Bridge Culvert Inspection

Bridge File Number	72236 -2 Bridge Culvert	Form Type	CULE
Year Built	2011	Lot No.	4
Bridge or Town Name	MARLBORO	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO MCLEOD RIVER, 8.11.107.34, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	16:04 L1 32.829;16:04 R1 33.763	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 1 TWP 53 RGE 20 W5M	Data Entry Date	04-Sep-2012
Longitude, Latitude	-116:48:14, 53:32:39	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	24-Aug-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew		Dept. Review Date	18-Sep-2012
AADT/Year	6,080 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	U/S	-	2000	MP	10	125X26	2.8	ROUND
1	MAIN	-	1829	SSP	72.2		12.7	ROUND
1	D/S	-	2000	MP	10	125X26	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	N & S r/w	Gas	Crosses hwy 100m East
Power	North r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment			7	
Vertical Alignment			8	
Roadway Width (m)	25.000			
Embankment			8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating			**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall			X	
Bevel End			9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection			9	Rock drain on NW ditch.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion			9	
Beavers (Y/N)	No			
Upstream End General Rating			**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP**)				
Barrel Last Accessible Date	18-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			9	
Measured Rise (mm)	1996			
Measured At Ring No.	1			
Sag (mm)				
Percent Sag				
Sidewall			9	
Measured Span (mm)	1978			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor			9	
Bulge (mm)				
Measured At Ring No.	1			
Abrasion (Y/N)	No			
Circumferential Seams			X	
Separation (mm)				
Longitudinal Seams			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			9	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2000, Type: MP**)				
Ponding (Y/N)	Yes			Due to d/s structure under railway.
Fish Passage Adequacy			9	
Baffle			X	
(Type :)				
Waterway Adequacy			9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating			**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Barrel Last Accessible Date	18-Nov-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			9	
Measured Rise (mm)	1809			@ CL
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall			9	
Measured Span (mm)	1809			@ CL
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor			9	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams			9	Welded seams
Separation (mm)				
Longitudinal Seams			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			X	Steel pipe, no coating
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SSP**)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy			9	
Baffle			X	
(Type :)				
Waterway Adequacy			9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**9**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection			9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion			9	
Beavers (Y/N)	No			
Downstream End General Rating			**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment			7	Slight bend at inlet & outlet.
Bank Stability			9	
HWM (m below Top of Culvert)	0.4			April/2012
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				Rock clusters in u/s channel Willows along u/s channel.
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating			**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**/100.0**	**Sufficiency Rating (Last/Now) (%)**	**/98.5**	Est. Repl. Yr	2070	Maint. Reqd. (Y/N)	No

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		Previous Assistant's Name			
Next Inspection Date	09-May-2014	Previous Inspection Date			
Inspection Cycle (Default) (months)	21				
Comment					