Bridge Culvert Inspection

Bridge File Number	09077 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	4
Bridge or Town Name	CARDSTON	Inspector Name	Jon Davies
Located Over	BULLHORN COULEE, 2.12.22.12.3, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	LOCAL ROAD	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Dec-2012
Navigabil. Cl./Year		Data Entry By	Kelsey Roberts
Legal Land Location	NE SEC 27 TWP 3 RGE 26 W4M	Data Entry Date	05-Jan-2013
Longitude, Latitude	-113:25:08, 49:14:41	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	16-Dec-2012
Contract Main. Area	CMA25	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9 / -20 deg. (LHF)	Dept. Review Date	08-Jan-2013
AADT/Year	125 / 1993 (E)	Follow-Up By	
Road Classification	RLU-208-100		
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	6500	4500	RPE	33.5		4.0,5.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	S.DITCH	Gas	TO WEST 160M.
Power	TO WEST 50 M. 1 WIRE	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	MIDDLE OF CURVE
Vertical Alignment		6	6	BOTTOM OF SAG
				barbed wire fence & 5 delineators
Roadway Width (m)	10.500			
Embankment		8	5	Cattle tracking at U/S end behind wingwall creating drainage swale.
Sideslope (__:1)	3.0			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	Buried
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6500, Rise (mm): 4500, Type: RPE**)				
Barrel Last Accessible Date	09-Dec-2012			Barrel too large to measure.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Shape looks very good.
Measured Rise (mm)	4440			
Measured At Ring No.	4			
Sag (mm)	60			Est.
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	6544			
Measured At Ring No.	4			
Deflection (mm)	44			Est.
Percent Deflection				
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.	4			
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			@ haunches
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Minor superficial corrosion on the floor
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6500, Rise (mm): 4500, Type: RPE**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
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		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	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		4	4	Turn sharp into the pipe upstream Scouring u&d/s - grassed in
Bank Stability		4	5	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**4**	

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) (%)**	**81.0/81.0**	Est. Repl. Yr	2045	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	Tim Davies	Previous Assistant's Name			
Next Inspection Date	09-Sep-2017	Previous Inspection Date	18-Sep-2007		
Inspection Cycle (Default) (months)	57				
Comment					