

Bridge Culvert Inspection			
Bridge File Number	00330 -1 Bridge Culvert	Form Type	CUL1
Year Built	1967	Lot No.	1
Bridge or Town Name	ARDROSSAN	Inspector Name	Eric Carcoux
Located Over	TRIBUTARY TO POINTE-AUX-PINS CREEK, 6.72.3, WATERCRS-ST	Inspector Class	BR CLS A
Located On	16:20 R1 5.911;16:20 L1 5.911	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Aug-2012
Legal Land Location	NE SEC 10 TWP 53 RGE 22 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:09:26, 53:34:12	Data Entry Date	17-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Stew Hagan
Contract Main. Area	CMA09	Review Date	13-Sep-2012
Clear Roadway/Skew	25 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	18,360 / 2011 (A)	Dept. Review Date	09-Oct-2012
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	1		

**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	98.8	152X51	2.8	ELLIPSE
1	D/S	2610	2877	SPE	6.1	152X51	2.8	ELLIPSE
Special Features	DROP STRUCTURE							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South r/w, North r/w in service road.	Gas	
Power	3 wires North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag U/S.		

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	Off ramp to east.
Vertical Alignment	7	7	4 lane divided and 1 service road.
Roadway Width (m)	32.800		
Embankment	6	5	Minor ditch erosion @ SW, 300 x 300mm x 30m. Grass established - no problem. Hwy is 6:1.
Sideslope (__:1)	3.0		
(Height of Cover(m) : 2.5)			
Guardrail (Y/N)	Yes		South side EB & North side. North service road (too low - 200mm).
<b>Approach Road / Embankment General Rating</b>	<b>7</b>	<b>7</b>	

**Upstream 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 : )			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	Vegetation over rock. Approx 0.3 - 0.4m of settlement beside bevel.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</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	03-Mar-2007			Viewed from end, water too deep to access, appears to be no change.
<b>Special Features</b>				
Special Feature		N	N	Median drain STEEL TRANSITION - "6". Rust covered.
(Type : <b>DROP STRUCTURE</b> )				
Special Feature				
(Type : )				
Roof		N	N	Section of SPCSP replaced with liner plate near centerline. Could not measure rise due to gravel on floor.-03-Mar-2007  (20/June/2005)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	200			
Percent Sag				
Sidewall		N	N	(3rd ring from D/S cracked on both sides, 75mm of steel remaining. 20/June/2005) (Not visible, seam under ice. Cracked ring under service road, not under Hwy. No change in measurement this inspection. 03/Mar/2007) Could not rate due to limited access (R4). R1 - 2605, R4 - 2578, beyond R4 down to D/S - silt & ice.-26-Nov- 2008
Measured Span (mm)	2810			
Measured At Ring No.				
Deflection (mm)	200			
Percent Deflection	8			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	Hole repaired in west wall, tear in liner section repaired. Minor construction damage ring 8 & 9 west wall - photo.-20-Jun-2005
Separation (mm)	30			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	1			
Min. Remaining Steel Between Cracks (mm)	75			1N Stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	Pitting in lower sections silt & water.-03-Mar-2007
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

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)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	Gravel and rocks.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>2</b>	<b>2</b>	(G.R. carried forward from 20/June/2005, longitudinal seam & sidewall governed.)
Downstream 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 : )				
Cutoff Wall		X	7	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			Dam 8m d/s.
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		8	8	
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible. Brqanches d/s.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
<b>Channel General Rating</b>		<b>5</b>	<b>8</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	Upgrade North guardrail in service road to meet standard height.					
OTHER ACTION	2012	Bridge assessment, if not completed.					
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>22.2/22.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>46.8/48.7</b>	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(Monitor cracking & deflection. Current inspection cycle adequate. No change in crack length or deflection are the same as last inspection. LRA issued but no phone call to R5 as measurements remain same as previous.-03-Mar-2007  LRA letter re-issued 27-Apr-2011, Sept 2012(R. Hussain).		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	Arnold Assenheimer		Previous Assistant's Name				
Next Inspection Date	09-May-2014		Previous Inspection Date	27-Apr-2011			
Inspection Cycle (Default) (months)	21						
Comment							