Bridge Culvert Inspection

Bridge File Number	77385 -1 Bridge Culvert	Form Type	CUL1
Year Built	1971	Lot No.	4
Bridge or Town Name	CZAR	Inspector Name	Jason Saly
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	41:14 C1 45.051	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Nov-2012
Legal Land Location	NW SEC 22 TWP 39 RGE 6 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-110:47:16, 52:22:24	Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA22	Review Date	14-Dec-2012
Clear Roadway/Skew	11.4 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	850 / 2011 (A)	Dept. Review Date	17-Jan-2013
Road Classification	RAU-211.8-110	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	2082	2311	RPP	35.4	152X51	3.5	PIPE ARCH
Special Features								
Special Features Comment								

Posting Information

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

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	3 wires OH East fenceline.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Intersection 100m North. At curve with super elevation, good sight distance, crest curve with no passing SB to the South.
Vertical Alignment		6	6	
Roadway Width (m)	11.400			
Embankment		N	N	Snow covered.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.2**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	X	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	Previous GR was 7 from 17Aug2009.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2082, Rise (mm): 2311, Type: RPP**)				
Barrel Last Accessible Date	26-Nov-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Concrete floor & dirt, therefore could not measure rise.
Measured Rise (mm)	2240			
Measured At Ring No.				
Sag (mm)	71			Estimated
Percent Sag	3			
Sidewall		7	5	Span at R3=2022=60mm=2.9% Span at R6=2041=41mm Span at R9=2034=48mm Deflection inwards.
Measured Span (mm)	2028			
Measured At Ring No.	3			
Deflection (mm)	54			2.9%
Percent Deflection	3			
Floor		N	N	Covered with dirt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		5	5	There are 2 missing bolts along the lower long. seam, N side.
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	Minor surface rust @ sidewall South side, West end (no problem).
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2082, Rise (mm): 2311, Type: RPP**)				
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		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Squared end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	X	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**N**	Previous GR was 7 from 17Aug2009.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		8	8	Silt, sand, manure covering concrete.
Roadway Surface		N	N	
(Type : **CONCRETE**)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	None			
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Drainage		7	7	
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**72.5/68.6**	Est. Repl. Yr	2034	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)	N				
Proposed Action	2007.05.19 Check site again in two years to determine continued usage.				
Previous Inspector's Name	Jason Saly	Previous Assistant's Name			
Next Inspection Date	26-Aug-2014	Previous Inspection Date	08-Mar-2011		
Inspection Cycle (Default) (months)	21				
Comment					