

Bridge Culvert Inspection			
Bridge File Number	08847 -1 Bridge Culvert	Form Type	CUL1
Year Built	1982	Lot No.	1
Bridge or Town Name	RED EARTH CR	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO SENEX CREEK, 8.10.18.3.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	88:14 C1 21.001	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	12-Jun-2012
Legal Land Location	SW SEC 25 TWP 99 RGE 9 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:20:03, 57:37:02	Data Entry Date	05-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA02	Review Date	04-Nov-2012
Clear Roadway/Skew	12.8 / 10 deg. (RHF)	Dept. Reviewer Name	David Morrison
AADT/Year	180 / 2011 (A)	Dept. Review Date	14-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	3495	3854	SPE	119	152X51	4.0	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	Long sag curve.
Vertical Alignment	7	7	
Roadway Width (m)	12.800		
Embankment	7	7	
Sideslope ( __:1)	4.0		
(Height of Cover(m) : 15)			
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	E		Tag on Crown
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	X	X	
Collar	4	4	Large cracks on south side of collar seperated from culvert 50mm, concrete breaking apart.
Wingwalls	X	X	
(Shape : )			
Cutoff Wall	N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		5	5	Only top 1/2 bevel visible, water approx. 1.9M deep.
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		5	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		5	5	
Beavers (Y/N)	Yes			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3495, Rise (mm): 3854, Type: SPE)</b>				
Barrel Last Accessible Date	17-Jan-2007			Water to crown 1.9m. Viewed from ends, shape appears adequate.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	Damage to wall at 9:00 1/2 ring.2007-01-17 Between 8 & 9th ring from d/s end bulge in sidewall 9:00 position - welded.2007-01-17 @ CL
Measured Span (mm)	3770			
Measured At Ring No.				
Deflection (mm)	100			
Percent Deflection	3			
Floor		N	N	Water covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	
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	N	(Some rust on bottom plate -2000/01/12). Numerous dents in plates from compaction equipment now rusting out)
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3495, Rise (mm): 3854, Type: SPE)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	GR 7 - 17-Jan-2007
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		5	5	Protruding from fill 1.4m at the top of the bevels.
Heaving (mm)	400			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		4	4	Bevel projecting 1.4m from fill. Minor erosion along bevel edges.
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		4	4	Minor scour along bevel edge. -0.3m under 1.4m long x 0.5m deep.
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)	No			
Channel Bottom Degrading/Aggrading	NONE			Beaver house u/s 150m.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<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 access barrel last 2 inspection cycles, recommend Level 2 inspection as per bim manual.					
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>58.3/58.4</b>	Est. Repl. Yr	2026	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor concrete end treatment and d/s scour.		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							