Bridge Culvert Inspection

Bridge File Number	81810 -1 Bridge Culvert	Form Type	CUL1
Year Built	2000	Lot No.	4
Bridge or Town Name	CYNTHIA	Inspector Name	Wade Nanninga
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS B
Located On	753:04 C1 9.886	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Jan-2011
Legal Land Location	SW SEC 4 TWP 51 RGE 10 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:25:36, 53:22:01	Data Entry Date	15-Feb-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA12	Review Date	14-Feb-2011
Clear Roadway/Skew	11 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	620 / 2009 (A)	Dept. Review Date	22-Feb-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	60		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2430	SP	97.5	152X51	4.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	3 overhead lines 30m East.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed on W end..		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Business entrance North. Bridge site located @ bottom of sag curve. No passing NB.
Vertical Alignment		6	6	
Roadway Width (m)	11.000			
Embankment		N	N	(2m deep 5m wide, 20m long gully @ SW - photo. Previous repair failing of pipe - photo. 16/Sept/2004) Snow covered. (Windrows under guardrail. 16/Sept/2004) Snow covered.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **13.3**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
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		8	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Silt fence in disrepair. Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered. No sign of problem.
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): 2430, Type: SP**)				
Barrel Last Accessible Date	24-Jan-2011			0.5m ice along floor.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	7	(Rise 2420 at c/l, 0.4%. 16/Sept/2004) Ice on floor.
Measured Rise (mm)	2420			est
Measured At Ring No.				
Sag (mm)	40			
Percent Sag				
Sidewall		8	7	
Measured Span (mm)	2470			
Measured At Ring No.	7			
Deflection (mm)	40			
Percent Deflection	2			
Floor		N	N	Ice on floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				2n stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2430, Type: SP**)				
Fish Passage Adequacy		8	8	
Baffle		8	8	Rated what's visible.
(Type : **WEIR**)				
Waterway Adequacy		6	6	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	N	Silt fence in disrepair. Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	Snow covered, no sign of problem.
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	Vertical cut bank @ SW.
Bank Stability		4	4	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			(D/S only. 16/Sept/2004) Snow covered.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**4**	

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	2011	Repair gully at SW. If not done.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/77.8**	**Sufficiency Rating (Last/Now) (%)**	**77.2/69.4**	Est. Repl. Yr	2046	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor erosion problems that may occur. Watch for SW bank erosion worsening.	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	Dave Lam	Previous Assistant's Name			
Next Inspection Date	24-Apr-2014	Previous Inspection Date	16-Dec-2007		
Inspection Cycle (Default) (months)	39				
Comment					