

Bridge Culvert Inspection				
Bridge File Number	73559 -1 Bridge Culvert		Form Type	CULM
Year Built	1962		Lot No.	2
Bridge or Town Name	CHRISHOLM		Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO CHISHOLM CREEK, 8.11.83.1, WATERCRS-ST		Inspector Class	BR CLS B
Located On	44:04 C1 34.405		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	16-Apr-2013
Legal Land Location	SE SEC 14 TWP 68 RGE 1 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:02:21, 54:53:11		Data Entry Date	23-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA10		Review Date	21-Apr-2013
Clear Roadway/Skew	11.4 / 15 deg. (RHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	1,900 / 2012 (A)		Dept. Review Date	01-May-2013
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	20			

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	32.9	152X51	2.8	ELLIPSE
2	MAIN	-	900	MP	32.9			ROUND
Special Features								
Special Features Comment	900 CSP not found, assumed to be submerged.							

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	2 wires West & East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag at crown on u/s end.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Entrance to North & South. VC North.
Vertical Alignment	8	8	
Roadway Width (m)	11.400		
Embankment	8	8	
Sideslope (__:1)	4.0		
(Height of Cover(m) : 1.5)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	E		South pipe.
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
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		5	5	Torn from drift removal SE corner.
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	0			
Scour Protection		5	5	Settlement along sides of bevel 150-300mm.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	Yes			Debris at inlet
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Barrel Last Accessible Date	16-Apr-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Rise not measured due to ice. Sag est at less than 3%.
Measured Rise (mm)	2245			
Measured At Ring No.	8			
Sag (mm)	19			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2025			
Measured At Ring No.	8			
Deflection (mm)	6			
Percent Deflection	0			
Floor		N	N	Ice covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	Lower 1/3 not rated
Separation (mm)	0			
Longitudinal Seams		N	7	Lower 1/3 not rated
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			1N Stagger
Longitudinal Stagger (Y/N)	Yes			
Coating		N	5	Pitting rust lower 1/3.-10-Sep-2009
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
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		N	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		5	5	Minor dents from debris removal.
Heaving (mm)	50			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North pipe Submerged not visible
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		N	N	Perforated on NE side. -10-Sep-2009
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	GR carried forward from 10-Sep-2009
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 900, Type: MP)				
Barrel Last Accessible Date	08-Jun-2004			Submerged.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	No evident problems.-10-Sep-2009
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	Perforations in floor & sidewall-photo Wall breaks apart when hit with hammer.-10-Sep-2009
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
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	50mm dia. perforations in floor and sidewall. photo-10-Sep-2009
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 900, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		6	N	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	N	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		2	2	GR carried fwd from 10-Sep-2009
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		North pipe Submerged - not visible
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Perforated from corrosion.-10-Sep-2009
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		2	2	GR carried fwd from 10-Sep-2009
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		6	6	
HWM (m below Top of Culvert)				Submerged in 2011/2013
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	8	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION	2013	Remove debris from inlet.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Consider abandoning 900mm CSP by grouting.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	34.1/38.4	Est. Repl. Yr	2026	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	Low rating advisory sent to AT.-15-Sep-2009, 15-Jul-2011 and 18-Apr-2013 to Jeff Zhang.		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	Eric Carcoux		Previous Assistant's Name				
Next Inspection Date	16-Jan-2015		Previous Inspection Date	13-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							