Bridge Culvert Inspection

Bridge File Number	70274 W-2 Bridge Culvert	Form Type	CUL1
Year Built	2000	Lot No.	2
Bridge or Town Name	GRANDE PRAIR	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO BEAR RIVER, 8.10.58.18.2.2.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	43:04 L1 10.356	Assistant Class	
Water Body Cl./Year		Inspection Date	29-Nov-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 13 TWP 72 RGE 5 W6M	Data Entry Date	17-Dec-2012
Longitude, Latitude	-118:37:57, 55:13:45	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	17-Dec-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	15.3 / -15 deg. (LHF)	Dept. Review Date	03-Jan-2013
AADT/Year	5,880 / 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	MAIN	-	1800	MP	34	125X26	3.5,3.5,3.5	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	Crosses Hwy 400 m east.
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Rest stop turn-in at pipe.
Vertical Alignment		8	8	
Roadway Width (m)	13.000			
Embankment		N	N	Erosion in NE ditch 50X3X0.5m - 05-May-2009
Sideslope (__:1)	2.0			Snow covered.
(Height of Cover(m) : **1.6**)				
Guardrail (Y/N)	Yes			Turn down end and 3 posts broken on NE site. -05-May-2009 Snow covered.
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	NONE			
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	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	29-Nov-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	8	
Measured Rise (mm)				estimated due to ice.
Measured At Ring No.				
Sag (mm)	45			
Percent Sag	3			
Sidewall		N	8	
Measured Span (mm)	1845			
Measured At Ring No.				
Deflection (mm)	45			
Percent Deflection	3			
Floor		N	N	
Bulge (mm)				ice covered
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	60			
Longitudinal Seams		N	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	7	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			300 mm

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			W.About 500mm at d/s end.-08-Mar-2011
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**N**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	8	.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		N	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable
Beavers (Y/N)	No			
(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	2013	Replace guardrail posts, carried over 05-May-2009				
OTHER ACTION	2013	Repair ditch erosion, carried over-05-May-2009				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/88.9**	**Sufficiency Rating (Last/Now) (%)**	**67.5/82.7**	Est. Repl. Yr	2049	Maint. Reqd. (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	Russel Vanderschaaf	Previous Assistant's Name	
Next Inspection Date	29-Aug-2014	Previous Inspection Date	08-Mar-2011
Inspection Cycle (Default) (months)	21		
Comment			