

Bridge Culvert Inspection			
Bridge File Number	77967 -1 Bridge Culvert	Form Type	CULE
Year Built	1974	Lot No.	1
Bridge or Town Name	SLAVE LAKE	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO LESSER SLAVE RIVER, 8.11.80.35, WATERCRS-ST	Inspector Class	BR CLS A
Located On	88:04 C1 2.281	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	27-Mar-2013
Legal Land Location	NW SEC 5 TWP 76 RGE 6 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:54:22, 55:33:33	Data Entry Date	16-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA06	Review Date	11-Apr-2013
Clear Roadway/Skew	9.6 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	940 / 2012 (A)	Dept. Review Date	23-Apr-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	15		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	3050	SP	24.4	152X51	3.5	ROUND
1	MAIN	-	2740	SP	29.3	152X51	3.0	ROUND
Special Features	BARREL ELBOW, SHOTCRETE BEAM							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	5 lines West r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	9.600			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 6)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		8	8	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	N	Snow covered
Collar		4	N	Extra concrete beside collar broken. Large cracks & heaving away from collar. Concrete extends into bevel causing fast water that deflects off elbow. -09-Jun-2011
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		6	N	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		5	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	
Beavers (Y/N)	Yes			Beaver dam 10m upstream
Upstream End General Rating		4	4	GR carried fwd.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 3050, Type: SP)				
Barrel Last Accessible Date	27-Mar-2013			0.6m ice in barrel
Special Features				
Special Feature		7	7	
(Type : BARREL ELBOW)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)				
Measured At Ring No.				est
Sag (mm)				
Percent Sag	1			
Sidewall		4	4	Cracking at 9:00 ring 6.
Measured Span (mm)	3055			
Measured At Ring No.	6			
Deflection (mm)	5			
Percent Deflection	0			
Floor		5	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	1 bolt missing @ ring 2
Separation (mm)	0			
Longitudinal Seams		4	4	Ring 6 @ 9:00.
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	125			1N
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	3 perforations @ 7:00 in ring 6 (photo)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 3050, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Hanging outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		4	4	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP)				
Barrel Last Accessible Date	27-Mar-2014			
Special Features				
Special Feature		5	5	
(Type : SHOTCRETE BEAM)				
Special Feature				
(Type :)				
Roof		5	2	
Measured Rise (mm)				
Measured At Ring No.	7			
Sag (mm)				est
Percent Sag	6			
Sidewall		5	5	Shotcrete beam entire length of 2740. Can't measure
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection	5			
Floor		6	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		6	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			1N
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Hanging outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	5	
Downstream 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	
Bevel End		4	4	Bevel projects from fill 2.0 m.
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	700			
Scour Protection		5	4	Large rock placed in outfall area is controlling streambed scour. Haunch area and shallow banks have widened. Eroding bank at SW is stable.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		4	4	Scour hole at down stream end widens channel by 4m
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			Upstream
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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	2018	Replace.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	40.8/40.1	Est. Repl. Yr	2018	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	Assessment completed March 2001 by MPA. Replacement recommended.17-Mar-2006 Current inspection cycle adequate until replacement in 2018. Monitor perforations, cracking plates and sownstream bevel.		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	27-Dec-2014		Previous Inspection Date	09-Jun-2011			
Inspection Cycle (Default) (months)	21						
Comment							