

Bridge Culvert Inspection				
Bridge File Number	70747 -1 Bridge Culvert		Form Type	CUL1
Year Built	1981		Lot No.	3
Bridge or Town Name	DRUMHELLER		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO RED DEER RIVER, 3.34, WATERCRS-ST		Inspector Class	BR CLS A
Located On	10:08 C1 3.981		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	01-Nov-2011
Legal Land Location	SE SEC 31 TWP 28 RGE 19 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:39:34, 51:25:59		Data Entry Date	28-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA21		Review Date	13-Nov-2011
Clear Roadway/Skew	11.1 / 26 deg. (RHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,720 / 2010 (A)		Dept. Review Date	28-Nov-2011
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	16			

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	38.4	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments								
Telephone	North ditch.			Gas	East and also South of bridge.			
Power	3 wires North of railway.			Municipal				
Others				Problem (Y/N)	No			
Remarks								

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve to East.
Vertical Alignment		9	9	
Roadway Width (m)	11.100			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

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		6	6	Floor superficial corrosion.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		4	4	Minor erosion starting at sides of bevel.
(Type : CONCRETE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	
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	01-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Estimated 4.5% sag.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	100			
Percent Sag				
Sidewall		8	8	
Measured Span (mm)	2000			
Measured At Ring No.	4			
Deflection (mm)	19			
Percent Deflection	1			
Floor		N	N	Silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
Separation (mm)				
Longitudinal Seams		N	6	
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)	No			
Coating		4	4	Superficial @ top of roof @ U/S. Alkali corrosion at barrel ends top seams.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
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		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	6	
Icing (Y/N)	No			Silt 1m deep at outlet.
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		N	6	
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		5	5	Minor dent in West side.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection		4	4	Bank has sluffed at west side.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	
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	Flows into railway culvert 6m D/S. U/S not good alignment for entry into pipe.
Bank Stability		4	4	Bank has sluffed at West side.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	Approx 15m3 D/S, 5m3 U/S Class 1.					
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) (%)	55.6/66.7	Sufficiency Rating (Last/Now) (%)	54.5/56.6	Est. Repl. Yr	2023	Maint. Req. (Y/N)	Yes
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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	01-Aug-2013		Previous Inspection Date	09-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							