

Bridge Culvert Inspection				
Bridge File Number	75617 -1 Bridge Culvert		Form Type	CULM
Year Built	1963		Lot No.	1
Bridge or Town Name	LEDUC		Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO WHITEMUD CREEK, 6.95.5, WATERCRS-ST		Inspector Class	BR CLS B
Located On	2:30 R1 29.544;2:30 L1 29.555		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	19-Apr-2013
Legal Land Location	NW SEC 10 TWP 49 RGE 25 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:34:60, 53:13:01		Data Entry Date	30-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11		Review Date	29-Apr-2013
Clear Roadway/Skew	22.2 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	27,420 / 2012 (A)		Dept. Review Date	01-May-2013
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1829	1118	FP	83.5	68X13	2.8	ARCH
2	MAIN	1829	1118	FP	83.5	68X13	2.8	ARCH
Special Features								
Special Features Comment	BF tag on SW pipe.							

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	9	7	Approx 1 km South of weight scale.
Vertical Alignment	9	9	Maintenance turnaround in median to South.
Roadway Width (m)	22.200		NBL 11.0, SBL 11.2.
Embankment	8	7	
Sideslope (__:1)	4.0		
(Height of Cover(m) : 3)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	9	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	E		North pipe.
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
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		5	5	Pitting/scaling rust.-July, 2011
Heaving (mm)	100			Lower 1/2 not viewed.
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Grassed in.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
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: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP)				
Barrel Last Accessible Date	12-Aug-2009			North pipe. Water to high to access
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	At NBL.
Measured Rise (mm)	1040			
Measured At Ring No.				
Sag (mm)	78			
Percent Sag	7			
Sidewall		N	N	At c/l NBL.
Measured Span (mm)	1890			
Measured At Ring No.				
Deflection (mm)	61			
Percent Deflection	3			
Floor		N	N	
Bulge (mm)	50			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	50			
Longitudinal Seams		N	N	
Total No. of Cracked Rings				Riveted.
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)	No			
Coating		N	4	Pitting & scaling rust. Floor & lower sidewall.-12-Aug-2009
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP)				
Camber POS/ZERO/NEG	ZERO			Due to culvert on private land d/s.
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	N	GR 5 - 12-Aug-2009
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		North pipe.
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	Lower 1/2 not viewed
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		6	6	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		South pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		5	5	Scaling/pitting rust.-July, 2011
Heaving (mm)	100			Lower 1/2 not viewed.
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Grassed in.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
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 # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP)				
Barrel Last Accessible Date	12-Aug-2009			South pipe. Could not access due to high water.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	At c/l NBL.
Measured Rise (mm)	1060			
Measured At Ring No.				5.2%
Sag (mm)	58			
Percent Sag	5			
Sidewall		N	N	At c/l NBL.
Measured Span (mm)	1866			
Measured At Ring No.				
Deflection (mm)	37			
Percent Deflection	2			
Floor		N	N	
Bulge (mm)	50			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	50			
Longitudinal Seams		N	N	Riveted. Rust coated seams.-12-aUG-2009
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)				
Coating		N	4	Pitting & scaling rust. Floor & lower sidewall.-12-Aug-2009
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	5	GR 5, 12-AUg-2009
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		South pipe.
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	Lower 1/2 not viewed
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		6	6	Grassed in.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
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		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.4			Channel clogged with willows & bullrushes.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable
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	2014	Dewater for full inspection.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	53.6/53.4	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor corrosion.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	19-Jan-2015		Previous Inspection Date	14-Jul-2011			
Inspection Cycle (Default) (months)	21						
Comment							