Bridge Culvert Inspection

Bridge File Number	72299 -1 Bridge Culvert	Form Type	CUL1
Year Built	1982	Lot No.	2
Bridge or Town Name	WOKING	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO KAKUT CK, 8.10.58.11.3.8, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	677:04 C1 12.247	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Nov-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 26 TWP 76 RGE 4 W6M	Data Entry Date	14-Dec-2011
Longitude, Latitude	-118:30:16, 55:36:25	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	20-Nov-2011
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	11 / -30 deg. (LHF)	Dept. Review Date	10-Jan-2012
AADT/Year	110 / 2010 (A)	Follow-Up By	
Road Classification	RCU-211-110		
Detour Length (km)	10		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	46	68X13	3.5,2.8,2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	South-R/W	Gas	20m e. of pipe across road
Power	North r/w, 1 wire, 20mE	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Approach 50m East
Vertical Alignment		8	8	
Roadway Width (m)	11.000			
Embankment		8	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

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

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	5	
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	4	Erosion around bevel
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	4	Erosion around bevel
Beavers (Y/N)	Yes			Dam 5m U/S.
Upstream End General Rating		**7**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	08-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	estimated Sagging, unable to measure rise due to mud/ice on floor.
Measured Rise (mm)	1660			
Measured At Ring No.				
Sag (mm)	140			
Percent Sag	8			
Sidewall		4	4	@ C.L. 6.5% deflection inward.
Measured Span (mm)	1916			
Measured At Ring No.				
Deflection (mm)	116			
Percent Deflection	7			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	5	
Separation (mm)	70			
Longitudinal Seams		5	5	rivetted seams
Total No. of Cracked Rings	0			
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	pitting rust 4-8 o'clock
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
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): 1800, Type: MP**)				
Fish Passage Adequacy		7	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

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	X	
Bevel End		7	6	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		7	4	Channel eroding near bevel.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	4	Channel eroding near bevel.
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	4	West end of beaverdam removed, realigning the channel to enter the culvert from the West.
Bank Stability		8	6	
HWM (m below Top of Culvert)				HWM NOT VISIBLE.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Beaverdam 5m u/s of culvert.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**4**	

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	Remove beaverdam to realign channel				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**62.7/57.2**	Est. Repl. Yr	2027	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	08-Feb-2015	Previous Inspection Date	29-Aug-2008		
Inspection Cycle (Default) (months)	39				
Comment					