Bridge Culvert Inspection

Bridge File Number	76960 -1 Bridge Culvert	Form Type	CUL1
Year Built	1976	Lot No.	4
Bridge or Town Name	BAY TREE	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO HENDERSON CREEK, 8.10.97.8.5, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	49:02 C1 14.211	Assistant Class	
Water Body Cl./Year		Inspection Date	05-Jul-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 9 TWP 79 RGE 12 W6M	Data Entry Date	15-Aug-2011
Longitude, Latitude	-119:48:50, 55:50:12	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	13-Jul-2011
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	10.5 /	Dept. Review Date	16-Nov-2011
AADT/Year	1,140 / 2010 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	2		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1830	MP	27.4	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	OH power in N row & 50m East.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Gradual curve to the east with good sight distance, passing allowed both directions. Well access road 20 west.
Vertical Alignment		8	8	
Roadway Width (m)	10.500			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
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		5	5	
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		4	5	Fill placed around bevel at beaver dam, recently removed.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	5	
Beavers (Y/N)	Yes			
Upstream End General Rating		**4**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1830, Type: MP**)				
Barrel Last Accessible Date	06-Jul-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	4	
Measured Rise (mm)	1684			at c/l
Measured At Ring No.	1			
Sag (mm)	146			
Percent Sag	8			
Sidewall		5	5	
Measured Span (mm)	1946			at c/l
Measured At Ring No.	1			
Deflection (mm)	116			
Percent Deflection	6			
Floor		4	4	Deep pitting and scaling rust on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	260			
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	Deep pitting and scaling rust on bottom 1/3 of pipe.
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): , Rise (mm): 1830, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Drift @ u/s end indicates maybe undersized.-27-Oct-2009
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**5**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	Minor construction damage along top.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	50			
Scour Protection		6	6	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				-0.1 Drift @ 100mm above crown-27-Oct-2009
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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) (%)	**55.6/44.4**	**Sufficiency Rating (Last/Now) (%)**	**54.7/50.6**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	MONITOR EROSION, RUST, SAG AND DEFLECTIONS.	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	Shane Hall	Previous Assistant's Name			
Next Inspection Date	05-Apr-2013	Previous Inspection Date	27-Oct-2009		
Inspection Cycle (Default) (months)	21				
Comment					