

Bridge Culvert Inspection			
Bridge File Number	00827 -1 Bridge Culvert	Form Type	CUL1
Year Built	1956	Lot No.	1
Bridge or Town Name	LUNDBRECK	Inspector Name	Garry Roberts
Located Over	CONNELLY CREEK, 2.12.37.5, WATERCRS-ST	Inspector Class	BR CLS A
Located On	22:06 C1 2.092	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Jun-2012
Legal Land Location	NW SEC 35 TWP 7 RGE 2 W5M	Data Entry By	Erin Roberts
Longitude, Latitude	-114:10:55, 49:36:20	Data Entry Date	11-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Joel Wozney
Contract Main. Area	CMA26	Review Date	26-Jun-2012
Clear Roadway/Skew	11.7 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,360 / 2011 (A)	Dept. Review Date	12-Jul-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	13		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2605	2880	SPE	75.6	152X51	4.2	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments							
Telephone	Plowed in East ditch.			Gas	300m North. Gas crosses road.		
Power	3 wire OH East of c/l.			Municipal			
Others				Problem (Y/N)	No		
Remarks	(Cable exposed on East sideslope - fibre optic.)						

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curve to South. No passing SB lane. Crest curve about 150m South.
Vertical Alignment		5	5	
Roadway Width (m)	11.700			
Embankment		6	6	
Sideslope (:1)	3.5			
(Height of Cover(m) : 8.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West
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		4	4	Bevel bent 200mm at South corner
Heaving (mm)	250			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		4	4	Erosion 400mm x 1500mm @ sides of inlet.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		4	4	
Beavers (Y/N)	Yes			Beaverdam across bevel blocking 80%.
Upstream End General Rating		4	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2605, Rise (mm): 2880, Type: SPE)				
Barrel Last Accessible Date	16-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)	2665			
Measured At Ring No.	4			
Sag (mm)	215			
Percent Sag	7			
Sidewall		3	3	Cracks in the sidewall.
Measured Span (mm)	2835			
Measured At Ring No.	4			
Deflection (mm)	230			
Percent Deflection	8			
Floor		3	3	100x100mm hole in floor @ R-4 Several perforations in South floor haunch of R22 and R23
Bulge (mm)	100			
Measured At Ring No.	4			
Abrasion (Y/N)	Yes			
Circumferential Seams		5	5	Missing isolated bolts.
Separation (mm)	0			
Longitudinal Seams		3	3	20mm gap @ plate @ North sidewall @ ring #1. 10 cracked bolts R4. Minor change in remaining steel from 75 to 65mm. Piping at isolated seams. 1N stagger.
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	65			5 cracked bolts in R22 145mm remaining steel.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	25mm-150mm dia corrosion holes in ring 22 & 23 South haunches. Soil side corrosion at upper seams
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): 2605, Rise (mm): 2880, Type: SPE)				
Fish Passage Adequacy		4	4	Beaver dam blocking passage
Baffle (Type :)		X	X	
Waterway Adequacy		3	3	80% blockage at U/S beaver dam
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		3	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed		ABOVE		
Above/Below (mm)	250			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		3	3	6m dia x 1.5m deep scour hole and bevel undermined.
Scour/Erosion		3	3	
Beavers (Y/N)		No		
Downstream End General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		4	4	Channel makes sharp turn to South at D/S end
Bank Stability		4	4	Vertical bank @ D/S end - rock protection has sloughed down into scour hole or has been moved D/S by flow
HWM (m below Top of Culvert)	1.0			[(Flowed full/93 overflow pipe to North, also ran at least 1/2 full.) 93/07/27.] No HWM 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		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	50 cu.m Class II @ u/s & d/s ends					
REMOVE DRIFT ACCUMULATION	2012	Remove beaver dam					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Concrete Floor					
OTHER ACTION	2012	Consider liner in R4					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	23.9/23.9	Est. Repl. Yr	2018	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	16-Mar-2014		Previous Inspection Date	07-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							