Bridge Culvert Inspection

Bridge File Number	71386 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	2
Bridge or Town Name	EVANSBURG	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO LOBSTICK RIVER, 8.11.84.51.4, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	16A:08 C1 4.532	Assistant Class	
Water Body Cl./Year		Inspection Date	27-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 26 TWP 53 RGE 8 W5M	Data Entry Date	10-Sep-2012
Longitude, Latitude	-115:04:55, 53:35:60	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	30-Aug-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	7.4 / 45 deg. (RHF)	Dept. Review Date	18-Sep-2012
AADT/Year	1,050 / 2011 (A)	Follow-Up By	
Road Classification	RAU-208-110		
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	2027	2240	SPE	59.1	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 wires North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag U/S.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Entrances both directions. In sag curve with no passing. Road posted at 80km/hr.
Vertical Alignment		6	6	
Roadway Width (m)	7.400			
Embankment		5	6	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		4	4	Loss of fill along bevel.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	500mm erosion along East bevel.
Beavers (Y/N)	Yes			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE**)				
Barrel Last Accessible Date	27-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Water leakage through bolts.
Measured Rise (mm)	2210			
Measured At Ring No.	10			
Sag (mm)	30			
Percent Sag	1			
Sidewall		7	6	Small hole from construction ring 15, West. Small hole from construction R14, East.
Measured Span (mm)	2037			
Measured At Ring No.	10			
Deflection (mm)	10			
Percent Deflection	0			
Floor		5	5	Scaling on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	Plates at center of the pipe are nested poorly due to poor torquing of bolts.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N stagger.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Scaling rust on floor. Corrosion at upper seams/bolts.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE**)				
Fish Passage Adequacy		4	4	Invert above S/B.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			1.0m drop in S/B elevation 10m D/S.
Above/Below (mm)	1000			
Scour Protection		7	4	Riprap has been washed d/s.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		7	4	Scour at outlet and d/s.
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	5	Bends U/S and D/S.
Bank Stability		5	5	Vertical banks D/S, not caving.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**5**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS						
PLACE ADDITIONAL RIP RAP	2013	40m3 CL2 at bends.				
REMOVE DRIFT ACCUMULATION						
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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**60.6/58.1**	Est. Repl. Yr	2020	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	27-May-2014	Previous Inspection Date	05-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					