

Bridge Culvert Inspection			
Bridge File Number	71118 -1 Bridge Culvert	Form Type	CULM
Year Built/Lined	1994/1994	Lot No.	4
Bridge or Town Name	DIXONVILLE	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO WHITEMUD RIVER, 8.10.48.4, WATERCRS-ST	Inspector Class	BR CLS B
Located On	35:04 C1 31.214	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Nov-2011
Legal Land Location	SW SEC 36 TWP 86 RGE 24 W5M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-117:39:46, 56:30:06	Data Entry Date	16-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA04	Review Date	12-Dec-2011
Clear Roadway/Skew	10.7 /	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,910 / 2010 (A)	Dept. Review Date	10-Jan-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	12		

**Bridge Culvert Information**

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
4	MAIN FULL LINER	-	1500	SSP	76.8		9.9	ROUND
5	MAIN FULL LINER	-	1500	SSP	76.8		9.9	ROUND
6	MAIN FULL LINER	-	1500	SSP	76.8		9.9	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	Buried 1m east	Gas	
Power	OH 15m east	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	6	Driveway south end. No passing south bound traffic, hill to the south curves east.
Vertical Alignment	6	6	
Roadway Width (m)	10.700		
Embankment	7	7	
Sideslope ( __:1)	3.0		
(Height of Cover(m) : 4)			
Guardrail (Y/N)	Yes		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 4, Span Type: Secondary Span)</b>				
Direction		W		South pipe
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		N	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>150</b> )		N	4	Minor erosion around u/s end
Scour/Erosion		N	4	Minor erosion around u/s end
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Barrel Last Accessible Date	10-Feb-2010			400mm from top of ice and crown at d/s end. Viewed from ends
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		6	N	(Rated based on 45 % visibility.10 Feb 2010)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		4	N	(Measured approx. 30m from u/s until accessible. Inward deflection. Pitting rust on walls above ice level. - 10 feb 2010)
Measured Span (mm)	1494			
Measured At Ring No.				
Deflection (mm)	6			
Percent Deflection				
Floor		N	N	Covered with ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		4	4	No coating on SSP. Pitting rust on sidewalls and roof.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	7	
Baffle		N	X	
(Type : )				
Waterway Adequacy		4	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward 10 Feb 2010
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 4, Span Type: Secondary Span)</b>				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	6	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>150</b> )				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 5, Span Type: Secondary Span)</b>				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		N	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>150</b> )		N	6	
Scour/Erosion		N	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>N</b>	<b>6</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 5, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Barrel Last Accessible Date	10-Feb-2010			400mm from ice level to crown at d/s. 700mm to crown at u/s
<b>Special Features</b>				
Special Feature (Type : )				Viewed from d/s end-shpae looks good.
Special Feature (Type : )				
Roof		5	N	Pitting rust-rated until 10m from u/s end.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm) Percent Sag				
Sidewall		4	N	Measured 10m from u/s end, until accessible. Pitting rust above ice level. (Deflection inward. - 10 Feb 2010)
Measured Span (mm)	1490			
Measured At Ring No.				
Deflection (mm) Percent Deflection	10			
Floor		N	N	Covered with ice.
Bulge (mm)				
Measured At Ring No. Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 5, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	SSP. No Coating.
Corrosion By Soil (Y/N)	No			Pitting rust above ice levels.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		N	X	
(Type : )				
Waterway Adequacy		5	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward 10 Feb 2010
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 5, Span Type: Secondary Span)</b>				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>N</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 6, Span Type: Secondary Span)</b>				
Direction		W		900mm of water in pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		4	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>150</b> )		4	4	
Scour/Erosion		4	4	Erosion 500mmx200mmx1500m along Southside of bevel end.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 6, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Barrel Last Accessible Date	10-Feb-2010			400mm from ice-crown at d/s + 700mm to crown at u/s - viewed from ends.
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		5	5	70% of culvert length covered with ice and silt. Superficial rust on roof. Est.
Measured Rise (mm)	1497			
Measured At Ring No.				
Sag (mm)	3			
Percent Sag	1			
Sidewall		4	5	Est. @ cl Pitting rust on walls.
Measured Span (mm)	1507			
Measured At Ring No.				
Deflection (mm)	7			
Percent Deflection	1			
Floor		5	5	Covered with ice-70% Rated based on the 30% visible length of culvert. Superficial rust on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 6, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: SSP)</b>				
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	SSP. No Coating. Pitting rust on sidewalls.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	6	
Baffle		X	X	
(Type : )				
Waterway Adequacy		4	6	Pipe nearly full, D/S water level 100mm from top of pipe.-May 15, 2008
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>5</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 6, Span Type: Secondary Span)</b>				
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		N	4	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>N</b>	<b>4</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		5	5	Water enters pipe at 60 degrees.
Bank Stability		7	7	
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 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	



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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>40.7/47.4</b>	Est. Repl. Yr	2031	Maint. Req. (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	16-Aug-2013		Previous Inspection Date	10-Feb-2010			
Inspection Cycle (Default) (months)	21						
Comment							