Bridge Culvert Inspection

Bridge File Number	07395 -1 Bridge Culvert	Form Type	CUL1
Year Built	1994	Lot No.	2
Bridge or Town Name	ETZIKOM	Inspector Name	Tom Carey
Located Over	TRIBUTARY TO SEVEN PERSONS CREEK, 2.7.1.11, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	885:04 C1 23.449	Assistant Class	
Water Body Cl./Year		Inspection Date	13-Mar-2012
Navigabil. Cl./Year		Data Entry By	Anne Roberts
Legal Land Location	SW SEC 25 TWP 8 RGE 9 W4M	Data Entry Date	10-Apr-2012
Longitude, Latitude	-111:06:39, 49:40:15	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	25-Mar-2012
Contract Main. Area	CMA24	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9.8 / 30 deg. (RHF)	Dept. Review Date	17-Apr-2012
AADT/Year	230 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3000	MP	57	125X26	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West side.	Gas	
Power	1 line East side.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		7	7	
Roadway Width (m)	9.800			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West
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		N	3	SW corner of West bevel is folded up 700 mm and in 800 mm
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	5	Rock is undersized
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**3**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Barrel Last Accessible Date	13-Mar-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Est
Measured Rise (mm)	2980			
Measured At Ring No.	4			
Sag (mm)	20			
Percent Sag	1			
Sidewall		8	8	
Measured Span (mm)	3000			
Measured At Ring No.	4			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	Average 600 mm deep ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	50			
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	4	Corrosion with pitting at top exterior of roof both ends
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 3000, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	4	U/S bevel damage
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

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		8	8	Iced over
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		N	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	Dugout 70m U/S.
Bank Stability		8	8	
HWM (m below Top of Culvert)				(HWM .8m) 02/07/09 HWM not 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		**8**	**8**	

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	Replace West bevel end or cut 1.0 m of the damaged end off and fill area at stream with Cl. 1 rock				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**88.2/71.0**	Est. Repl. Yr	2042	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	Tim Davies	Previous Assistant's Name	
Next Inspection Date	13-Jun-2015	Previous Inspection Date	09-Feb-2009
Inspection Cycle (Default) (months)	39		
Comment			