Bridge Culvert Inspection

Bridge File Number	09894 -2 Bridge Culvert	Form Type	CUL1
Year Built	2001	Lot No.	2
Bridge or Town Name	SILVERWOOD	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO SADDLE BURNT RIVER, 8.10.72.13, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	2:70 C1 9.980	Assistant Class	
Water Body Cl./Year		Inspection Date	06-Jul-2011
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	SW SEC 15 TWP 77 RGE 5 W6M	Data Entry Date	12-Aug-2011
Longitude, Latitude	-118:41:55, 55:40:00	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	12.6 /	Dept. Review Date	18-Nov-2011
AADT/Year	3,410 / 2010 (A)	Follow-Up By	
Road Classification	RAU-213.4-120		
Detour Length (km)	40		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3050	SP	100.58	152X51	5.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West & East r/w	Gas	
Power	East r/w - 7 wire	Municipal	
Others		Problem (Y/N)	Yes
Remarks	Temporary cable 10m d/s.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Approaches and field acceses all sides.
Vertical Alignment		8	8	
Roadway Width (m)	13.400			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **10**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Damage to top from drift removal.-
Collar		7	7	4 hair line cracks on each side.
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)	300			
Scour Protection		5	4	Large quantity of riprap has washed into bevel and first 2 rings. u/s bank turf reinforcement has been torn away leaving bank exposed - photo
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		5	4	u/s bank exposed
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3050, Type: SP**)				
Barrel Last Accessible Date	06-Jul-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2950			
Measured At Ring No.	13			
Sag (mm)	100			
Percent Sag	3			
Sidewall		8	8	
Measured Span (mm)	3095			
Measured At Ring No.	13			
Deflection (mm)	45			
Percent Deflection	1			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)	0			
Longitudinal Seams		9	9	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		8	8	
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): 3050, Type: SP**)				
Fish Passage Adequacy		9	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

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		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	780			
Scour Protection		5	4	1.8m vertical bank D/S of berm and riprap washed D/S
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		5	4	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		4	4	Vertical banks u/s & d/s. Banks sloughing.
HWM (m below Top of Culvert)				(Hwm 93/06/08. 3.2 m above S/B.)
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		**4**	**4**	

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	Repair u/s turf reinforcement				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**75.3/74.1**	Est. Repl. Yr	2047	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Inform Telus of the temporary line Monitor banks d/s	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	06-Apr-2013	Previous Inspection Date	11-Nov-2009		
Inspection Cycle (Default) (months)	21				
Comment					