Bridge Culvert Inspection

Bridge File Number	76333 -1 Bridge Culvert	Form Type	CUL1
Year Built	1967	Lot No.	4
Bridge or Town Name	GROVEDALE	Inspector Name	Russel Vanderschaaf
Located Over	2ND ORDER TRIBUTARY TO BIG MOUNTAIN CK, 8.10.58.18.3.1.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	666:02 C1 28.587	Assistant Class	
Water Body Cl./Year		Inspection Date	19-Aug-2010
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NW SEC 33 TWP 69 RGE 6 W6M	Data Entry Date	13-Oct-2010
Longitude, Latitude	-118:51:54, 55:01:29	Reviewer Name	Arnold Assenheimer
Road Authority	Alberta Transportation (AIT)	Review Date	20-Sep-2010
Contract Main. Area	CMA05	Dept. Reviewer Name	Steve Pasquan
Clear Roadway/Skew	9 /	Dept. Review Date	18-Nov-2010
AADT/Year	1,290 / 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	-	1800	MP	25.6	68X13	3.5	ROUND

Special Features	VERT STEEL STRUTS
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	On west side of pipe	Gas	200m south.
Power	60m N. of E. end of pipe - 1 wire.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Hwy turns west 90 degrees 100m S. of pipe, approach 40m North. 3 LANES & SHOULDER ON W. SIDE
Vertical Alignment		8	8	
Roadway Width (m)	13.000			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		Water 900 below crown. no evident problems.
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		5	5	
Heaving (mm)	50			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

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	01-Mar-2004			Water too deep.
Special Features				
Special Feature		N	N	
(Type : **VERT STEEL STRUTS**)				
Special Feature				
(Type :)				
Roof		N	N	Est.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	300			
Percent Sag				
Sidewall		N	N	(@ c/l, span 2143mm (19.1% Def) (photo) 2004/03/01) Accident damage d/s end at crown.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	343			
Percent Deflection				
Floor		N	N	(Construction damage near c/l 300mm - 2004/03/01)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	30			
Longitudinal Seams		N	N	Rivitted.
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		N	N	(Some pitting bottom 1/2 of culvert - 200/03/01)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
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): 1800, Type: MP**)				
Fish Passage Adequacy		5	5	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**2**	**2**	GR carried forward.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Water 900 below crown.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	
Heaving (mm)	50			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		5	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	7	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

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)	No			
Channel Bottom Degrading/Aggrading				STABLE
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
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) (%)	**22.2/22.2**	**Sufficiency Rating (Last/Now) (%)**	**39.1/39.8**	Est. Repl. Yr	2020	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Monitor sag. Low rating advisory sent to AT 05-Mar-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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	19-Nov-2013	Previous Inspection Date	27-May-2007		
Inspection Cycle (Default) (months)	39				
Comment					