Bridge Culvert Inspection

Bridge File Number	75987 -2 Bridge Culvert	Form Type	CUL1
Year Built	2002	Lot No.	1
Bridge or Town Name	MORINVILLE	Inspector Name	Kris Bosters
Located Over	2ND ORDER TRIBUTARY TO STUREGEON RIVER, 6.65.6.3, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	Brian Cote
Located On	LOCAL ROAD	Assistant Class	BR CLS B
Water Body Cl./Year		Inspection Date	24-Apr-2013
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	SW SEC 10 TWP 55 RGE 25 W4M	Data Entry Date	02-May-2013
Longitude, Latitude	-113:38:40, 53:43:51	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	29-Apr-2013
Contract Main. Area	CMA09	Dept. Reviewer Name	
Clear Roadway/Skew	8 /	Dept. Review Date	
AADT/Year	15 / 2013 (E)	Follow-Up By	
Road Classification	RLU-208G-90		
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	2440	2440	PCB	24.6			SQUARE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	10m South.	Gas	
Power	2 wire OH 25m East.	Municipal	
Others	Fiber optic south.	Problem (Y/N)	No
Remarks	File tag U/S but partly detached.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Near Hwy 2.
Vertical Alignment		8	8	Guardrail along Hwy 2.
Roadway Width (m)	8.000			
Embankment		8	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		N		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	Detached at joint from main culvert. 65mm gap.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	N	Water too deep to see.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2440, Rise (mm): 2440, Type: PCB**)				
Barrel Last Accessible Date	14-May-2004			(Deep water and silt. Approx 800 water, 600mm silt. - May/2008)
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Viewed from ends. Appears to be in good shape.
Measured Rise (mm)	2440			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		N	N	Viewed from ends. Appears to be in good shape.
Measured Span (mm)	2440			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	Under water and silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	Approx 25mm differential settlement between the last pipe and the D/S bevel end. Patched with cement and in stable condition.
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2440, Rise (mm): 2440, Type: PCB**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		9	9	
Baffle		N	N	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	G.R. previously rated "9" in 2004.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	N	Could not see any scour.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	N	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		9	9	
Bank Stability		9	4	Drainage into channel near u/s end is causing erosion.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**9**	**4**	

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	2013	Repair ditching into channel				
OTHER ACTION	2013	Dewater, Level II barrel				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**74.9/71.6**	Est. Repl. Yr	2070	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		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	Jacob Oresile	Previous Assistant's Name			
Next Inspection Date	24-Jan-2018	Previous Inspection Date	09-May-2008		
Inspection Cycle (Default) (months)	57				
Comment					