

Bridge Culvert Inspection			
Bridge File Number	02163 -1 Bridge Culvert	Form Type	CUL1
Year Built	1978	Lot No.	1
Bridge or Town Name	STRATHMORE	Inspector Name	Jon Davies
Located Over	CROWFOOT CREEK, 2.13.14, WATERCRS-ST	Inspector Class	BR CLS B
Located On	1:14 L1 11.740;1:14 R1 11.740	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Feb-2012
Legal Land Location	NW SEC 12 TWP 24 RGE 23 W4M	Data Entry By	Erin Roberts
Longitude, Latitude	-113:05:37, 51:02:16	Data Entry Date	18-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA30	Review Date	27-Feb-2012
Clear Roadway/Skew	25 /	Dept. Reviewer Name	Tim Davies
AADT/Year	7,520 / 2010 (A)	Dept. Review Date	22-Mar-2012
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	1		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5374	2908	RPE	64.6	152X51	4.0	ELLIPSE
Special Features	VERT TIMBER STRUTS, EARS							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	@ South R/W	Gas	
Power	30.0 m North of c.l. - 3 wire	Municipal	
Others	Fibre optics North RW	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	AT END OF CURVE.
Vertical Alignment		6	6	Hill to West.
Roadway Width (m)	26.000			
Embankment		6	6	
Sideslope ( __:1)	5.0			
(Height of Cover(m) : 3)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		NORTH END
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Narrow cracks
Collar		5	5	CONCRETE STARTING TO BREAK AT BEVEL ENDS. COLLAR OVERGROWN AND MOSTLY SUBMERGED
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		6	6	INGROWN
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 5374, Rise (mm): 2908, Type: RPE)				
Barrel Last Accessible Date	16-Feb-2012			
<b>Special Features</b>				
Special Feature		N	N	2 ROWS STRUTS. Struts stable. @ least 400mm of sag @ South 1/2 @ struts-not able to see enough to properly rate.
(Type : <b>VERT TIMBER STRUTS</b> )				
Special Feature				
(Type : )				
Roof		N	N	No rise or span possible. Ice level within 700mm of roof at worst sag.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	400			
Percent Sag	14			
Sidewall		N	N	(2.8% SIDEWALL, 13.8% ROOF). 11-Feb-2003
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	150			
Percent Deflection	3			
Floor		N	N	Ice throughout.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	Numerous cracks at upper sidewall seams. Estimate less than 100mm remaining steel at South West seam location.
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	(Surface corrosion throughout pipe along sides and roof) 11- Feb-2003
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 5374, Rise (mm): 2908, Type: RPE)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	4	Grass at top of struts possibly indicating inadequate hydraulic capacity due to silt and struts.
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	G.R. CARRIED FORWARD
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		SOUTH END
End Treatment (Concrete, Steel, Others, None)		CONCRETE		
Headwall		7	7	
Collar		6	6	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	buried
Bevel End		6	6	
Heaving (mm)				
Invert Above/Below Stream Bed		BELOW		
Above/Below (mm)	1500			
Scour Protection		6	6	
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
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		5	5	45 DEG. BENDS @ BOTH ENDS.
Bank Stability		7	7	
HWM (m below Top of Culvert)		0.0		Runs full. Grass at top of struts.
Drift (Y/N)		No		
Channel Bottom Degrading/Aggrading		AGGRADING		
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</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	2012	Dewater and level 2.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>49.4/42.1</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	16-Nov-2013		Previous Inspection Date	16-Jul-2010			
Inspection Cycle (Default) (months)	21						
Comment							