

Bridge Culvert Inspection			
Bridge File Number	78094 -1 Bridge Culvert	Form Type	CUL1
Year Built	1975	Lot No.	1
Bridge or Town Name	ANDREW	Inspector Name	Jason Saly
Located Over	2ND ORDER TRIBUTARY TO VERMILION RIVER, 6.5.32.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	855:16 C1 18.920	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Jun-2010
Legal Land Location	SW SEC 21 TWP 55 RGE 16 W4M	Data Entry By	Jill Potts
Longitude, Latitude	-112:19:55, 53:45:33	Data Entry Date	02-Jul-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA14	Review Date	24-Jun-2010
Clear Roadway/Skew	8.5 / 10 deg. (RHF)	Dept. Reviewer Name	Chris Black
AADT/Year	1,790 / 2009 (A)	Dept. Review Date	13-Jul-2010
Road Classification	RCU-209-110	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	-	1524	MP	34.1	68X13	3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Approach at SE & SW. Long gradual crest curve to South, limited sight distance.
Vertical Alignment		5	5	
Roadway Width (m)	8.500			
Embankment		N	6	East embankment measured.
Sideslope (__:1)	4.0			
(Height of Cover(m) :)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		N	4	Heavy corrosion & loss of section, typical throughout bottom 1/2 of barrel.
Heaving (mm)	180			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	3	Insufficient.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	3	Scour beside bevel.
Beavers (Y/N)	Yes			
Upstream End General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Barrel Last Accessible Date	07-Nov-2003			Water 0.9m deep in pipe, viewed from ends.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(Slight flattening of roof at D/S end. Est 8.5% sag. 07/11/2003)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	130			
Percent Sag				
Sidewall		N	N	(1570 at c/l. 07/11/2003) (3% deflection, heavy corrosion & loss of section lower 1/2 of pipe - photo. 07/11/2003)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	46			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	(Rated what was visible above ice. 07/11/2003)
Separation (mm)	70			
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		N	N	(Heavy corrosion with loss of section, perforations soon to follow. 07/11/03)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	6	(Small scour hole @ East end. 07/11/2003)
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	G.R. carried forward since 07/Nov/2003.
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		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	4	Some corrosion.
Heaving (mm)	180			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	3	(Insufficient. Scour beside bevel but vegetated. 07/11/2003)
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	3	(5.0 x 7.0 scour hole - photo. 07/11/2003)
Beavers (Y/N)	Yes			
Downstream End General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		N	7	
HWM (m below Top of Culvert)				HWM not visible. West of pipe.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			
(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	2010	Dewater and inspect. Determine most cost effective manner of managing pipe (Repairs, replacement.)					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	54.2/44.8	Est. Repl. Yr	2012	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(Heavy corrosion and loss of section, only a matter of time for perforations to follow. Steel losing strength. 07/11/2003) Pipe has not been fully inspected in 7 years.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	With Floor, Culvert should be adequate until 2025. CB						
On 3-Year Program (Y/N)	Y						
Proposed Action	Isntall 50mm concrete with wire mesh across bottom half of culvert within two years.						
Previous Inspector's Name	Tim Davies		Previous Assistant's Name				
Next Inspection Date	02-Sep-2013		Previous Inspection Date	22-Mar-2007			
Inspection Cycle (Default) (months)	39						
Comment							