

Bridge Culvert Inspection			
Bridge File Number	70357 -1 Bridge Culvert	Form Type	CUL1
Year Built	1972	Lot No.	1
Bridge or Town Name	BIG STONE	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO ALKALI CREEK, 3.6.3, WATERCRS-ST	Inspector Class	BR CLS A
Located On	570:06 C1 11.558	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	27-Nov-2010
Legal Land Location	SW SEC 14 TWP 26 RGE 8 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:01:32, 51:12:45	Data Entry Date	07-Jan-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA22	Review Date	11-Dec-2010
Clear Roadway/Skew	10 / 21 deg. (RHF)	Dept. Reviewer Name	Chris Black
AADT/Year	320 / 2009 (A)	Dept. Review Date	12-Jan-2011
Road Classification	RCU-210-110	Follow-Up By	
Detour Length (km)	20		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	53.4	125X26	3.5	ROUND
Special Features								
Special Features Comment	Original MP extended both ends with CSP. Steel Struts.							

**Utilities (Located at)**

Utility Attachments			
Telephone	S. ditch	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	8	7	Sag curve limited sight distance to the East.
Vertical Alignment	6	6	
Roadway Width (m)	10.000		
Embankment	7	7	
Sideslope ( __:1)	3.5		
(Height of Cover(m) : 5.4)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	N		
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		7	7	
Heaving (mm)	75			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		6	N	Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	N	Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>6</b>	Based on scour from 30Jan2009.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Barrel Last Accessible Date	27-Nov-2010			
<b>Special Features</b>				
Special Feature				Struts in CMP barrel section. Steel tube (3"x4") on 1.2m centres.
(Type : )				
Special Feature				
(Type : )				
Roof		4	3	Roof dented from installation. Main pipe: N end=1561, Midpt.=1639, S end=1601; N. Ext: N end=1713, Midpt.=1602, S end=1597; S. Ext: Not taken due to ice & debris. Rating reag on main pipe 1561 = 239mm = 13.2%.
Measured Rise (mm)	1662			
Measured At Ring No.	4			
Sag (mm)	138			
Percent Sag	13			
Sidewall		3	3	Main pipe: N end=2019, Midpt.=1967, S end=2027; N. Ext: N end=1900, Midpt.=1979, S end=2008; S. Ext: N end=1991, Midpt.=1900, S end=1897. Rating base on main pipe 2027=227=12.6%.
Measured Span (mm)	2027			
Measured At Ring No.	4			
Deflection (mm)	227			
Percent Deflection	12			
Floor		5	5	Rusting on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	Seams are tarred.
Separation (mm)	60			
Longitudinal Seams		6	6	Rated in MP Barrell
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		5	5	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 1800, Type: MP)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>4</b>	GR increased by 1 point due to struts.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		6	N	Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	N	Snow covered.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
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)				
<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>33.3/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>49.2/53.3</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Culverts strutted, no further action for roof & sidewalls with r=3.		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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	27-Feb-2014		Previous Inspection Date	30-Jan-2009			
Inspection Cycle (Default) (months)	39						
Comment							