

Bridge Culvert Inspection			
Bridge File Number	79009 -1 Bridge Culvert	Form Type	CULE
Year Built	1984	Lot No.	4
Bridge or Town Name	RAINBOW LAKE	Inspector Name	Brian Pientsch
Located Over	3RD ORDER TRIBUTARY TO SOUSA CREEK, 9.21.1.1.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	58:04 C1 29.611	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Jan-2012
Legal Land Location	SW SEC 30 TWP 110 RGE 6 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:59:34, 58:34:38	Data Entry Date	27-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA01	Review Date	26-Feb-2012
Clear Roadway/Skew	14.6 /	Dept. Reviewer Name	David Morrison
AADT/Year	740 / 2011 (A)	Dept. Review Date	30-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	999		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2700	MP	2.8	125X26	2.8	ROUND
1	MAIN	-	2400	MP	32	68X13	4.2	ROUND
1	D/S	-	2700	MP	3.6	125X26	2.8	ROUND
Special Features	CONC FLOOR							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	Fibre optic North r/w	Gas	
Power	7 wire - North r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	9	9	
Vertical Alignment	8	8	
Roadway Width (m)	15.000		
Embankment	7	7	3 m berm each side.
Sideslope ( __:1)	4.0		
(Height of Cover(m) : 1.4)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>8</b>	<b>8</b>	

**Upstream End**

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

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>8</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2700, Type: MP)				
Barrel Last Accessible Date	11-Jan-2012			
<b>Special Features</b>				
Special Feature				Concrete floor Under water/ice
(Type : )				
Special Feature				
(Type : )				
Roof		8	8	
Measured Rise (mm)	2577			@ cl above concrete floor-28-May-2010
Measured At Ring No.				1.81m ice to crown
Sag (mm)				
Percent Sag				
Sidewall		8	7	
Measured Span (mm)	2558			@ cl of u/s extension.
Measured At Ring No.				Deflection inward.
Deflection (mm)	142			
Percent Deflection	5			
Floor		N	N	Under water/ice concrete floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		9	7	Rated concrete connection to main barrel.
Separation (mm)				
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2700, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel Extension General Rating</b>		<b>8</b>	<b>7</b>	

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)					
Barrel Last Accessible Date	11-Jan-2012				
<b>Special Features</b>					
Special Feature		N	N	Under water/ice.	
(Type : <b>CONC FLOOR</b> )					
Special Feature					
(Type : )					
Roof		7	7	Est. -concrete on floor. 1.299 ice to crown	
Measured Rise (mm)	2135				
Measured At Ring No.					
Sag (mm)	265				
Percent Sag					
Sidewall		8	7	@ C.L. 200mm x 1700mm. Construction dent from 2 to 4m at u/s. Connection with the 2700mm CSP section.	
Measured Span (mm)	2502				
Measured At Ring No.					
Deflection (mm)	102				
Percent Deflection	4				
Floor		N	N	Concrete floor. Under water.	
Bulge (mm)	0				
Measured At Ring No.					
Abrasion (Y/N)	Yes				
Circumferential Seams		5	5	@D/S seam @ 12 o'clock	
Separation (mm)	125				
Longitudinal Seams		X	X		
Total No. of Cracked Rings					
Total No. of Rings with Two Cracked Seams					
Min. Remaining Steel Between Cracks (mm)					
Proper Lap (Y/N)					
Longitudinal Stagger (Y/N)					
Coating		4	4	Superficial rust lower 1/3.-28-May-2010	
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): 2400, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	150			
Scour Protection		8	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	N	Snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		5	5	Banks sloughing d/s.
HWM (m below Top of Culvert)				No HWM visible
Drift (Y/N)	No			
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>5</b>	<b>5</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>55.6/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>68.1/79.1</b>	Est. Repl. Yr	2028	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	As per Steve Pasquan if there is 1 pipe and 2 extensions, both extensions are included in one 'Bridge Culvert Barrel' part of the Inspection form. As before there was a 'Bridge Culvert Barrel' section for the main pipe and one for each extension. TL -28-May-2010		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	11-Oct-2013		Previous Inspection Date	28-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							