

Bridge Culvert Inspection				
Bridge File Number	76457 -1 Bridge Culvert		Form Type	CUL1
Year Built	1966		Lot No.	1
Bridge or Town Name	LUNDBRECK		Inspector Name	Garry Roberts
Located Over	2ND ORDER TRIBUTARY TO CROWNEST RIVER, 2.12.36.2.1, WATERCRS-ST		Inspector Class	BR CLS A
			Assistant Name	
Located On	3:04 C1 13.660		Assistant Class	
Water Body Cl./Year			Inspection Date	29-Nov-2011
Navigabil. Cl./Year			Data Entry By	Alyssa Boynton
Legal Land Location	SW SEC 30 TWP 7 RGE 1 W5M		Data Entry Date	04-Jan-2012
Longitude, Latitude	-114:08:07, 49:35:10		Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)		Review Date	08-Dec-2011
Contract Main. Area	CMA26		Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	13 /		Dept. Review Date	10-Jan-2012
AADT/Year	3,630 / 2010 (A)		Follow-Up By	
Road Classification	RAU-213.4-120			
Detour Length (km)	3			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1738	1920	SPE	98.8			ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	North r/w		Gas
Power			Municipal
Others	Fibre optic cable in S ditch		Problem (Y/N) No
Remarks	CATV in N ditch-tv cable		

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Gradual sag curve and horizontal curves. Passing allowed. W of 76548
Vertical Alignment		7	7	
Roadway Width (m)	13.000			
Embankment		7	5	3:1 then 3m berm then 4:1 @ S. Slope improve have recently been made to road embankment. Slump at North slope.
Sideslope (:1)	3.0			
(Height of Cover(m) : 8.5)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		7	7	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		South end.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		7	7	some 1000mm rock
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1738, Rise (mm): 1920, Type: SPE)				
Barrel Last Accessible Date	29-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Rings are numbers incorrectly
Measured Rise (mm)	1800			
Measured At Ring No.	17			
Sag (mm)	20			
Percent Sag	1			
Sidewall		6	6	
Measured Span (mm)	1765			
Measured At Ring No.	21			
Deflection (mm)	27			
Percent Deflection	1			
Floor		4	4	Cracked floor seam
Bulge (mm)	100			
Measured At Ring No.	17			
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	3	Crks @ E long lower sidewall seam @ 7 bolts of ring 26 and five bolts of ring 29. 72mm remaining steel @ ring26. And 100mm remaining steel at ring 29, no change from previous inspections.
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	72			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	4	Rust stains through bottom seams. Superficial corrosion on floor. Seams have alkali staining.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1738, Rise (mm): 1920, Type: SPE)					
Ponding (Y/N)	No				
Fish Passage Adequacy		4	4	1000mm drop in u/s end, 400mm drop out of d/s end	
Baffle		X	X		
(Type :)					
Waterway Adequacy		5	5	Has flowed full - Grass on roof bolts. (see HWM notes. Ices at D/S end)	
Icing (Y/N)	No				
Silting (Y/N)	No				
Drift (Y/N)	No				
Barrel General Rating		4	3		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		N		North end.	
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls		X	X		
(Shape :)					
Cutoff Wall		X	X		
Bevel End		7	7		
Heaving (mm)	0				
Invert Above/Below Stream Bed	ABOVE				
Above/Below (mm)	400				
Scour Protection		7	7	Some 500mm of rock	
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 350)					
Scour/Erosion		7	7		
Beavers (Y/N)	No				
Downstream End General Rating		7	7		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		7	7		
Bank Stability		6	6	Steep banks downstream.	
HWM (m below Top of Culvert)	3.8			(Pipe has flowed with approx 2m head. - 920811). No visible HWM.	
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	7		

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) (%)	44.4/33.3	Sufficiency Rating (Last/Now) (%)	46.3/41.3	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	Presently cracked at 2 lower floor seams only. Monitor for crack growth and progression. No change at this inspection from previous (GR Nov 29/2011)		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	29-Aug-2013		Previous Inspection Date	18-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							