

Bridge Culvert Inspection				
Bridge File Number	75629 -1 Bridge Culvert		Form Type	CULM
Year Built	1962		Lot No.	2
Bridge or Town Name	WARBURG		Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO STRAWBERRY CREEK, 6.112.12, WATERCRS-ST		Inspector Class	BR CLS B
Located On	39:08 C1 10.634		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Jan-2013
Legal Land Location	SW SEC 1 TWP 49 RGE 3 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:18:24, 53:11:33		Data Entry Date	05-Feb-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11		Review Date	10-Jan-2013
Clear Roadway/Skew	11.3 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,800 / 2011 (A)		Dept. Review Date	14-Feb-2013
Road Classification	RAU-211.8-110		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	1830	1120	FP	24.4	68X13	2.8	ARCH
2	MAIN	-	760	MP	24.4	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	North r/w.		Gas	
Power	3 wires 15m from c/l North r/w.		Municipal	
Others			Problem (Y/N)	No
Remarks	Tagged on S side.			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	Farm entrance to SE.
Vertical Alignment	8	8	
Roadway Width (m)	11.300		
Embankment	7	7	
Sideslope (__:1)	4.0		
(Height of Cover(m) : 0.6)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	8	8	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	S		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		N	5	Bevel projects from fill 300mm on East side.-27-May-2009
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		6	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1830, Rise (mm): 1120, Type: FP)				
Barrel Last Accessible Date	10-Jan-2013			New CSP sections installed at both ends. Roof appears stable-viewed from ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	3	12m from U/S.
Measured Rise (mm)	805			150mm bulge in floor
Measured At Ring No.				
Sag (mm)	165			
Percent Sag	15			
Sidewall		N	5	Measured 12m from U/S.
Measured Span (mm)	1925			
Measured At Ring No.				
Deflection (mm)	95			
Percent Deflection	5			
Floor		N	3	Bulge along 1/2 of total length.
Bulge (mm)	150			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	25			
Longitudinal Seams		N	N	Riveted seams.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		N	4	Pitting on 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): 1830, Rise (mm): 1120, Type: FP)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	D/S end above streambed.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	
Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		N	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	450			
Scour Protection		N	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		6	5	
Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		N	N	Perforations in floor. Large perforation covered by water.-27-May-2009 Snow/ice covered.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	now covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	GR carried fwd.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 760, Type: MP)				
Barrel Last Accessible Date	15-Aug-2007			Not visible due to snow.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Crown dented 100mm @ D/S end.-May,2009 Infiltration at seam 2m from D/S end. Evident from end of pipe.-27-May-2009
Measured Rise (mm)	695			
Measured At Ring No.				
Sag (mm)	65			
Percent Sag	9			
Sidewall		N	N	U/S 750, D/S 750.-May,2009 Infiltration @ circumferential seam 2m from D/S end. Evident from end of pipe.-27-May-2009
Measured Span (mm)	750			
Measured At Ring No.				
Deflection (mm)	10			
Percent Deflection	1			
Floor		N	N	
Bulge (mm)	100			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	Soil infiltration, damaged seam near D/S end. Evident from end of pipe - photo.-27-May-2009
Separation (mm)	150			
Longitudinal Seams		N	N	Riveted seams.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		N	N	(Pitting on floor. 15/Aug/2007)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 760, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	N	
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	N	Burried with snow.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	G.R. carried forward.

Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		N	N	Torn & damaged NW & NE side.-27-May-2009
Heaving (mm)	100			Covered with snow.
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	150			
Scour Protection		N	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried fwd.

Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		8	8	
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		5	5	

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	Repair dent D/S bevel end, pipe 2, if not done.					
OTHER ACTION	2013	Remove D/S section of pipe #2 and reinstall with new coupler, if not done.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	31.3/34.2	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor rise, no action pipe #1. Evaluate need for pipe #2 and consider abandoning in place. Assessment completed by MPA 2001 with recommendation to abandon pipe #2(grout).		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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	10-Oct-2014		Previous Inspection Date	26-Jan-2011			
Inspection Cycle (Default) (months)	21						
Comment							