

Bridge Culvert Inspection				
Bridge File Number	02355 -1 Bridge Culvert		Form Type	CUL1
Year Built/Lined	1972/2002		Lot No.	4
Bridge or Town Name	KILLAM		Inspector Name	Owen Salava
Located Over	IRON CREEK, 5.16, WATERCRS-ST		Inspector Class	BR CLS A
Located On	26:12 C1 23.282		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	06-Nov-2012
Legal Land Location	SW SEC 6 TWP 47 RGE 13 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-111:54:10, 53:01:01		Data Entry Date	20-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA16		Review Date	14-Nov-2012
Clear Roadway/Skew	9.6 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,270 / 2011 (A)		Dept. Review Date	26-Nov-2012
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
2	MAIN FULL LINER	2314	2552	MPE	42.1	125X26	2.8	ELLIPSE
Special Features								
Special Features Comment		Bevel ends from 2610mm SPCSP remain.						

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	Correction line "T" intersection. Grade increase to East, limited sight distance.
Vertical Alignment		7	7	
Roadway Width (m)	9.600			
Embankment		5	5	Small erosion gully in N embankment over pipe.
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 2.6)				
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		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		7	7	Top 1/3 visible.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	Bevel projects from fill 400mm. Potential for piping over time if riprap is insufficient (photo).
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		8	7	Geotextile fabric not keyed in ground.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		8	7	
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
<b>(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: MPE)</b>				
Barrel Last Accessible Date	06-Nov-2012			MP liner.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		6	6	Egg shape with a crease along roof from over pressure from grouting. Roof distortion @ 12:00 leaving on upward crease. Unable to measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	6	Span U/S 2292, D/S 2275.  @ mid span close to 2nd ring.  2.9% inwards.
Measured Span (mm)	2247			
Measured At Ring No.	2			
Deflection (mm)	67			
Percent Deflection	3			
Floor		7	N	Left over concrete placed on floor at both ends.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	20			
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		8	8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: MPE)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>6</b>	<b>6</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		7	7	Bevel projects from fill 300mm. Potential for piping over time if insufficient riprap; similar to N end.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		8	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		8	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		6	6	Channel to D/S has scoured but edges have become well vegetated. Earth borrow dugout connected to channel to NE serves to pond water. Est area to be 750 sq/m. Also small borrow dugout to SW.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
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>66.7/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>69.4/69.4</b>	Est. Repl. Yr	2044	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor riprap protection beside barrel at both ends, add/repair as necessary.		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	Dave Lam		Previous Assistant's Name				
Next Inspection Date	06-Aug-2014		Previous Inspection Date	09-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							