Bridge Culvert Inspection

Bridge File Number	80672 -1 Bridge Culvert	Form Type	CUL1
Year Built	1983	Lot No.	2
Bridge or Town Name	HIGH LEVEL	Inspector Name	Brian Pientsch
Located Over	2ND ORDER TRIBUTARY TO BUSHE RIVER, 8.10.23.6.2.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Lisbeth Medina
Located On	58:06 C1 56.138	Assistant Class	
Water Body Cl./Year		Inspection Date	25-May-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 11 TWP 110 RGE 21 W5M	Data Entry Date	28-Jun-2010
Longitude, Latitude	-117:23:16, 58:32:37	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	23-Jun-2010
Contract Main. Area	CMA01	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	8.1 /	Dept. Review Date	10-Sep-2010
AADT/Year	630 / 2009 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	999		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	30	125X26	2.8	ROUND
Special Features								
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		8	8	3 m of berm each side.
Vertical Alignment		8	8	
Roadway Width (m)	8.100			
Embankment		7	4	Vertical slump +.5m high located approx 5m from road shoulder.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		(Water to 300mm below crown-Aug 26, 2008)
End Treatment (Concrete, Steel, Others, None)	STEEL			U/S end fully submerged in snow - rot visible.
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	Beaver cage @ inlet.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	N	Only 5% visible.
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	N	(Bevel projects from fill about 1 m.-20011014)
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				Covered with snow.
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	(GEN. RATING CARRIED FORWARD)

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	13-Dec-1989			ICE TO CROWN 300MM FROM D/S END. Shape and condition appear to be adequate as viewed from d/s end.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	5	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
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		4	N	Pitting and scaling above water.-26-Aug-2008
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			Ponding 1.5m

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		N	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**N**	GR '5' 13-Dec-1989

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		Ice to crown 500 mm
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	N	Only 5% visible.
Heaving (mm)	50			
Invert Above/Below Stream Bed				End of barrrel under water.
Above/Below (mm)	0			
Scour Protection		N	N	(Bevel projecting about 1 m from fill, rock on fill. - 2001/10/14)
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	GEN. RATING CARRIED FORWARD

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	
Bank Stability		7	8	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Dams & lodge visible from road.
Beavers (Y/N)	Yes			Covered with snow.
(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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**65.3/58.4**	Est. Repl. Yr	2023	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	This culvert has been inacessible for 5 inspections, as per the BIM manual a level 2 inspection should be considered. The barrel looks adequate from the ends, and the pipe is only 27 years old.-the level 2 inspection is probably not necessay.	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	25-Feb-2012	Previous Inspection Date	18-Feb-2010		
Inspection Cycle (Default) (months)	21				
Comment					