Bridge Culvert Inspection

Bridge File Number	86038 -1 Bridge Culvert	Form Type	CULE
Year Built	2006	Lot No.	4
Bridge or Town Name	CLEARDALE	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO EUREKA RIVER, 8.10.93.4.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	64:02 C1 36.542	Assistant Class	
Water Body Cl./Year		Inspection Date	03-Nov-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 11 TWP 85 RGE 10 W6M	Data Entry Date	22-Nov-2011
Longitude, Latitude	-119:28:38, 56:21:32	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	20-Nov-2011
Contract Main. Area	CMA04	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	10 / 22 deg. (RHF)	Dept. Review Date	09-Jan-2012
AADT/Year	420 / 2010 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	999		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2400	MP	21	125X26	2.8	ROUND
1	MAIN	-	1981	SSP	64		12.7	ROUND
1	D/S	-	2400	MP	45	125X26	2.8	ROUND
Special Features		BARREL ELBOW						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	North of highway	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Bottom of sag curve. No passing east bound.
Vertical Alignment		6	6	
Roadway Width (m)	10.000			
Embankment		5	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **15.1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	400			
Scour Protection		4	4	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Erosion 3m long x 0.4m deep at end of rock riprap.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2400, Type: MP**)				
Barrel Last Accessible Date	04-Nov-2010			
Special Features				
Special Feature		8	8	
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	2408			
Measured At Ring No.				@ cl
Sag (mm)	8			
Percent Sag				
Sidewall		8	7	
Measured Span (mm)	2368			@ cl
Measured At Ring No.				
Deflection (mm)	30			Deflection inward.
Percent Deflection	1			
Floor		7	6	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	6	Minor construction dent at 11 o'clock. Approx. 2m from connection with WSP.
Separation (mm)	80			
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)				
Coating		8	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2400, Type: MP**)				
Ponding (Y/N)	No			
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 Extension General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1981, Type: SSP**)				
Barrel Last Accessible Date	23-Feb-2010			Iced up, viewed from u/s end.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	
Measured Rise (mm)	1969			approx @ cl
Measured At Ring No.				
Sag (mm)	12			Deflection upward.-23-Feb-2010
Percent Sag				
Sidewall		6	N	
Measured Span (mm)	1941			Approx @ cl
Measured At Ring No.				
Deflection (mm)	40			Deflection inward.-23-Feb-2010
Percent Deflection	2			
Floor		6	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)				
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)				
Coating		5	5	Superficial corrosion
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1981, Type: SSP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	7	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	GR was '6' on 23-Feb-2010

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		X	8	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		7	N	Covered with 1.2m water.
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		7	N	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	No evident problems-23-Feb-2010
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**N**	GR was 7 90 23-Feb-2010

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		3	4	Scour d/s 25m @1219mm WSP outlet.(15X4m) Rock Island 5m d/s 1219mm outlet. (5 X 10m)
HWM (m below Top of Culvert)				HWM not visable.
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		**3**	**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) (%)	**66.7/77.8**	**Sufficiency Rating (Last/Now) (%)**	**67.2/68.0**	Est. Repl. Yr	2060	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor d/s erosion. Monitor u/s erosion at end of rock riprap.	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina		
Next Inspection Date	03-Aug-2013	Previous Inspection Date	23-Feb-2010		
Inspection Cycle (Default) (months)	21				
Comment					