

Bridge Culvert Inspection				
Bridge File Number	07450 -1 Bridge Culvert		Form Type	CUL1
Year Built	1959		Lot No.	1
Bridge or Town Name	RICH VALLEY		Inspector Name	Eric Carcoux
Located Over	TRIBUTARY TO MACDONALD CREEK, 8.11.84.35.3, WATERCRS-ST		Inspector Class	BR CLS A
Located On	33:04 C1 18.937		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	16-Jan-2013
Legal Land Location	NW SEC 2 TWP 57 RGE 3 W5M		Data Entry By	Lisa Fairhurst
Longitude, Latitude	-114:20:57, 53:53:60		Data Entry Date	17-Jan-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Stew Hagan
Contract Main. Area	CMA10		Review Date	17-Jan-2013
Clear Roadway/Skew	9.5 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	2,050 / 2011 (A)		Dept. Review Date	18-Jan-2013
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	30			

Bridge Culvert Information								
Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2134	1549	RPP	26.8	152X51	3.0	PIPE ARCH
Special Features	VERT STEEL STRUTS							
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	West r/w.	Gas	
Power	4 wires East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	8	Field entrances to North.
Vertical Alignment		7	7	
Roadway Width (m)	9.500			
Embankment		8	8	
Sideslope (__:1)	3.5			
(Height of Cover(m) : 2)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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
Bevel End		5	5	Minor mower damage. Visible on edge.
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	Ice covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		5	N	
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: MAIN, Span (mm): 2134, Rise (mm): 1549, Type: RPP)				
Barrel Last Accessible Date	16-Jan-2013			Ice to crown 1m
Special Features				
Special Feature		7	7	12 steel struts installed. Bottom not viewed
(Type : VERT STEEL STRUTS)				
Special Feature				
(Type :)				
Roof		2	2	Reverse curvature in 2 spots. R3 & R5 some minor dents and small holes from construction. Roof strutted to ring #7. Reverse roof curvature in R5, strutted.
Measured Rise (mm)	1320			
Measured At Ring No.	3			
Sag (mm)	229			
Percent Sag	15			
Sidewall		3	N	(Corrugations distorted @ haunches. Floors lower sidewall severely scaled with perforations. - 23Aug11)
Measured Span (mm)	2231			
Measured At Ring No.	6			
Deflection (mm)	97			
Percent Deflection	5			
Floor		3	N	(Perforations in floor - unable to get photo due to water level. - 23Aug11)
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		3	N	(88mm of steel between cracks at worst spot, ring 4. Ring 4 & 7 cracked. Cracks located along lower longitudinal seam (sidewall). - 23Aug11)
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	88			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		3	N	(Numerous perforations on crests in haunch area up to 25mm dia. Unable to get photo due to water level. - 23Aug11)
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2134, Rise (mm): 1549, Type: RPP)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	(Iced to crown. 97/02/04)
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	G.R. increased due to struts.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	N	Ice covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		6	N	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	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	2013	Replace pipe.		2013						
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	42.1/42.8	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	Monitor growth of cracked rings. Monitor perforations. Inspect at 12 month cycle until replaced. Prelim design underway Low advisory rating sent to R Hussain & B Herrick 17 Jan 2013		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	Melanie Johnson	Previous Assistant's Name								
Next Inspection Date	16-Mar-2014	Previous Inspection Date	23-Aug-2011							
Inspection Cycle (Modified) (months)	14									
Comment										

Maintenance Recommendations

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