

Bridge Culvert Inspection			
Bridge File Number	74000 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	1
Bridge or Town Name	DELIA	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO FARRELL LAKE, 21.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	851:06 C1 24.506	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Jan-2011
Legal Land Location	SW SEC 30 TWP 33 RGE 17 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:24:53, 51:51:31	Data Entry Date	04-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA21	Review Date	03-Feb-2011
Clear Roadway/Skew	8.8 /	Dept. Reviewer Name	Chris Black
AADT/Year	210 / 2009 (A)	Dept. Review Date	07-Mar-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	30		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2200	MP	28	125X26	2.8	ROUND
Special Features	VERT STEEL STRUTS							
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	9	9	Hill to N. Approach to S 100m.
Vertical Alignment	6	6	
Roadway Width (m)	8.800		
Embankment	7	7	
Sideslope ( __:1)	3.0		
(Height of Cover(m) : 3.3)			
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	E		
End Treatment (Concrete, Steel, Others, None)	NONE		
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		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
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>6</b>	<b>6</b>	GR carried forward from 17Feb2009.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2200, Type: MP)				
Barrel Last Accessible Date	28-Jan-2011			(Measured 2512 x 1850. 17Feb2009).
<b>Special Features</b>				
Special Feature		7	7	
(Type : <b>VERT STEEL STRUTS</b> )				
Special Feature				
(Type : )				
Roof		2	2	Not measured due to ice.
Measured Rise (mm)	1850			
Measured At Ring No.				
Sag (mm)	350			(15.9%. 17Feb2009).
Percent Sag	16			
Sidewall		3	3	
Measured Span (mm)	2510			
Measured At Ring No.	3			
Deflection (mm)	310			
Percent Deflection	14			
Floor		N	N	Ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	40			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		4	4	Some pitting lower half. Heavy corrosion with light pitting lower sidewalls
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			Holds 1000 mm of water.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2200, Type: MP)				
Fish Passage Adequacy		5	5	
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>4</b>	<b>4</b>	Raised 2 points due to struts.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		7	N	Snow covered.
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	GR carried forward from 17Feb2009.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Rock at ends maintains streambed at original elevation.
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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>57.3/57.6</b>	Est. Repl. Yr	2020	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	Barrel has not gotten worse since 1992 & is now strutted with steel struts. No action required at this time. LRA sent to AT 31Jan2011 by email.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2003.08.19 Observe culvert on normal BIM. Replace culvert in 2015.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	28-Apr-2014		Previous Inspection Date	17-Feb-2009			
Inspection Cycle (Default) (months)	39						
Comment							