

Bridge Culvert Inspection			
Bridge File Number	78650 -1 Bridge Culvert	Form Type	CULM
Year Built	1976	Lot No.	4
Bridge or Town Name	NAMAO	Inspector Name	Shane Hall
Located Over	TRIBUTARY TO NORTH SASKATCHEWAN RIVER, 6.71, WATERCRS-ST	Inspector Class	BR CLS A
Located On	37:04 C1 21.430	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	13-Dec-2011
Legal Land Location	SW SEC 2 TWP 55 RGE 23 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:18:58, 53:42:57	Data Entry Date	29-Jan-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09	Review Date	19-Jan-2012
Clear Roadway/Skew	8.9 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	6,310 / 2010 (A)	Dept. Review Date	02-Feb-2012
Road Classification	RAU-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	-	1524	MP	28	68X13	2.8	ROUND
2	MAIN	-	1524	MP	28	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	2 O/H lines N r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection with Hwy 28A East.
Vertical Alignment		8	8	2 cracks in ACP over both pipes, width of roadway. One over each pipe.
Roadway Width (m)	8.900			
Embankment		8	8	
Sideslope (_ :1)	3.0			
(Height of Cover(m) : 1.6)				
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		N		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Barrel Last Accessible Date	13-Dec-2011			West pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Top of crown bend down 50mm S. end.
Measured Rise (mm)	1455			At c/l of pipe.-16-Mar-2010
Measured At Ring No.				Tear in N end near crown.
Sag (mm)	69			Ice on floor, rise not measurable.
Percent Sag	5			
Sidewall		6	6	Near CL
Measured Span (mm)	1568			
Measured At Ring No.				
Deflection (mm)	44			
Percent Deflection	3			
Floor		N	N	Approx 100mm - 150mm of silt & 500mm deep water.-16-Mar-2010
Bulge (mm)	0			Ice on floor approx. 300mm thick.
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	20mm separation in collar, North coupler.
Separation (mm)	180			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Coating		4	4	Bottom 1/2 has pitted rust, scaling.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		West pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		East pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	400			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	6	Bevel projects from fill about 1m. Grassed and stable.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 150)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Barrel Last Accessible Date	13-Dec-2010			East pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	X	Dents in roof near D/S end.
Measured Rise (mm)	1470			Centerline of pipe.-16-Mar-2010
Measured At Ring No.				Ice on floor, rise not measurable.
Sag (mm)	54			
Percent Sag	4			
Sidewall		6	6	@ cl
Measured Span (mm)	1562			
Measured At Ring No.				
Deflection (mm)	38			
Percent Deflection	3			
Floor		N	N	Silt covered. Approx 150mm deep silt.-16-Mar-2010
Bulge (mm)	0			Floor ice covered ~ 300mm thick
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	
Separation (mm)	180			
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)				

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)					
Coating		4	4	Pitted/scaling rust bottom 1/2.	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	NEG				
Ponding (Y/N)	No				
Fish Passage Adequacy		6	6		
Baffle		X	X		
(Type :)					
Waterway Adequacy		6	6		
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		6	6		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		S		East pipe.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		6	6	Slight bend in West bevel wall.	
Heaving (mm)	100				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	500				
Scour Protection		6	6	Settlement up to 400mm along sides of bevel. Stable.	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 200)					
Scour/Erosion		6	6		
Beavers (Y/N)	No				
Downstream End General Rating		6	6		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		5	5	90 degree bend into ditch to east, low velocity creek.	
Bank Stability		7	7		
HWM (m below Top of Culvert)				HWM not visible.	
Drift (Y/N)	No				

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				
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) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	61.0/61.0	Est. Repl. Yr	2019	Maint. Req. (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	Arnold Assenheimer		Previous Assistant's Name				
Next Inspection Date	13-Sep-2013		Previous Inspection Date	16-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							