

Bridge Culvert Inspection			
Bridge File Number	13085 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	4
Bridge or Town Name	MILLARVILLE	Inspector Name	Calvin Roberts
Located Over	TRIBUTARY TO THREEPOINT CREEK, 2.13.27.2.9.3, WATERCRS-ST	Inspector Class	BR CLS B
Located On	549:04 C1 4.022	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Feb-2013
Legal Land Location	NW SEC 8 TWP 21 RGE 2 W5M	Data Entry By	Lauren Korte
Longitude, Latitude	-114:14:42, 50:46:32	Data Entry Date	09-Mar-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA27	Review Date	16-Feb-2013
Clear Roadway/Skew	9.7 / 28 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	1,200 / 2011 (A)	Dept. Review Date	13-Mar-2013
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	6		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	51.1	68X13	2.8	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South ditch.	Gas	100m to East.
Power	50m to West-crosses Hwy 1 wire.	Municipal	
Others	North R/W power-1 wire.	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	5	5	Reduced speed corner (75kph) in curve T intersection just east of pipe.
Vertical Alignment	7	7	
Roadway Width (m)	9.700		
Embankment	8	8	
Sideslope ( __:1)	2.5		
(Height of Cover(m) : 2)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>5</b>	<b>5</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	N		North.
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
Bevel End		5	N	Damage at upper East corner- construction. Snow and ice covered.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Snow covered.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>350</b> )				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)				
Barrel Last Accessible Date	07-Nov-2009			Ice to within 0.3m of roof at both entrances, could not enter.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		4	N	Estimate Roof. P.R 4.
Measured Rise (mm)	1476			
Measured At Ring No.	2			
Sag (mm)	124			
Percent Sag	7			
Sidewall		4	N	P.R 4.
Measured Span (mm)	1724			
Measured At Ring No.	2			
Deflection (mm)	124			
Percent Deflection	7			
Floor		N	N	(Avg 400mm deep water with 200mm deep silt).
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		5	N	
Separation (mm)	70			
Longitudinal Seams		X	N	(Installation damage @ 2nd seam & 10m from d/s end).
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)					
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type : )					
Waterway Adequacy		5	5	(Pipe is submerged in spring) 19-Sep-2006 Ice to within 0.3m of roof.	
Icing (Y/N)	Yes				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	G.R carried forward.	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		S		South.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		7	N	(Bevel end barrel drilled and bolted to coupler). Snow covered.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	200				
Scour Protection		7	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 350)					
Scour/Erosion		7	N		
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>7</b>	<b>N</b>	P.R 7.	
Structure Usage					
		Last	Now	Explanation of Condition	
<b>Channel (U/S and D/S)</b>					
Alignment		7	7		
Bank Stability		7	7		
HWM (m below Top of Culvert)	0.3			No HWM visible. Ice to within 0.3m of roof.	
Drift (Y/N)	No				
Channel Bottom Degrading/Aggrading	AGGRADING				
Beavers (Y/N)	No				
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
<b>Channel General Rating</b>		<b>7</b>	<b>7</b>		

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>52.4/50.4</b>	Est. Repl. Yr	2018	Maint. Req. (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	Jason Rusu		Previous Assistant's Name				
Next Inspection Date	09-May-2016		Previous Inspection Date	07-Nov-2009			
Inspection Cycle (Default) (months)	39						
Comment							