

Bridge Culvert Inspection				
Bridge File Number	70839 -1 Bridge Culvert		Form Type	CUL1
Year Built	1962		Lot No.	1
Bridge or Town Name	CHIPMAN		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO BEAVERHILL CREEK, 6.62.7, WATERCRS-ST		Inspector Class	BR CLS A
Located On	15:08 C1 17.180		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	09-Jan-2012
Legal Land Location	SW SEC 1 TWP 55 RGE 19 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:41:30, 53:43:16		Data Entry Date	14-Feb-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Jason Saly
Contract Main. Area	CMA14		Review Date	28-Jan-2012
Clear Roadway/Skew	9 / -30 deg. (LHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,610 / 2010 (A)		Dept. Review Date	21-Mar-2012
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	5			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	30.5	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment		5% V.E.						

Utilities (Located at)				
Utility Attachments				
Telephone	Plowed in South ditch.		Gas	20m North parallel to Hwy 15.
Power			Municipal	
Others	CNR rail line 30m North of c/l.		Problem (Y/N)	No
Remarks				

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 1.1)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		8	8	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
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	One side buckled from accident damage. Three corrugations torn - photo. Corrosion similar to barrel.
Heaving (mm)	75			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	6	Well grassed.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
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): 2019, Rise (mm): 2226, Type: SPE)				
Barrel Last Accessible Date	09-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	Unable to measure due to ice. Est.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag	3			
Sidewall		N	4	Lower sidewalls indicate heavy corrosion on lower sections of the pipe, loss of section.
Measured Span (mm)	2040			
Measured At Ring No.	5			
Deflection (mm)	21			
Percent Deflection	1			
Floor		N	N	Under ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	4	Some circumferential seam bolts are corroding.
Separation (mm)	0			
Longitudinal Seams		N	5	All lapped improperly. R4 W side bolts corroding @ 10:00 o'clock. 1N
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	4	No galvanizing remains at water to air interface. A few spots perforated due to corrosion.
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): 2019, Rise (mm): 2226, Type: SPE)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		4	4	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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	Corrosion/scaling lower 1/2 similar to barrel corrosion.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		6	6	Well grassed in.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		6	6	
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	Channel does not line up with the culvert on either end.
Bank Stability		6	6	
HWM (m below Top of Culvert)	0.7			
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		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	2012	(Concrete floor. 05/June/2007)					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	50.1/53.1	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	Consider installing concrete floor in next 3yrs. If installed it will extend life of culvert to 10-15yrs. It appears soil is corrosive in the area. Consider dewatering for a full inspection; pipe nearing end of service life.		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	09-Oct-2013		Previous Inspection Date	02-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							