Bridge Culvert Inspection

Bridge File Number	76327 -1 Bridge Culvert	Form Type	CUL1
Year Built	1992	Lot No.	4
Bridge or Town Name	BLUE RIDGE	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO ATHABASCA RIVER, 8.11.102, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	658:02 C1 16.087	Assistant Class	
Water Body Cl./Year		Inspection Date	20-May-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 23 TWP 60 RGE 10 W5M	Data Entry Date	29-Jun-2010
Longitude, Latitude	-115:23:56, 54:11:59	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	24-Jun-2010
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	9.6 / 15 deg. (RHF)	Dept. Review Date	29-Jun-2010
AADT/Year	430 / 2009 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2600	MP	102.4	125X26	3.5	ROUND

Special Features	DRIFT CATCHER, BARREL ELBOW
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	1 line west r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	On a curve. No passing SB.
Vertical Alignment		7	7	
Roadway Width (m)	9.600			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **9**)				
Guardrail (Y/N)	Yes			West side only.
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		N	5	(25mm transverse cracks in slope protection.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	200			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	4	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	4	Minor erosion beside concrete slope protection, minor NW ditch erosion.
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2600, Type: MP**)				
Barrel Last Accessible Date	20-May-2010			1/2 of barrel full with ice.
Special Features				
Special Feature		8	8	2600 dia CSP liner installed.
(Type : **DRIFT CATCHER**)				
Special Feature		7	7	
(Type : **BARREL ELBOW**)				
Roof		3	4	Sag estimated.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag	9			
Sidewall		3	4	Liner. At c/l.
Measured Span (mm)	2850			
Measured At Ring No.				
Deflection (mm)	250			
Percent Deflection	10			
Floor		N	N	Floor ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
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		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2600, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**4**	

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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		4	4	Loss of fill @ end of bevel. 4m long, 400mm wide x 500mm depth
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

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)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/44.4**	**Sufficiency Rating (Last/Now) (%)**	**56.0/50.1**	Est. Repl. Yr	2026	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor deflections.	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	20-Aug-2013	Previous Inspection Date	01-Mar-2007		
Inspection Cycle (Default) (months)	39				
Comment					