

Bridge Culvert Inspection			
Bridge File Number	77194 -1 Bridge Culvert	Form Type	CUL1
Year Built	1970	Lot No.	4
Bridge or Town Name	ENTRANCE	Inspector Name	Shane Hall
Located Over	PINTO CREEK, 8.11.118.3.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	40:30 C1 57.017	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	18-Oct-2012
Legal Land Location	SE SEC 11 TWP 54 RGE 2 W6M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-118:10:51, 53:38:35	Data Entry Date	06-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13	Review Date	19-Nov-2012
Clear Roadway/Skew	8.1 / -30 deg. (LHF)	Dept. Reviewer Name	Paul Catt
AADT/Year	2,040 / 2011 (A)	Dept. Review Date	18-Jan-2013
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	420		

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	64.6	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w & East r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	File tag installed on West end roof.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curve at top of north hill. Crest curve limiting sight distance to the north. No passing.
Vertical Alignment		6	6	
Roadway Width (m)	8.100			
Embankment		N	5	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 6.4)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		H-pile retaining wall-no bevel. Fill spalling under retaining wall. This has been happening since retaining wall installed-poor design.
End Treatment (Concrete, Steel, Others, None)	NONE			
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		X	X	
Heaving (mm)	400			
Invert Above/Below Stream Bed	BELOW			First 2 barrel sections heaved approx. 400mm.
Above/Below (mm)	300			
Scour Protection		N	4	Additional rock recently place, filter fabric exposed.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	5	
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	18-Oct-2012			Not safe to access from u/s end. Accessed from d/s end only.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Rock/gravel on floor, not measured.
Measured Rise (mm)	2127			
Measured At Ring No.	9			
Sag (mm)	99			
Percent Sag	4			
Sidewall		6	6	
Measured Span (mm)	2108			
Measured At Ring No.	8			
Deflection (mm)	89			
Percent Deflection	4			
Floor		N	N	Abrasion from gravel. (Water is piping along first 4 sections. 28/June/2007) 90% of floor covered by large rock/gravel/silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		7	7	
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		N	5	Bottom 1/4 of culvert has superficial rust. Soil side corrosion coming through majority of bolt holes.
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		4	4	1.5 m drop off end of pipe.
Baffle (Type :)		X	X	
Waterway Adequacy		5	4	(Iced to within 1.2m of crown.-24-Nov-2010)
Icing (Y/N)	Yes			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		N	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
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	
Heaving (mm)	200			
Invert Above/Below Stream Bed		ABOVE		
Above/Below (mm)	1500			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		N	5	Drop off filled with rock.
Scour/Erosion		N	5	
Beavers (Y/N)		No		
Downstream End General Rating		4	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	4	D/S poor alignment, sharp bend.
Bank Stability		4	4	Sliding D/S from the pipe, due to poor alignment and high outlet velocities.
HWM (m below Top of Culvert)				HWM not visible. Drift on embankment.
Drift (Y/N)		Yes		
Channel Bottom Degradation/Aggrading		DEGRADING		D/S
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							
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) (%)	41.7/44.8	Est. Repl. Yr	2023	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor d/s erosion and u/s retaining wall.		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	18-Jul-2014		Previous Inspection Date	24-Nov-2010			
Inspection Cycle (Default) (months)	21						
Comment							