Bridge Culvert Inspection

Bridge File Number	72151 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	4
Bridge or Town Name	SEXSMITH	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO KLESKUN CREEK, 8.10.58.13.4.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	674:02 C1 14.197	Assistant Class	
Water Body Cl./Year		Inspection Date	03-May-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 4 TWP 74 RGE 4 W6M	Data Entry Date	11-Jun-2010
Longitude, Latitude	-118:32:44, 55:22:27	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	07-Jun-2010
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	9.6 /	Dept. Review Date	19-Aug-2010
AADT/Year	900 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	12		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2134	1549	RPP	25	152X51	3.0	PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH r/w	Gas	30 M west
Power	16 M N. FROM C/L-3 wire	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Residence entrance at site.
Vertical Alignment		8	8	
Roadway Width (m)	9.600			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream 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	

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

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2134, Rise (mm): 1549, Type: RPP**)				
Barrel Last Accessible Date	03-May-2010			Water 550mm deep
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	5	Measured with rod and laser due to water level.
Measured Rise (mm)	1443			
Measured At Ring No.	5			
Sag (mm)	106			
Percent Sag	7			
Sidewall		6	N	Couldn't measure span due to water level.
Measured Span (mm)	2210			
Measured At Ring No.	4			
Deflection (mm)	76			
Percent Deflection	4			
Floor		5	5	Poor nesting of longitudinal seams from ring 7-9. Bolt tipping @ ring 6, long. seam.
Bulge (mm)	100			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	Numerous dents thoughout pipe no greater than 200mm x 200mm.
Separation (mm)	0			
Longitudinal Seams		5	5	
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		4	4	Pitting rust on floor of pipe.
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): 2134, Rise (mm): 1549, Type: RPP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**5**	

Downstream 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 :)				
Cutoff Wall		X	X	
Bevel End		N	6	
Heaving (mm)	150			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	7	Snowcovered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	45 degree bend into culvert.
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(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) (%)	**44.4/55.6**	**Sufficiency Rating (Last/Now) (%)**	**59.6/63.5**	Est. Repl. Yr	2013	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor 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	Colin Roy	Previous Assistant's Name			
Next Inspection Date	03-Aug-2013	Previous Inspection Date	01-Feb-2007		
Inspection Cycle (Default) (months)	39				
Comment					