Bridge Culvert Inspection

Bridge File Number	76783 -1 Bridge Culvert	Form Type	CUL1
Year Built	1968	Lot No.	2
Bridge or Town Name	ENTRANCE	Inspector Name	Todd Warshawski
Located Over	PEPPERS CREEK, 8.11.118.3.4.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	40:30 C1 17.915	Assistant Class	
Water Body Cl./Year		Inspection Date	30-Oct-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 4 TWP 52 RGE 26 W5M	Data Entry Date	14-Nov-2012
Longitude, Latitude	-117:47:05, 53:27:31	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	13-Nov-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	8.5 /	Dept. Review Date	20-Nov-2012
AADT/Year	2,040 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	420		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2610	2877	SPE	75.6	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w	Gas	
Power	1 wire East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag in place.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Crest curve to the north.
Vertical Alignment		7	7	
Roadway Width (m)	8.500			
Embankment		N	N	Snow covered, NO PROBLEMS EVIDENT.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **11.2**)				
Guardrail (Y/N)	Yes			Strike damage, 5 sections and 45 degree bracket on West side.- photos
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	250			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		N	N	Snow covered, no problems evident.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		N	N	
Beavers (Y/N)	Yes			3m high beaverdam 20m u/s.-photo
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): 2610, Rise (mm): 2877, Type: SPE**)				
Barrel Last Accessible Date	30-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	2740			
Measured At Ring No.	11			
Sag (mm)	137			
Percent Sag	5			
Sidewall		6	6	
Measured Span (mm)	2746			
Measured At Ring No.	11			
Deflection (mm)	136			
Percent Deflection	5			
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Minor superficial rust along floor, 1.5m wide strip.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2877, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			Nov,2010
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

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		6	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			(20/Apr/2007)
Above/Below (mm)	100			
Scour Protection		N	N	Snow cover, no problems evident.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	135 degree bend into inlet.
Bank Stability		6	6	Snow covered, but appears stable/well vegetated.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Large beaverdam 20m u/s.
Beavers (Y/N)	Yes			
(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	Remove beaverdam from u/s channel.				
OTHER ACTION	2012	Repair guardrail 5 sections and 45 degree bracket.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**65.8/65.8**	Est. Repl. Yr	2030	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	Shane Hall	Previous Assistant's Name	
Next Inspection Date	30-Jul-2014	Previous Inspection Date	24-Nov-2010
Inspection Cycle (Default) (months)	21		
Comment			