Bridge Culvert Inspection

Bridge File Number	79271 -1 Bridge Culvert	Form Type	CUL1
Year Built	1979	Lot No.	4
Bridge or Town Name	TANGENT	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO SMOKY RIVER, 8.10.58.5, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	740:02 C1 11.487	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Nov-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 3 TWP 79 RGE 24 W5M	Data Entry Date	14-Dec-2011
Longitude, Latitude	-117:40:52, 55:49:31	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	12-Dec-2011
Contract Main. Area	CMA03	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	7.8 /	Dept. Review Date	10-Jan-2012
AADT/Year	330 / 2010 (A)	Follow-Up By	
Road Classification	RCU-208-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2450	1750	RPP	21.9	152X51	3.0	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	13m WEST OF CENTRELINE - Buried.	Gas	
Power	14m EAST OF CENTRELINE: 2W OH	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	7	
Vertical Alignment		9	8	Approach 50m N & S Delineater post installed
Roadway Width (m)	7.800			
Embankment		N	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		N	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		N	4	Scour on south side and below pipe. ~100mm under pipe.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		N	4	Bevel unsupported for 1.3 m.
Beavers (Y/N)	No			
Upstream End General Rating		**3**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2450, Rise (mm): 1750, Type: RPP**)				
Barrel Last Accessible Date	08-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	
Measured Rise (mm)	1717			
Measured At Ring No.	4			
Sag (mm)	33			
Percent Sag	2			
Sidewall		7	6	
Measured Span (mm)	2456			
Measured At Ring No.	4			
Deflection (mm)	6			
Percent Deflection				
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	6	1 row of bolts straight down the center of top of pipe.
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	6	Superficial rust on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2450, Rise (mm): 1750, Type: RPP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	u/s & d/s end above streambed.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Scour at inlet & outlet. 1200 mm CSP 6m south of pipe.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
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		N	5	Superficial damage
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1250			
Scour Protection		N	3	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		N	3	Bevel unsupported for 1.5 m.
Beavers (Y/N)	No			
Downstream End General Rating		**3**	**3**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		5	6	Vertical banks d/s sloughing.
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 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**6**	

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						

Structural Condition Rating (Last/Now) (%)	**77.8/66.7**	**Sufficiency Rating (Last/Now) (%)**	**56.0/52.6**	Est. Repl. Yr	2022	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Item 20. Repair u/s and d/s scour-27-Jul-2002	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	Jordan Evans		
Next Inspection Date	08-Feb-2015	Previous Inspection Date	04-Feb-2009		
Inspection Cycle (Default) (months)	39				
Comment					