Bridge Culvert Inspection

Bridge File Number	09586 -1 Bridge Culvert	Form Type	CUL1
Year Built	1966	Lot No.	2
Bridge or Town Name	FROG LAKE	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO FROG CK, 6.7.5, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	897:10 C1 4.538	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Dec-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 17 TWP 58 RGE 3 W4M	Data Entry Date	14-Jan-2012
Longitude, Latitude	-110:24:43, 54:00:47	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	04-Jan-2012
Contract Main. Area	CMA08	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	9.4 / 15 deg. (RHF)	Dept. Review Date	18-Jan-2012
AADT/Year	860 / 2010 (A)	Follow-Up By	
Road Classification	RCU-210-110		
Detour Length (km)	100		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2489	1753	RPP	30.5	152X51	3.0,3.0,2.8	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed @ East end, exterior of South bevel.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Entrances North & South.
Vertical Alignment		6	6	Grade to the South, limited sight distance. No passing to North & South E
Roadway Width (m)	9.400			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.7**)				
Guardrail (Y/N)	Yes			East side only. Minor strike damage to 8 sections, still functional.
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			Beaver dam just U/S.
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1753, Type: RPP**)				
Barrel Last Accessible Date	10-Aug-2008			Viewed from ends, shape and condition appear ok.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	N	Water/ice 1.1m
Measured Rise (mm)	1635			(20/Mar/2002) Not measured.
Measured At Ring No.				
Sag (mm)	118			
Percent Sag				
Sidewall		5	N	
Measured Span (mm)	2585			
Measured At Ring No.				
Deflection (mm)	96			
Percent Deflection	4			
Floor		N	N	Covered in water/ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1753, Type: RPP**)				
Coating		6	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			At U/S opening.
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		**5**	**5**	General rating carried fwd from AUg, 2008.

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		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	110			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage

		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	U/S is large slough.
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWm not visible (High water reaches crown or higher. 94/09/20)
Drift (Y/N)	Yes			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**8**	**8**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION	2012	Beaver dam/debris on East side.				
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**56.7/56.5**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

Special Comments for Next 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	Dave Lam	Previous Assistant's Name	
Next Inspection Date	14-Mar-2015	Previous Inspection Date	10-Aug-2008
Inspection Cycle (Default) (months)	39		
Comment			