

Bridge Culvert Inspection			
Bridge File Number	07127 -1 Bridge Culvert	Form Type	CULM
Year Built	1997	Lot No.	3
Bridge or Town Name	VIKING	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO BIRCH LAKE, 6.5.18.3.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	36:18 C1 18.531	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Jan-2013
Legal Land Location	NW SEC 25 TWP 49 RGE 13 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:47:04, 53:15:36	Data Entry Date	12-Feb-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	19-Jan-2013
Clear Roadway/Skew	11.8 /	Dept. Reviewer Name	Darron Ahlstedt
AADT/Year	1,150 / 2011 (A)	Dept. Review Date	13-Feb-2013
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3050	SP	65.2	152X51	3.0	ROUND
2	MAIN	-	3050	SP	65.2	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	2 wires, W fenceline.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	In sag curve, vertical crest at both ends. Limited sight distance, both directions. No passing both lanes.
Vertical Alignment		6	6	
Roadway Width (m)	11.800			
Embankment		8	N	(Well vegetated. 09Dec2010) - Snow covered but no signs of problem.
Sideslope (__:1)	4.0			
(Height of Cover(m) : 5.2)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		7	7	(Crack in collar between pipes. 09Dec2010).
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		N	N	Buried.
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Snow covered but no sign of problem.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			Minor drift btwn culverts.
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP)				
Barrel Last Accessible Date	09-Jan-2013			South pipe. Ice within 1.4m of roof.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Could not measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		8	8	Measured 3044 at R6; due to ice levels unsure of accuracy of measurement, previous measurement maintained.
Measured Span (mm)	3040			
Measured At Ring No.	6			(0.3%. 09Dec2010).
Deflection (mm)	10			
Percent Deflection	0			
Floor		N	N	Iced over.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			2N
Coating		7	7	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			(1.2m standing water by design. 09Dec2010).
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	(Any silt will easily flush in flood. 30/May/2006)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		8	8	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		E		South pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	N	(12 x 20 scour hole. Iced over. 09Dec2010).
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried forward from 09Dec2010 based on scour.
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		North Pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		7	N	(Crack in collar between pipes. 090Dec2010).
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			Minor drift btwn culverts.
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP)				
Barrel Last Accessible Date	09-Jan-2013			North pipe. Ice within 1.4m of roof.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Could not take measurements due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		8	8	Measured 3072 at R8; unsure of accuracy of measurement due to ice levels.
Measured Span (mm)	3080			
Measured At Ring No.	8			
Deflection (mm)	30			
Percent Deflection	1			
Floor		N	N	Iced over.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			2N
Coating		7	7	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP)				
Ponding (Y/N)	No			(1.2m standing water by design. 09Dec2010).
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	(Any silt will easily flush in flood. 30/May/2006).
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		8	8	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Buried.
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	N	(12 x 20 scour hole. Iced over. 09Dec2010).
Beavers (Y/N)	No			
Downstream End General Rating		4	4	GR carried forward from 09Dec2010 based on scour rating.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Meandering, both ends. Wide flood plain.
Bank Stability		7	7	(Rock riprap D/S channel bank approx 30m. 28Mar2008). Snow covered.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	Yes			(Beavers have water backed up 1.0m deep. 30/May/2006)
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION	2013	Remove drift.					
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) (%)	88.9/88.9	Sufficiency Rating (Last/Now) (%)	81.9/81.9	Est. Repl. Yr	2044	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor scour at d/s end; no further action at this time.		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	09-Oct-2014		Previous Inspection Date	09-Dec-2010			
Inspection Cycle (Default) (months)	21						
Comment							