

Bridge Culvert Inspection				
Bridge File Number	09744 -1 Bridge Culvert		Form Type	CULM
Year Built	1989		Lot No.	4
Bridge or Town Name	ACME		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO KNEEHILLS CREEK, 3.46.17, WATERCRS-ST		Inspector Class	BR CLS A
Located On	575:02 C1 16.799		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	25-Jan-2011
Legal Land Location	SW SEC 27 TWP 29 RGE 26 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:35:02, 51:30:12		Data Entry Date	03-Mar-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA29		Review Date	03-Feb-2011
Clear Roadway/Skew	9.4 /		Dept. Reviewer Name	Chris Black
AADT/Year	740 / 2009 (A)		Dept. Review Date	04-Mar-2011
Road Classification	RCU-209-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2700	MP	37	125X26	2.8	ROUND
2	MAIN	-	2700	MP	37	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	South side.		Gas	
Power	N of C/L 3 wire O/H 15m		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Farm approach 50m East. Grade increases to East.
Vertical Alignment		8	8	
Roadway Width (m)	9.400			
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		8	8	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	S		
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		N	7	(Floor silted in N half. 04-Oct-2004). Iced over.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
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): 2700, Type: MP)				
Barrel Last Accessible Date	25-Jan-2011			West pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	(Avg rise @ ends 2735mm. Rise @ mid culvert 2680mm. 04-Oct-2004). Was unable to measure rise due to ice on floor. (04Oct2004).
Measured Rise (mm)	2735			
Measured At Ring No.	1			
Sag (mm)	35			
Percent Sag	1			
Sidewall		7	7	At mid-span. -1.5%
Measured Span (mm)	2660			
Measured At Ring No.	3			
Deflection (mm)	40			
Percent Deflection	1			
Floor		N	N	iced over.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	50			
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	6	Surface patina floor, lower walls.
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): , Rise (mm): 2700, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			100mm silt D/S end. Small branches 1.5m long in barrel. Minor drift.
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		7	7	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	X	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	450			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		
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
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2700, Type: MP)				
Barrel Last Accessible Date	25-Jan-2011			East pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	(Avg rise @ ends 2735mm. Rise @ mid culvert 2680mm. 04-Oct-2004). Was not able to measure rise due to ice on floor.
Measured Rise (mm)	2735			
Measured At Ring No.	1			
Sag (mm)	35			(Upwards. 04Oct2004). 1.3%
Percent Sag	1			
Sidewall		7	7	Sides wavy - minor @ midspan.
Measured Span (mm)	2753			At midspan.
Measured At Ring No.	3			
Deflection (mm)	53			
Percent Deflection	2			
Floor		N	N	Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	5	No infiltration.
Separation (mm)	120			
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	6	Surface patina floor & lower walls.
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 # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2700, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			100mm silt D/S end. Small branches 1.5m long in barrel. Minor drift.
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered.
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	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
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		8	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) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	80.2/80.0	Est. Repl. Yr	2035	Maint. Req'd. (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	Bryan Wai		Previous Assistant's Name				
Next Inspection Date	25-Apr-2014		Previous Inspection Date	20-Feb-2008			
Inspection Cycle (Default) (months)	39						
Comment							