Bridge Culvert Inspection

Bridge File Number	86197 -1 Bridge Culvert	Form Type	CULM
Year Built	1978	Lot No.	4
Bridge or Town Name	Desilets flood control	Inspector Name	Brian Pientsch
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS A
Located On	2:58 C1 4.870	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	BR CLS B
Navigabil. Cl./Year		Inspection Date	15-Dec-2012
Legal Land Location	SW SEC 24 TWP 78 RGE 21 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:07:53, 55:46:01	Data Entry Date	12-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA03	Review Date	09-Jan-2013
Clear Roadway/Skew	12.7 /	Dept. Reviewer Name	David Morrison
AADT/Year	2,150 / 2011 (A)	Dept. Review Date	21-Mar-2013
Road Classification	RAU-213.4-110	Follow-Up By	
Detour Length (km)			

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1400	MP	28			ROUND
2	MAIN	-	1400	MP	28			ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Buried East ditch.	Gas	
Power	O/H 5 line - 40m West CL	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Residential approach 80m SW.
Vertical Alignment		9	9	
Roadway Width (m)	12.700			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Direction		E		South pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type:**)				
Cutoff Wall		X	X	
Bevel End		7	N	Snow covered.
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	General rating carried forward 25-Aug-2011.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Barrel Last Accessible Date	15-Dec-2012			South pipe 1300mm ice to crown.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Superficial rust spots.
Measured Rise (mm)	1390			Estimated due to ice on floor.
Measured At Ring No.	4			
Sag (mm)	10			
Percent Sag	1			
Sidewall		7	7	Superficial rust spots.
Measured Span (mm)	1366			@ CL
Measured At Ring No.				Deflection inward.
Deflection (mm)	34			
Percent Deflection				
Floor		5	5	Scaling rust.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	6	
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		5	5	Superficial rust spots on sidewall and roof, scaling rust on floor.
Corrosion By Soil (Y/N)	No			
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): 1400, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Drop structure in channel.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			Some riprap washed in u/s end barrel.
Drift (Y/N)	Yes			
Barrel General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Barrel Last Accessible Date	15-Dec-2012			North pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Superficial rust spots.
Measured Rise (mm)	1360			@ CL
Measured At Ring No.				Construction tear 4m from u/s end at 12:00 - 80mmx80mm.
Sag (mm)	40			
Percent Sag	3			
Sidewall		7	7	Superficial rust spots.
Measured Span (mm)	1374			@ CL
Measured At Ring No.				Deflection inward.
Deflection (mm)	26			
Percent Deflection				
Floor		5	5	Scaling rust.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
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	4	Superficial rust spots on sidewall and roof, scaling rust on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Drop structures in channel.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type:**)				
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	N	Snow covered.
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			Snow covered.
Above/Below (mm)	500			
Scour Protection		7	N	Snow covered.
(Type : **GABION**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	General Rating carried fowd. 25-Aug-11

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		**8**	**8**	

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**58.5/69.0**	Est. Repl. Yr	2028	Maint. Reqd. (Y/N)	No

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	Brian Pientsch	Previous Assistant's Name	Clem Guenette
Next Inspection Date	15-Sep-2014	Previous Inspection Date	25-Aug-2011
Inspection Cycle (Default) (months)	21		
Comment			