Bridge Culvert Inspection

Bridge File Number	06849 -1 Bridge Culvert	Form Type	CUL1
Year Built	1988	Lot No.	4
Bridge or Town Name	WESTEROSE	Inspector Name	Owen Salava
Located Over	MUSKEG CREEK, 5.63, WATERCRS-ST	Inspector Class	BR CLS A
Located On	771:04 C1 2.978	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	05-Feb-2013
Legal Land Location	NW SEC 10 TWP 45 RGE 1 W5M	Data Entry By	Marcia Chavez
Longitude, Latitude	-114:04:28, 52:52:13	Data Entry Date	22-Feb-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA17	Review Date	13-Feb-2013
Clear Roadway/Skew	9.6 /	Dept. Reviewer Name	Chris Black
AADT/Year	550 / 2011 (A)	Dept. Review Date	14-Mar-2013
Road Classification	RCU-210-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5279	3637	RPE	31.1	152X51	4.0,4.0,4.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 150m North. Hill to North.
Vertical Alignment		7	7	
Roadway Width (m)	9.600			Wide transverse crack over South edge of pipe.
Embankment		8	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Small crack @ joint to collar.
Collar		7	N	Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Iced over.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed				Ice covered.
Above/Below (mm)				
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 5279, Rise (mm): 3637, Type: RPE**)				
Barrel Last Accessible Date	05-Feb-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	1850 to ice at inlet.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	Unable to measure; ice above mid-height.
Measured Span (mm)	5340			
Measured At Ring No.	4			
Deflection (mm)	61			(1.2%. 12Feb2010).
Percent Deflection	1			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
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)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	
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): 5279, Rise (mm): 3637, Type: RPE**)				
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		6	N	(Minor narrow cracks. 12Feb2010) - Snow covered.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	Iced over.
Bevel End		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed				Can't determine due to high water/ice.
Above/Below (mm)				
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**N**	GR was 6 from 12Feb2010 based on collar.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**75.7/74.7**	Est. Repl. Yr	2038	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	Owen Salava	Previous Assistant's Name			
Next Inspection Date	05-May-2016	Previous Inspection Date	12-Feb-2010		
Inspection Cycle (Default) (months)	39				
Comment					