Bridge Culvert Inspection

Bridge File Number	01905 -1 Bridge Culvert	Form Type	CUL1
Year Built/Lined	1972/2008	Lot No.	4
Bridge or Town Name	BUCK LAKE	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO BUCKLAKE CREEK, 6.132.2.8, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	22:28 C1 14.116	Assistant Class	
Water Body Cl./Year		Inspection Date	25-Jun-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 17 TWP 47 RGE 6 W5M	Data Entry Date	20-Aug-2012
Longitude, Latitude	-114:51:18, 53:03:22	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	05-Jul-2012
Contract Main. Area	CMA17	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	11.1 / 30 deg. (RHF)	Dept. Review Date	21-Aug-2012
AADT/Year	2,380 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	35		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
2	MAIN FULL LINER	-	1067	SSP	39			ROUND
Special Features								
Special Features Comment		Augered steel pipe.						

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	4 wire o/h, E r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Crest hill to the South - no passing SB lane.
Vertical Alignment		7	7	
Roadway Width (m)	11.100			Wide transv. crack at culvert, sealed.
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4**)				
Guardrail (Y/N)	Yes			Minor creasing; still functional.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		Water to within 90mm of top of liner.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End			X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			5	Some rock, riprap; mostly natural.
(Type : **NATURAL, RIP RAP**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion			5	
Beavers (Y/N)	No			
Upstream End General Rating			**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1067, Type: SSP**)				
Barrel Last Accessible Date	11-Jan-1998			(Original barrel not accessible due to liner. Liner inspected as barrel. D.L. 30May2006). Submerged pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor			N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			N	
Separation (mm)				
Longitudinal Seams			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			X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	POS			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1067, Type: SSP**)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy			5	
Baffle			X	
(Type :)				
Waterway Adequacy			4	Capacity may be a concern.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**N**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection			7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion			7	
Beavers (Y/N)	No			
Downstream End General Rating			**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)				Pipe running full. Small size drift.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				Small drift with beaver cut ends at u/s.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**50.7/50.5**	Est. Repl. Yr	2044	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Consider dewater & inspection since it has been several inspection cycles since barrel has not been inspected. Culvert appears to be augered SSP pipe.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	2003.08.18 refurbished culvert will be good until 2050.				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	25-Mar-2014	Previous Inspection Date	02-Feb-2011		
Inspection Cycle (Default) (months)	21				
Comment					