Bridge Culvert Inspection

Bridge File Number	77270 -2 Bridge Culvert	Form Type	CULE
Year Built	2010	Lot No.	2
Bridge or Town Name	PEACE RIVER	Inspector Name	Brian Pientsch
Located Over	TRIBUTARY TO WHITEMUD RIVER, 8.10.48.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Clem Guenette
Located On	743:02 C1 42.491	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	22-Mar-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 36 TWP 87 RGE 21 W5M	Data Entry Date	09-Apr-2013
Longitude, Latitude	-117:12:26, 56:35:42	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	03-Apr-2013
Contract Main. Area	CMA04	Dept. Reviewer Name	
Clear Roadway/Skew	6.8 / -27 deg. (LHF)	Dept. Review Date	
AADT/Year	120 / 2012 (A)	Follow-Up By	
Road Classification	RCU-208G-90		
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	U/S	-	2120	SP	51.21	152X51	4.2	ROUND
1	MAIN	-	1727	SSP	114.144		15.9	ROUND
1	D/S	-	2120	SP	63.398	152X51	4.2	ROUND

Special Features	BARREL ELBOW
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		3	3	On hill of windy gravel road.
Vertical Alignment		3	3	
Roadway Width (m)	6.800			
Embankment		9	9	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **23**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**3**	**3**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	9	
Collar		9	N	Snow covered
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		9	N	
Bevel End		9	N	Snow covered
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	210			
Scour Protection		9	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		9	N	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**9**	GR carried fwd.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 2120, Type: SP**)				
Barrel Last Accessible Date	22-Mar-2013			U/S section
Special Features				
Special Feature		X	9	
(Type : **BARREL ELBOW**)				
Special Feature				
(Type :)				
Roof		9	9	
Measured Rise (mm)	2120			
Measured At Ring No.	7			
Sag (mm)	0			
Percent Sag	0			
Sidewall		9	9	Inward
Measured Span (mm)	2119			
Measured At Ring No.	7			
Deflection (mm)	1			
Percent Deflection				
Floor		9	9	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)				
Longitudinal Seams		9	9	2N
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		9	8	
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): 2120, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**9**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1727, Type: SSP**)				
Barrel Last Accessible Date	22-Mar-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		9	7	
Measured Rise (mm)	1675			at cl
Measured At Ring No.				
Sag (mm)	52			
Percent Sag	3			
Sidewall		9	8	
Measured Span (mm)	1704			at cl
Measured At Ring No.				
Deflection (mm)	23			
Percent Deflection	1			
Floor		9	9	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		X	3	Water leaking through in 2 spots at welded seam.
Separation (mm)				
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)				
Coating		9	7	
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: MAIN, Span (mm): , Rise (mm): 1727, Type: SSP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**9**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	7	Narrow crack @ top.
Collar		9	7	Narrow cracks @ 300mm.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		9	N	
Bevel End		9	8	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not 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		**8**	**8**	

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	2013	Weld circ. sean where water leaking through.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**100.0/77.8**	**Sufficiency Rating (Last/Now) (%)**	**86.1/74.2**	Est. Repl. Yr	2055	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	Brian Pientsch	Previous Assistant's Name	Lisbeth Medina		
Next Inspection Date	22-Jun-2016	Previous Inspection Date	26-Aug-2010		
Inspection Cycle (Default) (months)	39				
Comment					