

Bridge Culvert Inspection			
Bridge File Number	73582 -1 Bridge Culvert	Form Type	CULM
Year Built	1965	Lot No.	1
Bridge or Town Name	MORECAMBE	Inspector Name	Jason Saly
Located Over	2ND ORDER TRIBUTARY TO VERMILION RIVER, 6.5.23.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	45:08 C1 20.946	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Dec-2012
Legal Land Location	SE SEC 18 TWP 54 RGE 10 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:27:17, 53:39:50	Data Entry Date	03-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	20-Dec-2012
Clear Roadway/Skew	9.4 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	570 / 2011 (A)	Dept. Review Date	03-Jan-2013
Road Classification	RAU-209-110	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	-	1200	MP	23	68X13	2.8	ROUND
2	MAIN	-	1200	MP	23	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	In South ditch.	Gas	
Power	3 wires O/H 25m North.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Hwy 870 intersection 250m West.
Vertical Alignment	7	7	Hill to West & crest to E with limited sight distance.
Roadway Width (m)	9.400		
Embankment	8	N	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 2)			(East pipe 1.4m cover. 07Jun2011) - Snow covered.
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	N		West pipe.
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: Primary Span)				
Cutoff Wall		X	X	
Bevel End		6	N	(Appears to be patched with tar. 07Jun2011).
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		7	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Upstream End General Rating		6	N	GR carried forward from 07Jun2011.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	15-Aug-2009			West pipe. Viewed from ends. Pipe appears in poor shape. Water piping along culvert.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		3	3	Rating carried forward.
Measured Rise (mm)				
Measured At Ring No.	3			(Estimated, 500mm silt on floor. 07Jun2011).
Sag (mm)	130			(10.8%. 15Aug2009).
Percent Sag	11			
Sidewall		3	3	(S. wall sounds hollow through R2-3. 50mm vertical separation @ R1. 15Aug2009). Rating carried forward.
Measured Span (mm)	1330			
Measured At Ring No.	3			(10.8%. 15Aug2009).
Deflection (mm)	130			
Percent Deflection	11			
Floor		N	N	(500mm silt on floor. 07Jun2011).
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		3	N	(Ring 1 coupler seam infiltration from roof & sidewall. 07Jun2011).
Separation (mm)	50			
Longitudinal Seams		6	N	Riveted bevel sections.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	N	
Corrosion By Soil (Y/N)				
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): 1200, Type: MP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			(Water ponding at midpipe. 07Jun2011).
Fish Passage Adequacy		4	N	(Fish impeded due to bevel heaving, but fish are unlikely. 07Jun2011).
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	N	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		3	3	GR carried forward from 15Aug2009 based on roof & sidewall ratings.

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		W pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	N	(Water flowing under d/s bevel. 07Jun2011).
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		5	N	GR carried forward from 07Jun2011.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East pipe.
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 # : 2, Span Type: Secondary Span)				
Cutoff Wall		X	X	
Bevel End		4	N	(Bevel heaving badly, built that way. 07Jun2011).
Heaving (mm)	500			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	600			
Scour Protection		5	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Upstream End General Rating		4	4	GR carried forward from 07Jun2011 based on bevel rating.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	15-Aug-2009			(Pipe viewed from ends. 07Jun2011).
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)	1150			
Measured At Ring No.	3			
Sag (mm)	50			(4.1 %. 15Aug2009).
Percent Sag	4			
Sidewall		N	N	
Measured Span (mm)	1260			
Measured At Ring No.	3			
Deflection (mm)	60			(15Aug2009)
Percent Deflection	5			
Floor		N	N	(03/03/25)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Some infiltration & separation. 07Jun2011).
Separation (mm)	135			
Longitudinal Seams		7	N	Riveted bevel sections.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	N	(Minor superficial. 07Jun2011).
Corrosion By Soil (Y/N)	No			
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): 1200, Type: MP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			(At midpipe. 07Jun2011).
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	N	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		5	5	GR carried forward since 15Aug2009 based on sidewall rating.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	N	
Heaving (mm)	250			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		5	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Downstream End General Rating		5	N	GR was 5 from 07Jun2011 based on scour protection.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	N	Snow covered.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		6	6	

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	2013	Assessment, if not yet done.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	39.1/57.8	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Inspect at 12mth cycle until repaired/replaced. Found N end of one pipe, not sure which pipe.		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	Jason Saly		Previous Assistant's Name				
Next Inspection Date	14-Sep-2014		Previous Inspection Date	07-Jun-2011			
Inspection Cycle (Default) (months)	21						
Comment							