

Bridge Culvert Inspection			
Bridge File Number	82123 -2 Bridge Culvert	Form Type	CULM
Year Built	2003	Lot No.	4
Bridge or Town Name	TWO HILLS	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.28, WATERCRS-ST	Inspector Class	BR CLS A
Located On	36:20 C1 24.645	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Jan-2013
Legal Land Location	SW SEC 7 TWP 54 RGE 12 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:46:16, 53:38:49	Data Entry Date	22-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	19-Jan-2013
Clear Roadway/Skew	11.3 / -30 deg. (LHF)	Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,290 / 2011 (A)	Dept. Review Date	24-Jan-2013
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2400	MP	46	125X26	2.8	ROUND
2	MAIN	-	2400	MP	46	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	1 wire OH @ East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	9	8	Blind crest curve 300m South.
Vertical Alignment	7	7	Gradual hill 500m North.
Roadway Width (m)	11.300		
Embankment	N	N	(West embankment has gully erosion from lack of vegetation. 23/May/2006). Snow covered.
Sideslope (__:1)	6.0		
(Height of Cover(m) : 1.7)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type:)			
Direction	E		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type:)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		N	N	Snow covered but no sign of problem.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 350)				
Scour/Erosion		N	N	
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): , Rise (mm): 2400, Type: MP)				
Barrel Last Accessible Date	10-Jan-2013			S pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimated
Percent Sag	1			
Sidewall		8	8	Span at W end=2407=7mm Span at mid=2413=13mm Span at E end=2415=15mm=0.6%
Measured Span (mm)	2415			
Measured At Ring No.				
Deflection (mm)	15			0.6%
Percent Deflection	1			
Floor		N	N	Iced over.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	65			
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			Minor.
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): , Rise (mm): 2400, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	8	(Silt will easily flush in a flood. 28Mar2008).
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)				
Barrel Last Accessible Date	10-Jan-2013			N pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Not measured due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimated
Percent Sag	1			
Sidewall		8	8	Span at W end=2394=6mm Span at mid=2395=5mm Span at E end=2386=14mm=0.6%
Measured Span (mm)	2306			
Measured At Ring No.				
Deflection (mm)	14			Inwards 0.6%
Percent Deflection	1			
Floor		N	N	Ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			(28/Mar/2008)
Circumferential Seams		7	7	
Separation (mm)	90			
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			Minor
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)					
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		8	8		
Baffle		X	X		
(Type :)					
Waterway Adequacy		9	8	(Silt will easily flush in a flood. 28/Mar/2008)	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		8	8		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type:)					
Direction		W			
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		8	8		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	600				
Scour Protection		N	N	Snow covered but no sign of problems.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 350)					
Scour/Erosion		N	N	(Gullies developing around rock apron. 23/May/2006)	
Beavers (Y/N)	No				
Downstream End General Rating		8	8		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		7	7	Sharp bend @ 20m U/S. No problem.	
Bank Stability		8	8		
HWM (m below Top of Culvert)				HWM not visible.	
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading	NONE			(28Mar2008). Snow covered.	
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					

Structure Usage				
		Last	Now	Explanation of Condition
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) (%)	88.9/88.9	Sufficiency Rating (Last/Now) (%)	90.4/87.0	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	(AT to confirm road authority; looks like AT should be the road authority. AT to check this culvert form (CULM); only 1 u/s & d/s end section, should be 2 u/s & d/s end sections for CULM form for 2 separate metal culverts. 28Mar2008).		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	Dave Lam		Previous Assistant's Name				
Next Inspection Date	10-Oct-2014		Previous Inspection Date	08-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							