

Bridge Culvert Inspection			
Bridge File Number	72284 -1 Bridge Culvert	Form Type	CUL1
Year Built	1998	Lot No.	2
Bridge or Town Name	IRON RIVER	Inspector Name	Wade Nanninga
Located Over	MANATOKAN CREEK, 7.10, WATERCRS-ST	Inspector Class	BR CLS A
Located On	55:16 C1 24.944	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Apr-2012
Legal Land Location	SE SEC 14 TWP 63 RGE 7 W4M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-110:56:39, 54:26:33	Data Entry Date	24-Apr-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	17-Apr-2012
Clear Roadway/Skew	12.3 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,590 / 2011 (A)	Dept. Review Date	04-May-2012
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	40		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	7054	3013	SCA	13.716	380X140	6.2,3.4,4.2	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Plowed along South ditch & in South curb.	Gas	
Power	3 wires OH, 17.0m North; 3 wires OH crossing 45m West.	Municipal	
Others	Bronze BF tag casted in @ SW & NE wings.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intergration 100m W
Vertical Alignment		9	9	
Roadway Width (m)	8.500			
Embankment		4	4	Water hitting embankment @ NE -has been rebuilt but no riprap present - photo
Sideslope (__:1)	3.0			
(Height of Cover(m) : 0.4)				
Guardrail (Y/N)	Yes			Guardrail is wider @ bridge. 23m @ SW corner due to road allowance. 46m @ all other corners. Radius length should be longer - photo.
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		9	9	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls (Shape :)		8	8	
Cutoff Wall		N	N	Culvert wall and concrete footing act as cutoff walls along length of culvert.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		8	8	
Scour/Erosion		8	8	No evident problems.
Beavers (Y/N)	Yes			bEAVER DAM 15M U/S.
Upstream End General Rating		8	8	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 7054, Rise (mm): 3013, Type: SCA)				
Barrel Last Accessible Date	16-Nov-2006			Not accessible due to deep water. Viewed from ends.
Special Features				
Special Feature (Type :)				Concrete curb both sides. Rated "8".
Special Feature (Type :)				Bridge tube AND RAIL attached to approach guardrail, all corners. Rated "8".
Roof		9	N	Estimate.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	100			
Percent Sag				
Sidewall		9	N	(Not sure if where measured is the widest point due to high ice. Near c/l. 16/Nov/2006)
Measured Span (mm)	6940			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	Water 1.6m clear to crown. (Rock riprap floor intended to control scour and protect concrete spread footing.-12-Aug-2008)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		7	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 7054, Rise (mm): 3013, Type: SCA)				
Coating		6	N	(Rust stains coming from between plates. 2002/12/09)
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG				
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		N	N	Previous rating "9".
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		Water to crown 1.6m
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	
Collar		9	9	
Wingwalls		8	8	
(Shape :)				
Cutoff Wall		N	N	Sidewall and concrete footing act as cutoff wall along length of barrel.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		8	8	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		9	4	Meandering channel affecting NE embankment
Bank Stability		7	7	
HWM (m below Top of Culvert)				
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	NONE			
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	2012	At NE embankment approx 10m3					
REMOVE DRIFT ACCUMULATION	2012	Beaverdam u/s					
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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	72.3/72.3	Est. Repl. Yr	2052	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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	09-Jan-2014		Previous Inspection Date	14-Jul-2010			
Inspection Cycle (Default) (months)	21						
Comment							