Bridge Culvert Inspection

Bridge File Number	73939 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	CARSELAND	Inspector Name	Tom Carey
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	24:02 C1 37.540	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	20-Feb-2013
Legal Land Location	SE SEC 32 TWP 21 RGE 25 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-113:25:35, 50:49:16	Data Entry Date	19-Mar-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA30	Review Date	03-Mar-2013
Clear Roadway/Skew	22 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,770 / 2011 (A)	Dept. Review Date	25-Mar-2013
Road Classification	RAU-213-120	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2330	2570	SPE	46.9	152X51	3.0,3.0,3.0	ELLIPSE
Special Features		CONC FLOOR						
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)		No									
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required										

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 line - west 30 m from c.l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curves south and north. 14m road, 8m service road goes thru highway and W. service road. Road @ median over pipe also
Vertical Alignment		6	6	
Roadway Width (m)	22.000			
Embankment		5	5	
Sideslope (__:1)	2.0			
(Height of Cover(m) : **0.9**)				
Guardrail (Y/N)	Yes			On east side.
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Snow covered.
Above/Below (mm)	150			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
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): 2330, Rise (mm): 2570, Type: SPE**)				
Barrel Last Accessible Date	20-Feb-2013			
Special Features				
Special Feature			N	Covered with 50 mm dirt
(Type : **CONC FLOOR**)				
Special Feature				
(Type :)				
Roof		7	7	Rip in roof at ring 5. Has been patch welded on outside with piece of pipe. Estimate ice
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		8	8	INWARD
Measured Span (mm)	2280			
Measured At Ring No.	5			
Deflection (mm)	50			
Percent Deflection	2			
Floor		N	N	CONCRETE floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2330, Rise (mm): 2570, Type: SPE**)				
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	SUPERFICIAL CORROSION. @ SOIL LINE @ FLR IN BARREL.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Snow covered
Above/Below (mm)	150			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	
Roadway Surface		7	7	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		7	7	Takes some drainage west to east.
Structure In Use (Y/N)	Yes			
Grade Separation 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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**82.8/82.8**	Est. Repl. Yr	2031	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	Tom Carey	Previous Assistant's Name			
Next Inspection Date	20-Nov-2014	Previous Inspection Date	20-May-2011		
Inspection Cycle (Default) (months)	21				
Comment					