

Bridge Culvert Inspection				
Bridge File Number	70454 -1 Bridge Culvert		Form Type	CUL1
Year Built	1962		Lot No.	4
Bridge or Town Name	GLENDON		Inspector Name	Wade Nanninga
Located Over	YELLING CREEK, 7.12.4.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	28:15 C1 25.066		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Apr-2012
Legal Land Location	SW SEC 13 TWP 60 RGE 9 W4M		Data Entry By	Lisa Fairhurst
Longitude, Latitude	-111:13:38, 54:10:50		Data Entry Date	25-Apr-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08		Review Date	25-Apr-2012
Clear Roadway/Skew	11 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,530 / 2011 (A)		Dept. Review Date	04-May-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	3			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3480	2210	RPP	31.7	152X51	4.2	PIPE ARCH
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	South r/w.	Gas	
Power		Municipal	
Others	Cable South r/w.	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Local road approaches 50 m West.  Transverse crack in roadway over pipe, previously sealed.
Vertical Alignment		9	9	
Roadway Width (m)	11.000			
Embankment		6	6	
Sideslope ( :1)	4.0			
(Height of Cover(m) : 2.5)				
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		N		Water to crown 0.8m.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		N	N	No evident problems. Under water.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			(09/July/2003)
Above/Below (mm)	100			
Scour Protection		N	N	Grassed over.-09-Aug-2008 (Settlement upto 300, 1m along sides of bevel. 09/July/2003)
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>250</b> )				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	G.R. carried forward from 12/Nov/2006.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3480, Rise (mm): 2210, Type: RPP)</b>				
Barrel Last Accessible Date	09-Jul-2003			0.8m crown to water, viewed from ends. No issues apparent.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		7	N	(At c/l, rise 2160 (2%). 2003/07/09)
Measured Rise (mm)	2160			
Measured At Ring No.				
Sag (mm)	50			
Percent Sag	2			
Sidewall		N	N	(At c/l, span 3480 (0%). 2003/07/09)
Measured Span (mm)	3480			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(R5, 6 & 7 have cracks @ 9l with 120mm between cracks. 2001/09/18) (Water level over seams, cannot view. 2003/07/09)
Total No. of Cracked Rings	3			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)	120			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	(Scaling, pitting rust on lower 1/2. 2003/07/09)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3480, Rise (mm): 2210, Type: RPP)				
Ponding (Y/N)	Yes			(Ponding 0.7m. 20/Apr/2005)
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		6	6	
Icing (Y/N)	No			(20/April/2005)
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	Carried forward since 09/July/2003 due to cracked seam.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		Water to crown 0.6m
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	N	No evident problems. Under water.
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			(09/July/2003)
Above/Below (mm)	100			
Scour Protection		N	N	Grassed over. -09-Aug-2008
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>5</b>	G.R. corrected and carried forward from 12/Nov/2006
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	Gentle curves to/from site in both directions.
Bank Stability		8	8	
HWM (m below Top of Culvert)				Drift on crown @ u/s end.
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>54.8/53.8</b>	Est. Repl. Yr	2028	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor cracks in R5,6 and 7 @ low wate rlevel - 09Jul03		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	10-Jan-2014		Previous Inspection Date	16-Jul-2010			
Inspection Cycle (Default) (months)	21						
Comment							