

Bridge Culvert Inspection				
Bridge File Number	00967 -1 Bridge Culvert		Form Type	CUL1
Year Built	1965		Lot No.	1
Bridge or Town Name	ALIX		Inspector Name	Owen Salava
Located Over	PARLBY CREEK, 3.65.2.1.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	12:12 C1 11.167		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	30-Aug-2012
Legal Land Location	NW SEC 36 TWP 39 RGE 23 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:11:33, 52:24:08		Data Entry Date	17-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA20		Review Date	06-Sep-2012
Clear Roadway/Skew	13.4 / 0 deg.		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,750 / 2011 (A)		Dept. Review Date	18-Oct-2012
Road Classification	RAU-213.4-110		Follow-Up By	
Detour Length (km)	8			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1800	SP	55.5	152X51		ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection with road 50 m West of pipe. No passing EB.
Vertical Alignment		8	8	
Roadway Width (m)	13.400			
Embankment		7	7	Berm at bottom of S toe.
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 5.5)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		N	4	Perforations in floor - photo. Floor algae-covered.
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			Some rock. Scour alongside SW corner.
Scour Protection (Type : <b>RIP RAP</b> )		5	4	
(Avg. Rock Size(mm) : <b>200</b> )				
Scour/Erosion		5	4	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: SP)				
Barrel Last Accessible Date	19-Apr-1991			Not accessible due to severe sag & water level rising rapidly to near roof; viewed from ends, shape OK.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	500mm clear roof to water. (Est.)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	1000			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	(50 mm bending at some seams. 91/04/19).
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	Staining through seams, perforations in bevel floor.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	NEG			Est. 1000mm neg camber.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: SP)				
Ponding (Y/N)	Yes			Severe neg camber (900mm). Creates ponding in center, D/S end above streambed.
Fish Passage Adequacy		4	4	Outlet perched 0.5m.
Baffle (Type : )		N	N	
Waterway Adequacy		4	4	(Silted 800 mm in center and none at ends. 95/05/10).
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward since 19Apr1991.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		5	5	Bevel projects 250 mm from fill.
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	600			
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>350</b> )		4	4	Minor scour beneath and along barrel.
Scour/Erosion		4	4	Minor scour - channel has rock / concrete pieces.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
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)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			(91/04/19) Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<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	2012	Dewater & level II barrel inspection.		2018						
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>37.7/37.7</b>	<b>Est. Repl. Yr</b>	<b>2018</b>	<b>Maint. Req. (Y/N)</b>	<b>Yes</b>			
Special Comments for Next Inspection	Inspect at low water level; consider concrete floor or invert armour plates if corrosion gets any worse.		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	Owen Salava	Previous Assistant's Name								
Next Inspection Date	30-May-2014	Previous Inspection Date	26-Aug-2010							
Inspection Cycle (Default) (months)	21									
Comment										

**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 & level II barrel inspection.	Chris Black viewed site on 8-Jan-2010 and determined no action required.			
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>37.7/37.7</b>	Est. Repl. Yr	2018	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Inspect at low water level; consider concrete floor or invert armour plates if corrosion gets any worse.		Department Comments	Currently programmed to be replaced in 2018.		
Maintenance Reviewed By	Andrew Smikles		Date	19-Nov-2012	Estimated Total	0
Proposed Long-Term Strategy						
On 3-Year Program (Y/N)						
Proposed Action						
Previous Inspector's Name	Owen Salava		Previous Assistant's Name			
Next Inspection Date	30-May-2014		Previous Inspection Date	26-Aug-2010		
Inspection Cycle (Default) (months)	21					
Comment						