

Bridge Culvert Inspection				
Bridge File Number	00450 -1 Bridge Culvert		Form Type	CULE
Year Built	1950		Lot No.	4
Bridge or Town Name	LUNDBRECK		Inspector Name	Garry Roberts
Located Over	ROCK CREEK, 2.12.37.6, WATERCRS-ST		Inspector Class	BR CLS A
Located On	3:04 C1 6.433		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	29-Nov-2011
Legal Land Location	NE SEC 20 TWP 7 RGE 2 W5M		Data Entry By	Alyssa Boynton
Longitude, Latitude	-114:13:50, 49:34:54		Data Entry Date	09-Jan-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA26		Review Date	08-Dec-2011
Clear Roadway/Skew	13 /		Dept. Reviewer Name	Tim Davies
AADT/Year	4,740 / 2010 (A)		Dept. Review Date	10-Jan-2012
Road Classification	RAU-213-120		Follow-Up By	
Detour Length (km)	25			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	3050	SP	21.3	152X51		ROUND
1	MAIN	3050	2290	AP	67.1			ARCH
1	D/S	-	3050	SP	40.8	152X51		ROUND
Special Features	SHOTCRETE BEAM							
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South ditch	Gas	
Power	3 wire N. ditch 20 m from c.l	Municipal	
Others	Fibre optics @ N R/W	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve to East. Hill to west.
Vertical Alignment		6	6	No passing.
Roadway Width (m)	13.000			
Embankment		5	5	Starts at 3:1 and finishes 2:1 both sides.
Sideslope (__:1)	2.0			Rock lined erosion ditch at NW
(Height of Cover(m) : 22)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

Upstream 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 :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		4	5	Many bolts missing or loose. Bevel is twisted and pushed in 150mm along North side- still functional
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		4	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 3050, Type: SP)				
Barrel Last Accessible Date	29-Nov-2011			SPCSP extension
Special Features				
Special Feature		7	7	Shotcrete beam in U/S rings 4-9 at West sidewall and rings 13-22 West sidewall at D/S
(Type : SHOTCRETE BEAM)				
Special Feature				
(Type :)				
Roof		5	5	Localized roof bulges in rings 7-8
Measured Rise (mm)	2883			
Measured At Ring No.	6			
Sag (mm)	167			
Percent Sag	5			
Sidewall		5	5	Shotcrete lines west walls of both ends and extends 10m from primary barrel and is 2.5m high. Some corrosion on floor d/s end Slight cusping of East sidewall in rings 6-7
Measured Span (mm)	5134			
Measured At Ring No.	3			
Deflection (mm)	104			
Percent Deflection	3			
Floor		5	5	West floor seam heaving at rings 17-20- approx 70mm
Bulge (mm)	70			
Measured At Ring No.	18			
Abrasion (Y/N)	Yes			
Circumferential Seams		5	5	
Separation (mm)	0			
Longitudinal Seams		5	5	Seam cusping in Ring 6-7 1N stagger
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Minor corrosion
Corrosion By Soil (Y/N)	No			
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: U/S, Span (mm): , Rise (mm): 3050, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3050, Rise (mm): 2290, Type: AP)				
Barrel Last Accessible Date	29-Nov-2011			Concrete arch
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Narrow to medium longitudinal cracks 2 diagonal cracks extending through roof and sidewalls near D/S end
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		6	6	Narrow vertical cracks
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		6	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	Some joints spalled minor Poor construction joints @ both ends
Separation (mm)	20			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3050, Rise (mm): 2290, Type: AP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		SPCSP extension. South (Just u/s of bevel, sound is hollow indicating absence of backfill for approximately 5 m u/s of bevel connection) no change) 2004/08/07
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		4	4	Bevel pushed in 500 mm at sides
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		5	5	Scour hole 6x7mx5m-rock lined
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Sharp bend just d/s
Bank Stability		5	5	Some bank erosion at SW. 8m longx1mx1m
HWM (m below Top of Culvert)	2.0			No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			D/S
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	54.7/55.7	Est. Repl. Yr	2030	Maint. Req. (Y/N)	No
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	29-Aug-2013		Previous Inspection Date	18-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							