Bridge Culvert Inspection

Bridge File Number	80924 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	2
Bridge or Town Name	ATIKAMEG	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO UTIKUMA RIVER, 8.10.18.22.4.1.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	88:06 C1 11.483	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Jun-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 2 TWP 83 RGE 9 W5M	Data Entry Date	16-Oct-2012
Longitude, Latitude	-115:18:17, 56:10:04	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	08-Oct-2012
Contract Main. Area	CMA02	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	10.3 /	Dept. Review Date	10-Jan-2013
AADT/Year	760 / 2011 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	450		

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	67	125X26	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	15m along West ditch.	Gas	
Power	2 wire O/H 20m West.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On a gradual curve with good sight distance, superelevated.
Vertical Alignment		7	7	
Roadway Width (m)	10.200			
Embankment		4	4	Ditch erosion at SW (2.0m x 15.0m long x 1.0m) and NW (40.0m x 2.0m x 1.0m) SE 10 x 0.2 x 0.1m. Areas are grassed in.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

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	11-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	At c/l.
Measured Rise (mm)	1797			
Measured At Ring No.				
Sag (mm)	3			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	1809			At c/l.
Measured At Ring No.				
Deflection (mm)	9			
Percent Deflection	1			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	Couplers are bolted to barrel.
Separation (mm)	110			Measured at first seam.
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	Some pitting rust on floor, 600mm wide strip.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
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		3	3	Outfall of 600mm at outlet - photo.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Downstream scour. (1/2 full of ice at D/S end. 05/05/13)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		3	3	Unsupported for 1.5m.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	600			
Scour Protection		3	3	Bevel projecting 1.9m from fill 3 x 3 scour hole - photo.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		3	3	Erosion 2.5m long x 1m deep x 0.6m wide on North and South sides of bevel.
Beavers (Y/N)	No			
Downstream End General Rating		**3**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Sharp bend @ U/S end.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Insized channel.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2012	20m3 Class I, 10m3 6-80.				
REMOVE DRIFT ACCUMULATION						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**50.7/50.5**	Est. Repl. Yr	2029	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina
Next Inspection Date	11-Mar-2014	Previous Inspection Date	04-Aug-2010
Inspection Cycle (Default) (months)	21		
Comment			