Bridge Culvert Inspection

Bridge File Number	74956 -1 Bridge Culvert	Form Type	CUL1
Year Built	1975	Lot No.	4
Bridge or Town Name	EASYFORD	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO PEMBINA RIVER, 8.11.84.58, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	621:02 C1 21.397	Assistant Class	
Water Body Cl./Year		Inspection Date	24-Jan-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SE SEC 4 TWP 50 RGE 8 W5M	Data Entry Date	16-Feb-2011
Longitude, Latitude	-115:05:58, 53:16:47	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	14-Feb-2011
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	8.9 /	Dept. Review Date	22-Feb-2011
AADT/Year	1,120 / 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	-	1500	MP	20.1	68X13	2.8	ROUND
Special Features		BEAVR CTRL DEV						
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 wires North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	No BF tag installed at U/S bevel.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to east.
Vertical Alignment		8	8	(The ditch at the SE is eroded down to match the creek streambed elevation. 16/Sept/2004) Snow covered.
Roadway Width (m)	8.900			
Embankment		N	N	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.2**)				
Guardrail (Y/N)	No			Inlet & outlet 5m from edge of pavement.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		Beaver stop has been installed.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			Iced over.
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	(Scoured along side of extension 300 wide, 1.5m deep, 1.0 long. 16/Sept/2004) Snow covered but embankment eroding around bevel due to beaver control backing up flow - photo.-16-Dec-2007
Beavers (Y/N)	Yes			
Upstream End General Rating		**4**	**4**	G.R. carried forward from 16/Sept/2004.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: MP**)				
Barrel Last Accessible Date	03-Oct-1994			Both ends covered by beaver protection, not accessible. Shape appears adequate. Viewed from D/S end.
Special Features				
Special Feature		6	6	
(Type : **BEAVR CTRL DEV**)				
Special Feature				
(Type :)				
Roof		5	5	(1560 x 1430, 4.7%. 94/10/03)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	70			
Percent Sag				
Sidewall		5	N	(4%. 94/10/03)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	60			
Percent Deflection				
Floor		N	N	Covered with ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	120			
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		4	N	Pitting rust lower 1/2.-16-Dec-2007
Corrosion By Soil (Y/N)				
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): 1500, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			0.5 m
Fish Passage Adequacy		4	4	Blocked by beaver stop at U/S end.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	(General rating carried over since 03/Oct/1994.)

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
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	ABOVE			
Above/Below (mm)	200			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	(Scour 400m wide, 300mm deep, 1m long on bevel sides & bevel undermined. 16/Sept/2004) Iced over but erosion evident due to beaver control - photo.-16-Dec-2007
Beavers (Y/N)	Yes			
Downstream End General Rating		**4**	**4**	G.R. carried forward from 16/Sept/2004.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**6**	**6**	

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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**41.9/42.0**	Est. Repl. Yr	2021	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	(Monitor ditch erosion, scour and erosion.16-Sep-2004)	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					