embankment		N	4	Erosion gully @ NW.100 m in length, 4.0 wide and 2 m in depth. Erosion gully @ SE 400x300Dx20m grassed in.May 25, 2007
Sideslope (:1)	3.0			
(Height of Cover(m) : 14)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		Honeycomb on face.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		N	6	Snow covered.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		N	N	drift
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	6	.
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1 , Primary Span, Location Code: MAIN , Span (mm): , Rise (mm): 2430 , Type: SP)				
Barrel Last Accessible Date	23-Aug-2012			
Special Features				
Special Feature		5	5	Beam has vertical cracks on the Vert. rebar locations for a 20m long section @ 9:00 position wide crack @ R37-R43.
(Type : SHOTCRETE BEAM)				
Special Feature				
(Type :)				
Roof		6	5	Couldn't measure due to rock & high flow.
Measured Rise (mm)				
Measured At Ring No.	53			Est. upward deflection
Sag (mm)	150			
Percent Sag	2			
Sidewall		6	5	Inward deflection
Measured Span (mm)	2280			
Measured At Ring No.	53			
Deflection (mm)	150			
Percent Deflection	6			
Floor		N	5	Covered with rock.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	4N stagger
Separation (mm)	0			
Longitudinal Seams		6	6	Insufficient thread on approx 10% of bolts.
Total No. of Cracked Rings				1N Stagger at u/s end. Rings 1-4, not stagger at d/s end.
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		6	6	Minor superficial rust, 650mm wide strip on floor.
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 # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	Hanging outlet.May 26, 2007
Baffle		4	4	Concrete weirs. 1/4 of wiers spalled with rebar visible.
(Type : WEIR)				
Waterway Adequacy		5	3	U/S end covered in drift.-photo
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		5	5	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	3	Bevel pushed in 150mm. Rip-rap smaller around the pipe. Bevel hanging 1.5m.-photo
Heaving (mm)	75			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1300			
Scour Protection		N	3	Rip-rap smaller around the pipe. Mostly sandstone. Scour 8.5mWx9mLx1.8mD.-photo
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 600)				
Scour/Erosion		N	3	Scour 8.5mWx9mLx1.8mD.-photo
Beavers (Y/N)	No			
Downstream End General Rating		4	3	
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)				Hwm not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Downstream only.
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	2013	Place 50m2 Class 2 riprap d/s					
REMOVE DRIFT ACCUMULATION	2013	from u/s end.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS	2013	Repair erosion at d/s end.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	52.4/44.6	Est. Repl. Yr	2021	Maint. Req. (Y/N)	Yes
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	24-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							