

Bridge Culvert Inspection			
Bridge File Number	76790 -2 Bridge Culvert	Form Type	CULM
Year Built	2004	Lot No.	4
Bridge or Town Name	GUY	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO LITTLE SMOKY RIVER, 8.10.58.7.7.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	49:10 C1 21.059	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	13-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 25 TWP 75 RGE 21 W5M	Data Entry Date	23-Jan-2013
Longitude, Latitude	-117:07:53, 55:32:03	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	09-Jan-2013
Contract Main. Area	CMA03	Dept. Reviewer Name	David Morrison
Clear Roadway/Skew	13 /	Dept. Review Date	21-Mar-2013
AADT/Year	1,680 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	3		

Bridge Culvert Information								
Number of Culverts		3						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1650	SSP	32.5		12.7	ROUND
2	MAIN	-	1650	SSP	32.5		12.7	ROUND
3	MAIN	-	1650	SSP	32.2		12.7	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone		Gas	
Power	7 wire OH/ East r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		9	9	
Roadway Width (m)	13.000			
Embankment		9	9	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 1)				
Guardrail (Y/N)	No			
<b>Approach Road / Embankment General Rating</b>		<b>9</b>	<b>9</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Direction		E		North - culv
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	N	Snow covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Insufficient protected @ sides of bevel.-30-Apr-2009
(Type : <b>RIP RAP</b> )				Snow covered.
(Avg. Rock Size(mm) : <b>450</b> )				
Scour/Erosion		N	N	Scour 2.4m(L) x 400mm (W) x 300mm (D) South side of bevel. Undermining 2.0m.-30-Apr-2009
				Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	GR carried over -30-Apr-2009
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)</b>				
Barrel Last Accessible Date	13-Dec-2012			1306mm ice to roof
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	est. At C/L
Measured Rise (mm)	1652			
Measured At Ring No.				
Sag (mm)	2			
Percent Sag				
Sidewall		N	7	At C/L
Measured Span (mm)	1670			
Measured At Ring No.				
Deflection (mm)	20			
Percent Deflection	1			
Floor		N	N	Ice covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	Welded seams
Separation (mm)	0			
Longitudinal Seams		X	X	
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)	No			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)					
Coating		X	X	Scaling rust @ water line 500mm above floor. Smooth wall pipe - no coating	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		N	7		
Baffle		X	X		
(Type : )					
Waterway Adequacy		N	8		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>N</b>	<b>7</b>		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		W		North- culv.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		N	N	Snow covered.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	600				
Scour Protection		N	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 450)					
Scour/Erosion		N	N	Snow covered	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	GR carried over - 30-Apr-2009	
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		E		-mid.- culv.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	7	Based on 40% visibility.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>450</b> )				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	GR carried over -30-Apr-2009

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)</b>				
Barrel Last Accessible Date	13-Dec-2012			(Mid culv.) - 1203mm ice to roof
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	est
Measured Rise (mm)	1640			At C/L
Measured At Ring No.				
Sag (mm)	10			
Percent Sag	1			
Sidewall		N	7	At C/L
Measured Span (mm)	1623			inward
Measured At Ring No.				
Deflection (mm)	27			
Percent Deflection	1			
Floor		N	N	Ice on floor @ c/l
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)	0			
Longitudinal Seams		X	X	
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)	No			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)					
Coating		X	X	Scaling rust @ water line 600mm above floor.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		N	7		
Baffle		X	X		
(Type : )					
Waterway Adequacy		N	7		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
<b>Barrel General Rating</b>		<b>N</b>	<b>7</b>		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		W		(West -mid.- culv.)	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape : )					
Cutoff Wall		X	X		
Bevel End		N	N	Snow covered.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	600				
Scour Protection		N	N	Snow covered.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 450)					
Scour/Erosion		N	N	Snow covered.	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	GR carried over-30-Apr-2009	
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 3, Span Type: Secondary Span)					
Direction		E		(South-Culv.)	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		8	7	Based on 40% visibility
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>450</b> )				
Scour/Erosion		N	N	Snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>7</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)</b>				
Barrel Last Accessible Date	13-Dec-2012			South 1253mm ice to roof
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	7	Estimated due to ice.
Measured Rise (mm)	1667			At C/L
Measured At Ring No.				
Sag (mm)	17			
Percent Sag	1			
Sidewall		8	7	At C/L
Measured Span (mm)	1663			
Measured At Ring No.				
Deflection (mm)	13			
Percent Deflection	1			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)	0			
Longitudinal Seams		X	X	
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)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1650, Type: SSP)				
Coating		X	X	
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	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>8</b>	<b>7</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Span Type: Secondary Span)				
Direction		W		(South-Culv.)
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		8	N	Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	GR carried fwd.

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		9	9	
Bank Stability		7	5	Scour u/s end North bank 7mx2m widex1.5m deep.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
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>7</b>	<b>9</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>88.9/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>79.3/75.1</b>	Est. Repl. Yr	2049	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor erosion around bevel.s-10-Feb-2011 Monitor scour u/s end on North bank.		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	Russel Vanderschaaf		Previous Assistant's Name				
Next Inspection Date	13-Sep-2014		Previous Inspection Date	10-Feb-2011			
Inspection Cycle (Default) (months)	21						
Comment							