

Bridge Culvert Inspection			
Bridge File Number	77694 -1 Bridge Culvert	Form Type	CULM
Year Built	1953	Lot No.	4
Bridge or Town Name	HOLDEN	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.44, WATERCRS-ST	Inspector Class	BR CLS A
Located On	14:10 C1 7.272	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Jan-2012
Legal Land Location	NW SEC 4 TWP 49 RGE 15 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-112:08:51, 53:12:13	Data Entry Date	31-Jan-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Jason Saly
Contract Main. Area	CMA16	Review Date	30-Jan-2012
Clear Roadway/Skew	13.4 / 0 deg.	Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,800 / 2010 (A)	Dept. Review Date	02-Feb-2012
Road Classification	RAU-213.4-120	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3352	1676	BP	23.8			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	Plowed in North & South ditch.	Gas		
Power	3 line South r/w.	Municipal		
Others	Railway 40m North.	Problem (Y/N)	No	
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection with local N-S road 40 m West.
Vertical Alignment		8	8	
Roadway Width (m)	13.400			
Embankment		6	6	3:1 then steepens to 2:1 at ends of pipe.
Sideslope (__:1)	2.0			
(Height of Cover(m) : 2.2)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		X	X	
Wingwalls		6	6	
(Shape : FLARE)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		6	6	Well grassed in.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
Upstream End General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	10-Jan-2012			W barrel.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Silt & ice on floor, rise could not be measured.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	6	Medium vertical cracks (0.8mm) randomly through barrel. Span at S end=1686=10mm=0.6%. Span at N end=1686=10mm=0.6%.
Measured Span (mm)	1686			
Measured At Ring No.				
Deflection (mm)	10			
Percent Deflection	1			
Floor		N	N	Ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		5	5	Steel plates bolted together to close gaps at sidewalls/roof. Void filled with expanded foam.
Separation (mm)				
Longitudinal Seams		X	X	
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)		No		
Siltting (Y/N)		Yes		
Drift (Y/N)		No		
Barrel General Rating		6	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date		10-Jan-2012		E barrel.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Silt & ice on floor, could not measure rise.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)		0		
Percent Sag				
Sidewall		6	6	Random medium vertical cracks in walls. Span at S end=1677=1mm. Span at N end=1672=4mm=0.2%.
Measured Span (mm)		1772		
Measured At Ring No.				
Deflection (mm)		4		
Percent Deflection		0		
Floor		N	N	Covered with ice. Horz. crack E sidewall at S end.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		5	5	
Separation (mm)				
Longitudinal Seams		X	X	
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 2)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Horiz. ck in headwall.
Collar		X	X	
Wingwalls		6	6	
(Shape : FLARE)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	Well grassed in.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	2 - 1000 mm CSP's under CNR tracks.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not 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		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) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	67.5/67.6	Est. Repl. Yr	2025	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	Jason Saly		Previous Assistant's Name				
Next Inspection Date	10-Oct-2013		Previous Inspection Date	23-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							