Bridge Culvert Inspection

Bridge File Number	78053 S-2 Bridge Culvert	Form Type	CULE
Year Built	1976	Lot No.	4
Bridge or Town Name	WILSON SIDIN	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO OLDMAN RIVER, 2.12.18, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	4:06 L1 12.457	Assistant Class	
Water Body Cl./Year		Inspection Date	24-Mar-2013
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SW SEC 34 TWP 7 RGE 20 W4M	Data Entry Date	11-Apr-2013
Longitude, Latitude	-112:38:42, 49:35:59	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	07-Apr-2013
Contract Main. Area	CMA25	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	15 /	Dept. Review Date	22-Apr-2013
AADT/Year	6,080 / 2012 (A)	Follow-Up By	
Road Classification	RFD-412.4-130		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1829	1118	FP	25	68X13		ARCH
1	D/S	2400	2400	MP	3	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	4m & 15m West. Buried high voltage crossing 70m North.	Municipal	
Others	Lights to south. Fibre optics buried East ROW.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve to North. Turning lane over pipe.
Vertical Alignment		8	8	
Roadway Width (m)	30.000			
Embankment		7	7	3:1 @ pipe.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		West.
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		N	N	PR 7. Almost entirely ice covered.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**N**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Barrel Last Accessible Date	30-Aug-2009			Not accessible due to ice almost to crown.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	PR 7.
Measured Rise (mm)	1070			
Measured At Ring No.	3			
Sag (mm)	48			
Percent Sag	4			
Sidewall		N	N	PR 7.
Measured Span (mm)	1850			
Measured At Ring No.	3			
Deflection (mm)	21			
Percent Deflection	1			
Floor		N	N	PR 5.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	PR 6.
Separation (mm)	40			
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		N	N	(Superficial corrosion @ floor and haunches) 30- Aug- 2009
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): 1829, Rise (mm): 1118, Type: FP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	PR 7.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): 2400, Rise (mm): 2400, Type: MP**)				
Barrel Last Accessible Date	22-Jun-2011			Barrel not visible due to grout.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Measured at grout face.
Measured Rise (mm)	2400			
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	7	Measured at grout face.
Measured Span (mm)	2400			
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	200mm deep ice on floor and ingrown.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)				
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		6	N	(Superficial corrosion @ floor & haunches.) 30- Aug- 2009 Superficial corrosion at water line.
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: D/S, Span (mm): 2400, Rise (mm): 2400, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East
End Treatment (Concrete, Steel, Others, None)	STEEL			2400mm dia CSP bevel extension encased with grout.
Headwall		7	7	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	In grown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Curve @ West.
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

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) (%)**	**64.1/72.7**	Est. Repl. Yr	2030	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	Jon Davies	Previous Assistant's Name			
Next Inspection Date	24-Dec-2014	Previous Inspection Date	22-Jun-2011		
Inspection Cycle (Default) (months)	21				
Comment					