

Bridge Culvert Inspection			
Bridge File Number	77551 -1 Bridge Culvert	Form Type	CUL1
Year Built	1974	Lot No.	1
Bridge or Town Name	MACLENNAN	Inspector Name	Brian Pientsch
Located Over	WINAGAMI / GIROUXVILLE CANAL, WATERCRS-IC	Inspector Class	BR CLS A
Located On	2:56 C1 10.058	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	BR CLS B
Navigabil. Cl./Year		Inspection Date	12-Dec-2012
Legal Land Location	NW SEC 22 TWP 77 RGE 19 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-116:52:21, 55:41:26	Data Entry Date	24-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA03	Review Date	09-Jan-2013
Clear Roadway/Skew	8.9 /	Dept. Reviewer Name	David Morrison
AADT/Year	1,160 / 2011 (A)	Dept. Review Date	18-Mar-2013
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	80		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2027	MP	30.676	68X13	3.5	ROUND
Special Features	VERT STEEL STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments							
Telephone	12 m west	Gas	Crosses N. 50 m & 12m N. - Could not verify in field.				
Power	300m East 4 wires O/H.	Municipal					
Others	Waterline crosses channel 40m West of outlet.	Problem (Y/N)	No				
Remarks							

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field access 10m South @ SE & SW, TWP RD 774 250m N.
Vertical Alignment		9	9	
Roadway Width (m)	9.300			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 3)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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		6	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		5	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		5	N	Snow covered
Beavers (Y/N)	No			
Upstream End General Rating		5	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2027, Type: MP)				
Barrel Last Accessible Date	12-Dec-2012			Ice to roof =952mm
Special Features				
Special Feature		N	6	
(Type : VERT STEEL STRUTS)				
Special Feature				
(Type :)				
Roof		N	2	Est.
Measured Rise (mm)				Measurements not taken due to ice on floor.
Measured At Ring No.				
Sag (mm)	400			
Percent Sag	19			
Sidewall		N	2	
Measured Span (mm)	2533			
Measured At Ring No.	25			
Deflection (mm)	506			
Percent Deflection	25			
Floor		N	N	Under ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	5	
Separation (mm)	100			
Longitudinal Seams		N	5	Riveted.
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)	Yes			
Coating		3	3	Rust on bottom 1/2, deep pitting/scaling. Also rust stains coming through seams. Rating based on visible portions u/s & d/s.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2027, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	Increase of +1 due to struts being in place more than 2 years.
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	6	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Downstream End General Rating		5	6	
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)				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)				
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							
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Liner or culvert replacement as per assessment completed Dec/2006.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.9/47.0	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	AT (David Morrison) advised of low rating 12-Dec-2012. Assessment completed Dec/06 - line recommended.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	12-Sep-2014		Previous Inspection Date	18-Jul-2012			
Inspection Cycle (Default) (months)	21						
Comment							