Bridge Culvert Inspection

Bridge File Number	79474 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	4
Bridge or Town Name	GRANDE PRAIRIE	Inspector Name	Russel Vanderschaaf
Located Over	BIG MOUNTAIN CREEK, 8.10.58.18.3, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	40:42 C1 0.007	Assistant Class	
Water Body Cl./Year		Inspection Date	21-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 4 TWP 68 RGE 5 W6M	Data Entry Date	24-Sep-2012
Longitude, Latitude	-118:42:31, 54:51:36	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	24-Sep-2012
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	11.8 /	Dept. Review Date	07-Jan-2013
AADT/Year	2,640 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	300		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	9800	6000	AP	67.2			ARCH
Special Features		DRIFT CATCHER						
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	Curve 200mm south.
Vertical Alignment		7	7	Sag curve. 4:1 at bottom.
Roadway Width (m)	11.800			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3**)				
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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		7	7	Sheet piling behind gaps.
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	7	
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): 9800, Rise (mm): 6000, Type: AP**)				
Barrel Last Accessible Date	24-Feb-2012			Water 1.0m deep - shape looked good from ends.
Special Features				
Special Feature				Drift deflectors
(Type : **DRIFT CATCHER**)				
Special Feature				
(Type :)				
Roof		6	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	N	Medium map cracking near d/s end, both sides.
Measured Span (mm)	7893			
Measured At Ring No.	3			
Deflection (mm)	0			Estimated
Percent Deflection				
Floor		6	N	Floor looked good when pipe dewatered.-24-Feb-2012
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		5	N	(50mm STYROFOAM IN BETWEEN CIRCUMFERENTIAL SEAMS, 1ST SEAM IS ONLY ONE WITH POSSIBLE CONCERN WITH A 70mm GAP AT BOTTOM & 10mm GAP ON TOP BETWEEN CONCRETE & STYROFOAM. -24-Feb-2012
Separation (mm)	80			
Longitudinal Seams		X	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)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 9800, Rise (mm): 6000, Type: AP**)				
Coating		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	GR was '6' on 24-Feb-2012

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		7	7	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		5	5	STREAMFLOW APPEARS TO BE ATTACKING NW CORNER OF STRUCTURE -VERICAL CUTBANKS U/S & D/S.
HWM (m below Top of Culvert)				No HWM visible. DRIFT U/S BANKS, drift caught on drift catchers.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			

Structure Usage			
	Last	Now	Explanation of Condition
(Fish Compensation Measure 1 : **NONE**)			
(Fish Compensation Measure 2 : **NONE**)			
Channel General Rating	**5**	**5**	

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) (%)	**66.7/55.6**	**Sufficiency Rating (Last/Now) (%)**	**67.0/61.4**	Est. Repl. Yr	2039	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	Russel Vanderschaaf	Previous Assistant's Name	
Next Inspection Date	21-May-2014	Previous Inspection Date	24-Feb-2012
Inspection Cycle (Default) (months)	21		
Comment			