

Bridge Culvert Inspection				
Bridge File Number	06787 -1 Bridge Culvert		Form Type	CUL1
Year Built	1964		Lot No.	2
Bridge or Town Name	BELLIS		Inspector Name	Kris Bosters
Located Over	REDCLAY CREEK, 6.42, WATERCRS-ST		Inspector Class	BR CLS A
Located On	857:06 C1 26.484		Assistant Name	Brian Cote
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	11-Dec-2012
Legal Land Location	NW SEC 35 TWP 58 RGE 15 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-112:08:00, 54:03:47		Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	UNDEFINED CMA		Review Date	19-Dec-2012
Clear Roadway/Skew	9 / 30 deg. (RHF)		Dept. Reviewer Name	Paul Catt
AADT/Year	600 / 2011 (A)		Dept. Review Date	18-Jan-2013
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	30			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	74.4	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	East ditch.		Gas
Power	Single wire 15m East of c/l.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Access road to SE. Crest curve to the North.
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope (_ :1)	2.5			
(Height of Cover(m) : 7.5)				
Guardrail (Y/N)	Yes			
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		4	4	First 2 rings & bevel candidate for uplift. Bevel projects from fill 2.0m.
Heaving (mm)	750			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		5	4	Bevel protrudes from fill 2m and water impound/flows at one side.
Scour/Erosion		5	4	
Beavers (Y/N)	Yes			1.2m beaver dam present on bevel. Another dam 20m East.
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): 2019, Rise (mm): 2226, Type: SPE)				
Barrel Last Accessible Date	02-Sep-2009			Not accessible, water flowing under ice.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		5	N	
Measured Rise (mm)	2075			
Measured At Ring No.	9			
Sag (mm)	151			
Percent Sag	7			
Sidewall		4	N	Water flowing in through lower sidewall in R3 at u/s end.-photo, not sure if caused by corrosion, covered by ice.
Measured Span (mm)	2165			
Measured At Ring No.	9			
Deflection (mm)	146			
Percent Deflection	7			
Floor		5	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	N	
Separation (mm)	0			
Longitudinal Seams		5	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			
Coating		5	N	Superficial rust lower sidewall & floor and at leakage.-02-Sep-2009
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			Ponding 500 mm near outlet.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Fish Passage Adequacy		4	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		4	4	GR carried fwd from 02-Sep-2009
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	N	Snow covered.
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		4	N	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	N	Scour hole @ outlet ~5m long x 3m wide x 0.5m deep.-02-Sep-2009
Beavers (Y/N)	Yes			
Downstream End General Rating		4	4	GR carried fwd from 02-Sep-2009.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
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	2013	Remove beaver dam @ inlet.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	47.4/52.8	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor perforations.		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	Melanie Johnson		Previous Assistant's Name				
Next Inspection Date	11-Mar-2016		Previous Inspection Date	02-Sep-2009			
Inspection Cycle (Default) (months)	39						
Comment							