Bridge Culvert Inspection

Bridge File Number	82289 -1 Bridge Culvert	Form Type	CUL1
Year Built	2000	Lot No.	2
Bridge or Town Name	VILLENEUVE	Inspector Name	Todd Warshawski
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS B
Located On	44:00 C1 15.015	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Apr-2013
Legal Land Location	NE SEC 30 TWP 54 RGE 26 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:48:45, 53:42:05	Data Entry Date	01-May-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA11	Review Date	29-Apr-2013
Clear Roadway/Skew	12 / -24 deg. (LHF)	Dept. Reviewer Name	
AADT/Year	5,320 / 2012 (A)	Dept. Review Date	
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	8		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2740	SP	42.7	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	To North.
Power	Single wire West r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag on U/S end.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On curve with good sight distance to South & adequate to North.
Vertical Alignment		9	9	
Roadway Width (m)	12.000			
Embankment		9	8	
Sideslope (__:1)	5.0			
(Height of Cover(m) : **0.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

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	N	Submerged
Heaving (mm)	600			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP**)				
Barrel Last Accessible Date	10-Dec-2007			2.3m water/ice in pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	(Damage on ring #7 repaired & painted. 2001/11/15)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	
Measured Span (mm)	2730			
Measured At Ring No.	5			
Deflection (mm)				
Percent Deflection	0			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
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		N	N	(Minor superficial at waterline. 10/Dec/2007)
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			Due to d/s beaverdam/blockage

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2740, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type :)				
Waterway Adequacy		9	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**N**	**N**	G.R. was "7" on 10/Dec/2007.

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	N	Submerged
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	900			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	Yes			Beaverdam 25m d/s.
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		8	8	
HWM (m below Top of Culvert)	0.3			Water level on 16-Apr-2013
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
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	2013	Remove d/s beaverdam.				
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) (%)**	**72.3/64.8**	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	As this structure has not been accessed for 2 or more cycles, a Level 2 inspection is required as per Bim manual section 13.9.1.5. Based on observed site evaluations we are recommending that this be deferred to a later date.	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	16-Jan-2015	Previous Inspection Date	06-Jul-2011		
Inspection Cycle (Default) (months)	21				
Comment					