

Bridge Culvert Inspection			
Bridge File Number	76055 -1 Bridge Culvert	Form Type	CULM
Year Built	1954	Lot No.	1
Bridge or Town Name	CHINOOK VALL	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO CARDINAL CREEK, 8.10.48.3.1, WATERCRS-ST	Inspector Class	BR CLS B
Located On	35:04 C1 17.727	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Nov-2011
Legal Land Location	SW SEC 24 TWP 85 RGE 24 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:39:47, 56:22:53	Data Entry Date	13-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA04	Review Date	12-Dec-2011
Clear Roadway/Skew	10.4 /	Dept. Reviewer Name	Steve Pasquan
AADT/Year	1,910 / 2010 (A)	Dept. Review Date	10-Jan-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	10		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1724	1901	SPE	28.7	152X51	2.8	ROUND
2	MAIN	-	1200	MP	28.7	75X25	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	O/H East ditch	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Limited site distance, due to crest of hill to north of pipes. No passing north bound lane.
Vertical Alignment	6	6	
Roadway Width (m)	10.400		
Embankment	N	3	3mX4mX1.2m failure on west embankment due to infiltration in N pipe, 1 m from road shoulder.(photo) 9mX1.5mx1m scour in NE ditch.-May 15, 2008)
Sideslope (__:1)	3.5		
(Height of Cover(m) : 1.5)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	3	6	

Upstream 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	

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		N	4	(Scaling & pitting rust, small preferations in floor(20mmx20mm)-May 15, 2008).
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		N	3	Undermining of bevel 0.7m deep bevel unsupported.Rock overgrown and sparse.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	3	
Beavers (Y/N)	No			Lots of drift in U/S bevel from U/S dam.-photo
Upstream End General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)				
Barrel Last Accessible Date	16-Nov-2011			(South pipe)
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	1m in from outlet. Crown torn from equipment-300x360mm hole. (Level 2 barrel measurements 2008. Roof est., ice on floor.-May 15, 2008) Floor covered with ice.
Measured Rise (mm)	1750			
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		5	5	Scaling and minor pitting rust.
Measured Span (mm)	1762			
Measured At Ring No.	6			
Deflection (mm)	38			
Percent Deflection	2			
Floor		N	5	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)				
Longitudinal Seams		6	6	1N Stagger.
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			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1724, Rise (mm): 1901, Type: SPE)					
Coating		4	4	Scaling and pitting rust 1/2 way up pipe. Alkaling stains through roof bolts.	
Corrosion By Soil (Y/N)	Yes				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	NEG				
Ponding (Y/N)	No				
Fish Passage Adequacy		6	5	U/S end.-drift accumulation	
Baffle		X	X		
(Type :)					
Waterway Adequacy		7	6	Drift in centre of pipe.	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	Yes				
Barrel General Rating		5	5		
Downstream 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 :)					
Cutoff Wall		X	X		
Bevel End		5	5	Only 60% visible. Covered with ice and snow. Pitting rust	
Heaving (mm)	100				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	100				
Scour Protection		5	6		
(Type : NATURAL)					
(Avg. Rock Size(mm) :)					
Scour/Erosion		5	6	No evident problems.	
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		W		North 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		N	3	Perforations in floor & walls, (60mmx60mm) felt w/ foot.-photo Completely covered with snow-u/s not visible.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	3	300mm x1.5m scour around bevel.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	3	
Beavers (Y/N)	No			Drift in bevel from U/S dam.-May 15, 2008
Upstream End General Rating		3	3	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	15-May-2008			(North pipe) Viewed from both ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	Ice covered.-May 15, 2008
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	infiltration 4m from U/S end.-May 15, 2008
Separation (mm)	250			
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): 1200, Type: MP)					
Coating		N	N	Severe scaling and pitting rust, viewed from ends.-May 15, 2008	
Corrosion By Soil (Y/N)	No				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	NEG			Not visible.	
Ponding (Y/N)	Yes				
Fish Passage Adequacy		N	N		
Baffle		N	N		
(Type :)					
Waterway Adequacy		N	N	U/S and D/S ends of pipe over growing with vegetation.-May 15, 2008	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	Yes				
Barrel General Rating		3	3	Gr carried forward-May 15, 2008	
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		E		North pipe	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		N	4	Severe scaling and pitting rust. 1/2 full of water-May 15, 2008	
Heaving (mm)	50				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	100				
Scour Protection		5	5	.	
(Type : NATURAL)					
(Avg. Rock Size(mm) :)					
Scour/Erosion		5	5		
Beavers (Y/N)	No				
Downstream End General Rating		5	4		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		4	4	Poor alignment U/S due to dam.	
Bank Stability		4	4	Tall grass in trees D/S end. Fallen trees in stream.	
HWM (m below Top of Culvert)	300.0			HWM not visible. @ u/s channel.	
Drift (Y/N)	Yes				

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			Large dam 20m U/S diverting channel.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

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	2012	Repair embankment					
OTHER ACTION	2012	Engineering assessment for replacement options.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	33.9/41.5	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes
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	Brian Pientsch		Previous Assistant's Name	Lisbeth Medina			
Next Inspection Date	16-Aug-2013		Previous Inspection Date	09-Feb-2010			
Inspection Cycle (Default) (months)	21						
Comment							