Bridge Culvert Inspection

Bridge File Number	74597 E-1 Bridge Culvert	Form Type	CUL1
Year Built	1992	Lot No.	4
Bridge or Town Name	COCHRANE	Inspector Name	Garry Roberts
Located Over	MUNICIPAL	Inspector Class	BR CLS A
Located On	1:06 R1 10.460	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Feb-2012
Legal Land Location	SW SEC 2 TWP 25 RGE 5 W5M	Data Entry By	Erin Roberts
Longitude, Latitude	-114:36:11, 51:05:56	Data Entry Date	14-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Tom Carey
Contract Main. Area	CMA28	Review Date	22-Feb-2012
Clear Roadway/Skew	12.5 /	Dept. Reviewer Name	Tim Davies
AADT/Year	18,200 / 2010 (A)	Dept. Review Date	22-Mar-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	4900	4600	BPR	36.3			RECTANGLE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)		UNDER: MUNICIPAL 4.4m									
Posted Vertical Clearance (Y/N)		Yes									
Posted:	Lane	NB	On Bridge (m)	4.5	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	4.5	In Advance (Y/N)	Yes
Remarks	Restricted visibility/keep right & 15 km/h. S/B posting is on W/B culvert.										

Utilities (Located at)

Utility Attachments			
Telephone	South ditch	Gas	
Power	South ROW.	Municipal	
Others	Fibre optic in area - @ North row	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Merge lanes to West.
Vertical Alignment		6	6	Crest curve to the East limits visibility. Hermitage Road.
Roadway Width (m)	12.500			
Embankment		7	7	
Sideslope (__:1)	2.0			
(Height of Cover(m) : **0.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				North
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	DIAGONAL CRACKS

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		7	7	hairline cracks common wall with 74597W
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		X	X	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	X	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4900, Rise (mm): 4600, Type: BPR**)				
Barrel Last Accessible Date	11-Feb-2012			
Special Features				
Special Feature				Safety Rail
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Roof has narrow transverse cracks
Measured Rise (mm)	4600			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	Vertical crack to 0.5 mm every 1.5m approx with leaching
Measured Span (mm)	4900			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	30			
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)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4900, Rise (mm): 4600, Type: BPR**)				
Coating		6	6	Barrel walls coated with pigmented sealer - grey
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
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				South
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		X	X	
Wingwalls		6	6	Diagonal cracking at both walls initiating at top towards barrel with leaching. 0.5 mm WIDE
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		X	X	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		X	X	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		5	5	Posted for 15 km/hr, 4.9 m clear r/w. Posted "restricted visibility keep right".
Roadway Surface		6	6	
(Type :)				Gravel approaches
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		6	6	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**5**	**5**	

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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**75.8/75.8**	Est. Repl. Yr	2048	Maint. Reqd. (Y/N)	No

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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	11-Nov-2013	Previous Inspection Date	15-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					