

Bridge Culvert Inspection			
Bridge File Number	13019 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	3
Bridge or Town Name	CARBON	Inspector Name	Owen Salava
Located Over	2ND ORDER TRIBUTARY TO KNEEHILLS CREEK, 3.46.3.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	575:04 C1 16.020	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	26-Jan-2011
Legal Land Location	SE SEC 27 TWP 29 RGE 22 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-113:00:44, 51:30:12	Data Entry Date	03-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	03-Feb-2011
Clear Roadway/Skew	8 / -10 deg. (LHF)	Dept. Reviewer Name	Chris Black
AADT/Year	1,020 / 2009 (A)	Dept. Review Date	04-Mar-2011
Road Classification	RCU-208-110	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	1407	1621	SPE	51.2	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South.	Gas	
Power	3 wire O/H 30m N	Municipal	
Others		Problem (Y/N)	No
Remarks	Power - 2 wires x 300m E		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Oil lease roads 40m W to the S & N. Sag curve.
Vertical Alignment		6	6	
Roadway Width (m)	8.000			
Embankment		7	7	
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 6.5)				
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		
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		6	6	
Heaving (mm)	300			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	N	Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1407, Rise (mm): 1621, Type: SPE)				
Barrel Last Accessible Date	26-Jan-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		3	3	(Min rise 1440mm-11.1% sag. 05Oct2004). Was not able to measure rise due to ice.
Measured Rise (mm)	1440			
Measured At Ring No.				(05Oct2004).
Sag (mm)	181			
Percent Sag	11			
Sidewall		3	3	Shape is stil adequate. No deflection change since last inspection.
Measured Span (mm)	1560			
Measured At Ring No.	8			
Deflection (mm)	153			10.9%
Percent Deflection	10			
Floor		4	4	Rust with pitting. Near D/S barrel. Scaling near inlet.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
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): 1407, Rise (mm): 1621, Type: SPE)				
Fish Passage Adequacy		4	4	(D/S invert above S/B. 22Feb2008). Rating carried forward.
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	
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	N	(Some damage on ends - minor. 22Feb2008). Snow covered.
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	250			
Scour Protection		6	N	(Rock has been placed. 22Feb2008). Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>6</b>	GR carried forward from 22Feb2008.
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	Freshly graded through D/S channel for pipeline construction. Filter fabric not trenched in.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible. (Some rock in barrel. 05-Oct-2004).
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
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	2011	Remove soil from D/S channel, seed disturbed area, if not yet done.					
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>44.6/44.5</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	No action concerning deflected shape, arching is adequate.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2003.08.18 Replace culvert in 2020.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Bryan Wai		Previous Assistant's Name				
Next Inspection Date	26-Apr-2014		Previous Inspection Date	22-Feb-2008			
Inspection Cycle (Default) (months)	39						
Comment							