Bridge Culvert Inspection

Bridge File Number	76041 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	KINUSO	Inspector Name	Russel Vanderschaaf
Located Over	CHALMERS CK, 8.11.80.39.15, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	33:14 C1 2.458	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Feb-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 11 TWP 69 RGE 9 W5M	Data Entry Date	13-Apr-2013
Longitude, Latitude	-115:15:58, 54:57:35	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	07-Apr-2013
Contract Main. Area	CMA06	Dept. Reviewer Name	
Clear Roadway/Skew	10.7 /	Dept. Review Date	
AADT/Year	770 / 2012 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	99		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5212	5760	SPE	49.5	152X51	4.0	ELLIPSE
Special Features		DROP STRUCTURE						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	East r/w 3 wire	Municipal	
Others		Problem (Y/N)	No
Remarks	"Chalmers Creek" sign		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Passing both directions.
Vertical Alignment		7	7	Incline to the south Intersection 300m N.
Roadway Width (m)	10.700			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.5**)				
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)	CONCRETE			
Headwall		4	4	Vert. cracking. Spall with rebar exposed on South corner.
Collar		5	5	Honeycombing on collar and slope prot.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	N	Damage to bevel near tip on floor.-24-Jul-2009
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Under ice
Above/Below (mm)	400			
Scour Protection		5	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		5	N	Snow covered
Beavers (Y/N)	No			
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): 5212, Rise (mm): 5760, Type: SPE**)				
Barrel Last Accessible Date	11-Feb-2013			
Special Features				
Special Feature		4	N	10m off d/s end - wood planks split s. side. Under ice/snow. Ice 43.m from crown
(Type : **DROP STRUCTURE**)				
Special Feature				
(Type :)				
Roof		7	7	Estimated due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		6	6	
Measured Span (mm)	5303			
Measured At Ring No.	5			
Deflection (mm)	91			
Percent Deflection	2			
Floor		N	N	Under ice
Bulge (mm)	0			
Measured At Ring No.	7			
Abrasion (Y/N)	Yes			
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	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Minor superficial rust 1m wide strip of floor.-24-Jul-2009 Under ice Alkaline deposits through 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): 5212, Rise (mm): 5760, Type: SPE**)				
Fish Passage Adequacy		3	3	Outlet above S.B.-06-Apr-2011 Under ice
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		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Minor spall on NW end and SW end. Vert cracking
Collar		5	5	Honeycombing at tip of bevel.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		5	5	Rate based on 60% visibility
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		N	N	Streambed rocks moved d/s.-24-Jul-2009 Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	GR carried fwd.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**54.3/54.2**	Est. Repl. Yr	2028	Maint. Reqd. (Y/N)	No

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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina
Next Inspection Date	11-Nov-2014	Previous Inspection Date	06-Apr-2011
Inspection Cycle (Default) (months)	21		
Comment			