

Bridge Culvert Inspection			
Bridge File Number	77040 -1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	2
Bridge or Town Name	LEDUC	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO BLACKMUD CREEK, 6.95.2.6, WATERCRS-ST	Inspector Class	BR CLS B
Located On	814:02 C1 12.637	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	15-Mar-2012
Legal Land Location	NW SEC 23 TWP 49 RGE 24 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:24:55, 53:14:53	Data Entry Date	10-Apr-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11	Review Date	09-Apr-2012
Clear Roadway/Skew	10 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,670 / 2011 (A)	Dept. Review Date	11-Apr-2012
Road Classification	RCU-210-110	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2120	SP	51.2	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	West ditch.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	Tag @ West end of pipe.		

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Pipe located in a valley @ base of South hill.
Vertical Alignment		6	6	
Roadway Width (m)	9.400			
Embankment		5	5	Not much vegetation on sideslopes, small erosion gullies up to 300mm deep. -Dec, 2008
Sideslope (__:1)	3.0			
(Height of Cover(m) : 6)				
Guardrail (Y/N)	Yes			Several broken/damaged posts, 1 loose splice bolt on East rail.
Approach Road / Embankment General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
Upstream End General Rating		7	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP)				
Barrel Last Accessible Date	09-Feb-1988			Ice/silt is up to 1.2m deep @ centre.-Feb,2008 Viewed from ends, shape & condition appears ok. Pipe accessible 5 rings from West, 2 rings from East.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Estimate.
Percent Sag	5			
Sidewall		N	N	
Measured Span (mm)	2060			
Measured At Ring No.	2			
Deflection (mm)	60			
Percent Deflection	3			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Corrosion deposits on roof bolts.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			2 1/2 - 3 ft negative camber in middle.-Dec,2008

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Restricted flow in culvert, higher flow speeds.-Dec, 2008
Baffle		N	N	
(Type :)				
Waterway Adequacy		4	4	Silting up to 1/2 of culvert diameter.-dEC,2008
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		N	N	Previous G.R. was "5" from 05/Oct/2005.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	(And concrete blocks. 05/Oct/2005) SNOW COVERED
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	Sharp bend on U/S end.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

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	Replace damaged posts and 1 splice bolt on guardrail.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	48.8/47.8	Est. Repl. Yr	2030	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Barrel has not been accessible since 1988, consider dewatering for inspection.		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	Jason Saly		Previous Assistant's Name	Bryce Clayton			
Next Inspection Date	15-Jun-2015		Previous Inspection Date	12-Dec-2008			
Inspection Cycle (Default) (months)	39						
Comment							