

Bridge Culvert Inspection			
Bridge File Number	02153 -1 Bridge Culvert	Form Type	CUL1
Year Built	1979	Lot No.	1
Bridge or Town Name	RED EARTH CR	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO WABASCA RIVER, 8.10.18.8, WATERCRS-ST	Inspector Class	BR CLS A
Located On	88:12 C1 32.623	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	12-Jun-2012
Legal Land Location	NW SEC 35 TWP 95 RGE 9 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:20:48, 57:17:23	Data Entry Date	19-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA02	Review Date	04-Nov-2012
Clear Roadway/Skew	10.8 / -14 deg. (LHF)	Dept. Reviewer Name	David Morrison
AADT/Year	180 / 2011 (A)	Dept. Review Date	11-Jan-2013
Road Classification	RAU-210-110	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	-	5500	SP	60.4	152X51	5.0	ROUND
Special Features	HORIZ TIMB STRUTS							
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	8	8	BOTTOM OF GENTLE SAG
Vertical Alignment	7	7	
Roadway Width (m)	10.800		
Embankment	6	6	
Sideslope ( __:1)	3.0		
(Height of Cover(m) : 4)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	5	5	
Collar	5	5	
Wingwalls	X	X	
(Shape : )			
Cutoff Wall	N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		5	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
(Pipe # : <b>1, Primary Span, Location Code: MAIN, Span (mm):</b>				<b>, Rise (mm): 5500, Type: SP</b> )
Barrel Last Accessible Date	16-Jan-2007			Water to crown is 4.2m..
<b>Special Features</b>				
Special Feature		8	N	Horizontal struts at 4th - 8th rings from W. end of barrel at 2:00 & 10:00 Viewed from ends.
(Type : <b>HORIZ TIMB STRUTS</b> )				
Special Feature				
(Type : )				
Roof		N	N	Cracks in rings.-07-Nov-2008
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	Inward-07-Nov-2008
Measured Span (mm)	5017			
Measured At Ring No.	6			
Deflection (mm)	236			
Percent Deflection	4			
Floor		N	N	Water covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(12:00 SEAM CRACKED IN RINGS 4,5,6,7,8,10,11 & 12. REPAIRED WITH CONCRETE Roof Slabs @ U/S & D/S ENDS & HORIZON. Struts in C of barrel. Therefore raise rating from 2 to 4 (permanent repair). June 16, 2007
Total No. of Cracked Rings	8			
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		7	N	Viewed from ends.-16-Jan-2007
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 5500, Type: SP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			Minor drift across u/s bevel.
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Concrete placed on top of first 2 rings, full length. Rebar exposed, trees growing in it.
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		5	5	Protruding from fill 1.5m both sides.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	4	Loss of fill on South side. 2.0m long, 0.5m wide, 1.0m deep.-photo
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
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)	Yes			Across u/s bevel.
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</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	2012	Unable to inspect barrel last 2 cycles, recommend LLevel 2 inspection as per Bim Manual.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>50.5/50.5</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor 12:00 to 12th ring as East end of barrel for cracks at concrete seam. Monitor d/s sides for inward deflection.-07-Nov-2008		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	Brian Pientsch		Previous Assistant's Name	Lisbeth Medina			
Next Inspection Date	12-Mar-2014		Previous Inspection Date	05-Aug-2010			
Inspection Cycle (Default) (months)	21						
Comment							