Bridge Culvert Inspection

Bridge File Number	09758 -1 Bridge Culvert	Form Type	CUL1
Year Built	1956	Lot No.	1
Bridge or Town Name	CHAMPION	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO LONG COULEE CREEK, 2.12.12.9.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	529:04 C1 9.378	Assistant Class	
Water Body Cl./Year		Inspection Date	06-Mar-2010
Navigabil. Cl./Year		Data Entry By	Kelsey Roberts
Legal Land Location	SE SEC 13 TWP 15 RGE 23 W4M	Data Entry Date	24-Mar-2010
Longitude, Latitude	-113:02:02, 50:15:07	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	11-Mar-2010
Contract Main. Area	CMA25	Dept. Reviewer Name	Lorenz Bohnert
Clear Roadway/Skew	8.9 /	Dept. Review Date	26-Mar-2010
AADT/Year	310 / 2008 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2620	2880	SPE	39.5	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	south ditch 25m W.	Gas	
Power	north ditch 2 line. 1 line crossing 200m W	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	7	POOR SIGHT BOTH DIRECTIONS
Vertical Alignment		5	6	
Roadway Width (m)	8.900			
Embankment		7	7	
Sideslope (__:1)	2.5			
(Height of Cover (m) : **4**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**5**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		NORTH
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)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	4	Undermining on west side of U/S bevel- 400mm wide by 1m deep.
(Type : **RIP RAP**)				
(Avg. Rock Size (mm) : **250**)				
Scour/Erosion		6	4	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2620, Rise (mm): 2880, Type: SPE**)				
Barrel Last Accessible Date	06-Mar-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	Measured sag @ R10- 2625mm- Photo
Measured Rise (mm)	2625			
Measured At Ring No.	10			
Sag (mm)	255			
Percent Sag	9			
Sidewall		3	3	Measured deflection @ R7- 2890mm- photo
Measured Span (mm)	2890			
Measured At Ring No.	7			
Deflection (mm)	270			
Percent Deflection	10			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		3	3	CRACKED E.SIDEWALL - see photo 60mm of steel remaining in east seam of Ring 5. West side is properly lapped Cracking see in rings 5 thru 11 on east sidewall.
Total No. of Cracked Rings	7			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)	60			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	(Corrosion with pitting on floor) 23-Feb-2007
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
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): 2620, Rise (mm): 2880, Type: SPE**)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**3**	**3**	10% deflection in R7

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		South
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	Bevel is 300mm abov top of water
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	400			
Scour Protection		5	5	Large amount of rock d/s of scour hole Large scour hole 7mx10mxest 1.5m rock lined
(Type : **RIP RAP**)				
(Avg. Rock Size (mm) : **300**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	6	
HWM (m below Top of Culvert)				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		**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) (%)	**33.3/33.3**	**Sufficiency Rating (Last/Now) (%)**	**53.2/49.4**	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	There has been no change since last inspection in June 2003. Struts not reg. with 10% deflection.	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	06-Jun-2013	Previous Inspection Date	23-Feb-2007		
Inspection Cycle (Default) (months)	39				
Comment					