

Bridge Culvert Inspection				
Bridge File Number	73879 E-2 Bridge Culvert		Form Type	CUL1
Year Built	1999		Lot No.	2
Bridge or Town Name	WHITECOURT		Inspector Name	Kris Bosters
Located Over	CHICKADEE CREEK, 8.11.110, WATERCRS-ST		Inspector Class	BR CLS A
Located On	43:14 R1 23.099		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	04-Oct-2011
Legal Land Location	NE SEC 24 TWP 60 RGE 14 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:57:47, 54:12:24		Data Entry Date	25-Oct-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12		Review Date	22-Oct-2011
Clear Roadway/Skew	12.4 / 0 deg.		Dept. Reviewer Name	Brent Herrick
AADT/Year	6,030 / 2010 (A)		Dept. Review Date	26-Oct-2011
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	6160	SP	111.546	152X51	7.0	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	BF tag installed on top of North end of pipe.	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Bottom of sag curve.
Vertical Alignment	7	7	
Roadway Width (m)	12.500		
Embankment	8	8	Benched South side (4:1 for 5m then 6:1), North end measured (4:1 then 3:1).
Sideslope ( __:1)	4.0		
(Height of Cover(m) : <b>10</b> )			
Guardrail (Y/N)	Yes		10 posts broken NW-photo
<b>Approach Road / Embankment General Rating</b>	<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	8	8	
Collar	7	7	Medium transverse cracks.
Wingwalls	X	X	
(Shape : )			
Cutoff Wall	N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	8	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>8</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>6160</b> , Type: <b>SP</b> )				
Barrel Last Accessible Date	04-Oct-2011			Could only access u/s 1/3 due to water depth. Rated visible sections.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		8	7	
Measured Rise (mm)	6001			
Measured At Ring No.	30			
Sag (mm)	159			
Percent Sag	3			
Sidewall		8	8	
Measured Span (mm)	6223			
Measured At Ring No.	30			
Deflection (mm)	63			(1.4%. 08/Apr/2008)
Percent Deflection	1			
Floor		N	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	8	
Separation (mm)	0			
Longitudinal Seams		N	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				2N stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	
Corrosion By Soil (Y/N)	No			
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): , Rise (mm): 6160, Type: SP)				
Fish Passage Adequacy		5	5	
Baffle		4	4	Steel baffles installed U/S, 1/2 of barrel only. Center 3-4 baffles appear to have come loose.
(Type : WEIR)				
Waterway Adequacy		8	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
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		7	7	Narrow cracks.
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	4	30mx30mx2m(lwd pool downstream banks adjacent to collar scoured vertical and 75% of apron has washed 40m d/s.-photo
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 350)				
Scour/Erosion		8	4	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		6	6	Meandering.
Bank Stability		7	4	Banks scoured vertical d/s
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>6</b>	<b>4</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	2011	Replace 10 broken guardrail posts & reset rail.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>67.3/74.9</b>	Est. Repl. Yr	2054	Maint. Req. (Y/N)	Yes
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	Wade Nanninga		Previous Assistant's Name				
Next Inspection Date	04-Jul-2013		Previous Inspection Date	30-Oct-2009			
Inspection Cycle (Default) (months)	21						
Comment							