Bridge Culvert Inspection

Bridge File Number	08918 -2 Bridge Culvert	Form Type	CUL1
Year Built	1999	Lot No.	4
Bridge or Town Name	ST. LINA	Inspector Name	Wade Nanninga
Located Over	ST LINA CREEK, 7.22, WATERCRS-ST	Inspector Class	BR CLS A
Located On	867:02 C1 17.157	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Dec-2012
Legal Land Location	SW SEC 31 TWP 61 RGE 10 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-111:30:12, 54:18:48	Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	09-Jan-2013
Clear Roadway/Skew	10.6 / -35 deg. (LHF)	Dept. Reviewer Name	Paul Catt
AADT/Year	230 / 2011 (A)	Dept. Review Date	18-Jan-2013
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3000	MP	51	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Middle of sag. Limited site to North.
Vertical Alignment		7	6	
Roadway Width (m)	10.600			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.8**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	File tag installed on top of headwall.
Collar		9	9	
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)	800			
Scour Protection		7	7	
(Type : **RIP RAP, GEOTEXTILE**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	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): , Rise (mm): 3000, Type: MP**)				
Barrel Last Accessible Date	14-Dec-2012			Barrel half filled with water/ice. 1.2m crown to ice.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Sag estimated 2.0%.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	53			
Percent Sag	2			
Sidewall		7	7	2.0% estimate. Measured 2900mm at ice leve.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	53			
Percent Deflection	2			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	30			
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		7	7	
Corrosion By Soil (Y/N)	No			At water/ice line.
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): 3000, Type: MP**)				
Fish Passage Adequacy		8	8	
Baffle		N	N	
(Type : **LARGE BOULDER**)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**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		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		7	7	
(Type : **RIP RAP, GEOTEXTILE**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	Meanders through wide valley with low banks.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			Beaver dam 50m downstream.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**8**	

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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**70.6/81.2**	Est. Repl. Yr	2048	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		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	Wade Nanninga	Previous Assistant's Name	
Next Inspection Date	14-Mar-2016	Previous Inspection Date	28-Apr-2011
Inspection Cycle (Default) (months)	39		
Comment			