

Bridge Culvert Inspection			
Bridge File Number	78093 -1 Bridge Culvert	Form Type	CULE
Year Built	1975	Lot No.	4
Bridge or Town Name	CARROT CREEK	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO CARROT CREEK, 8.11.107.20.1, WATERCRS-ST	Inspector Class	BR CLS B
Located On	16:08 R1 7.188;16:08 L1 7.178	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Aug-2012
Legal Land Location	NW SEC 28 TWP 53 RGE 13 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:51:40, 53:36:32	Data Entry Date	04-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	27-Aug-2012
Clear Roadway/Skew	24.2 / 30 deg. (RHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	6,840 / 2011 (A)	Dept. Review Date	18-Sep-2012
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	1600	MP	43.9	68X13	2.8	ROUND
1	MAIN	-	1450	MP	57.6	68X13	2.8	ROUND
2	U/S	-	1200	MP	44.8	68X13	2.8	ROUND
2	MAIN	-	1200	MP	52	68X13	2.8	ROUND
Special Features	VERT STEEL STRUTS							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	N ROW
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	File tag U/S West pipe (South).		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	L.R. intersection 200m East, Hwy curves 300m to West. Crest to West.
Vertical Alignment		8	7	
Roadway Width (m)	24.200			EBL 12.4m, WBL 11.8m.
Embankment		6	6	3:1 on south side.
Sideslope (__:1)	2.0			
(Height of Cover(m) : 6.3)				
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		S		West span.
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		5	5	Minor dents from riprap install.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP)				
Barrel Last Accessible Date	10-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Flattening limited to bevel + 1st section.
Measured Rise (mm)	1462			
Measured At Ring No.	1			
Sag (mm)	108			
Percent Sag	7			
Sidewall		4	4	Flattening limited to bevel + 1st sections. Pipe has good shape past this point.
Measured Span (mm)	1730			
Measured At Ring No.	1			
Deflection (mm)	130			
Percent Deflection	8			
Floor		5	5	Rust with pitting.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	First and 2nd seam couplers displaced. Corrosion of outer coupler.-photo
Separation (mm)	205			
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: U/S, Span (mm): , Rise (mm): 1600, Type: MP)				
Coating		5	5	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Drift caught on struts.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel Extension General Rating		4	4	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1450, Type: MP)				
Barrel Last Accessible Date	01-Oct-2007			Viewed from end, previous comments are for upstream 1600 section.
Special Features				
Special Feature		7	7	Partial struts thru 1600-1450 transition.
(Type : VERT STEEL STRUTS)				
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	Superficial rust but no pitting.-20-Nov-2008
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
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)				

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1450, Type: MP)					
Coating		N	N		
Corrosion By Soil (Y/N)	Yes				
Corrosion By Water (Y/N)	Yes				
Camber POS/ZERO/NEG	NEG				
Ponding (Y/N)	No				
Fish Passage Adequacy		5	5		
Baffle		X	X		
(Type :)					
Waterway Adequacy		4	4	Drift caught on struts. just before 1450mm dia main pipe.	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	Yes				
Barrel General Rating		N	N	G.R. was "5" from 01/Oct/2007.	
Downstream 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		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		5	5		
Heaving (mm)	200				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	300				
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		S			
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)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
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: U/S, Span (mm): , Rise (mm): 1200, Type: MP)				
Barrel Last Accessible Date	20-Nov-2008			Viewed from ends, shape and condition appear ok.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Rise @ South end of pipe, 1230. Rise @ North end of pipe, 1244. Rise @ 1/4 from South end, 1209. 01/Oct/2007)
Measured Rise (mm)	1125			
Measured At Ring No.				
Sag (mm)	75			
Percent Sag	6			
Sidewall		N	N	(Span @ South end, 1280. Span @ North end, 1200. Span @ 1/4 from South end, 1301. 01/Oct/2007)
Measured Span (mm)	1301			
Measured At Ring No.				
Deflection (mm)	101			
Percent Deflection	8			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	200mm separation with ingress approx 7m from South end. At coupler.-Nov, 2008
Separation (mm)	200			
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: U/S, Span (mm): , Rise (mm): 1200, Type: MP)				
Coating		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			Ponding North half of pipe.
Fish Passage Adequacy		X	X	Overflow pipe
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel Extension General Rating		4	4	G.R. was "4" carried forward from 01/Oct/2007.

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		6	6	Mostly covered by vegetation.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
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		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			

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		6	6	

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) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	46.4/46.2	Est. Repl. Yr	2025	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor deflections in 1600 bevel 1st section. Monitor corrosion at u/s seams.		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	Todd Warshawski		Previous Assistant's Name				
Next Inspection Date	10-May-2014		Previous Inspection Date	16-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							