Bridge Culvert Inspection

Bridge File Number	80794 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	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
		Assistant Name	Brian Cote
Located On	LOCAL ROAD	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	18-Apr-2013
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NE SEC 34 TWP 61 RGE 15 W5M	Data Entry Date	24-Apr-2013
Longitude, Latitude	-116:09:33, 54:19:22	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Apr-2013
Contract Main. Area	UNDEFINED CMA	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	8.6 / -15 deg. (LHF)	Dept. Review Date	01-May-2013
AADT/Year	40 / 2013 (E)	Follow-Up By	
Road Classification	RLU-208G-90		
Detour Length (km)	60		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3495	3854	SPE	37.2	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	3 lines East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	At bottom of long sag curve.
Vertical Alignment		7	7	
Roadway Width (m)	8.600			
Embankment		7	7	
Sideslope (__:1)	2.5			
(Height of Cover(m) : **1.9**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Minor cracking in headwall.
Collar		6	6	Honeycombing on collar end; horizontal crack in collar end.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		7	N	Snow and ice covered
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 3495, Rise (mm): 3854, Type: SPE**)				
Barrel Last Accessible Date	02-Oct-2007			Ice and running water, not accessible. Shape looks good from ends
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	
Measured Rise (mm)	3723			
Measured At Ring No.	6			
Sag (mm)	131			
Percent Sag	3			
Sidewall		7	N	
Measured Span (mm)	3635			
Measured At Ring No.	6			
Deflection (mm)	140			
Percent Deflection	4			
Floor		6	N	(Riprap deposited at D/S side of barrel (approx ring 6). - Oct 2/2007)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		8	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
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			
Coating		5	N	(Superficial corrosion on floor. - Oct 2/2007)
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): 3495, Rise (mm): 3854, Type: SPE**)				
Fish Passage Adequacy		7	7	
Baffle		7	7	
(Type : **WEIR**)				
Waterway Adequacy		7	7	Approx 0.3m ice forming in barrel
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	Last rated 7 on Oct 2/2007

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
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		6	6	Top of bevel is bending inwards 150mm on both sides, still functional.
Heaving (mm)	0			
Invert Above/Below Stream Bed				Banks have "belled out".
Above/Below (mm)	0			
Scour Protection		6	4	(Riprap has been washed D/S to form an island - photo. Scour hole 12m long x 8m wide. 0.7m deep at end of bevel. Rock in place. - Oct 2/2007) Banks too steep at NE side, rocks tumbling down to bottom of channel
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	N	(Scour under bevel. Protected with rock. - Oct 2/2007)
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	HWM not visible.
Bank Stability		7	7	
HWM (m below Top of Culvert)				
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			(Small dam on U/S channel.)
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**7**	**8**	

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	2013	Widen out d/s channel banks and replace riprap				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**76.2/75.0**	Est. Repl. Yr	2041	Maint. Reqd. (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	Melanie Johnson	Previous Assistant's Name	
Next Inspection Date	18-Jan-2018	Previous Inspection Date	02-Oct-2007
Inspection Cycle (Default) (months)	57		
Comment			