Bridge Culvert Inspection

Bridge File Number	71811 -1 Bridge Culvert	Form Type	CUL1
Year Built	1993	Lot No.	2
Bridge or Town Name	DRIFTPILE	Inspector Name	Russel Vanderschaaf
Located Over	TRIBUTARY TO LESSER SLAVE RIVER, 8.11.80.47, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	2:50 C1 21.866	Assistant Class	
Water Body Cl./Year		Inspection Date	12-Feb-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 22 TWP 73 RGE 12 W5M	Data Entry Date	13-Apr-2013
Longitude, Latitude	-115:45:18, 55:20:07	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	07-Apr-2013
Contract Main. Area	CMA06	Dept. Reviewer Name	
Clear Roadway/Skew	10.4 /	Dept. Review Date	
AADT/Year	1,800 / 2012 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	50		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5466	3603	RPB	17.1	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Buried line along N and S ditch.	Gas	
Power	6 wires o/h along North row.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field entrances NE & SE corners.
Vertical Alignment		8	8	
Roadway Width (m)	10.400			
Embankment		4	N	Erosion 0.6m wide x 1.5m long behind SE wingwall corner.-30-Mar-2011 Snow covered
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			SE guardrail, 2 posts pushed back with 2 sections of guardrail dented. Bridgerail missing 5 bolts.-30-Mar-2011 Snow covered. Not FLEAT
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	Minor spall with exposed rebar at 1 o'clock wide cracks at West and East top area.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		6	6	T.T. sheeting with steel piles.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		N	N	Under snow and ice.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Under snow and ice.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 5466, Rise (mm): 3603, Type: RPB**)				
Barrel Last Accessible Date				
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Salt stains on roof. Rise not measured due to ice on floor. Shape looks good.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		7	7	Inward deflection.
Measured Span (mm)	5425			
Measured At Ring No.	3			
Deflection (mm)	41			
Percent Deflection	1			
Floor		N	N	Under ice.
Bulge (mm)	0			
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	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 5466, Rise (mm): 3603, Type: RPB**)				
Coating		5	4	Superficial rust above ice line.
Corrosion By Soil (Y/N)	Yes			Alkaline deposits through roof bolts.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
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		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		7	7	T.T. sheeting with steel piles.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1200			
Scour Protection		7	N	Snow covered
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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	2013	Repair guardrail carried over 30-Mar-2011				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**75.3/75.3**	Est. Repl. Yr	2042	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor erosion behind SW wingwall corner.	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina		
Next Inspection Date	12-Nov-2014	Previous Inspection Date	30-Mar-2011		
Inspection Cycle (Default) (months)	21				
Comment					