Bridge Culvert Inspection

Bridge File Number	13228 -1 Bridge Culvert	Form Type	CULM
Year Built	1956	Lot No.	4
Bridge or Town Name	ASHMONT	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO WHITEFISH CREEK, 7.25.2.7, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	866:02 C1 13.372	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Dec-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 12 TWP 61 RGE 12 W4M	Data Entry Date	15-Jan-2013
Longitude, Latitude	-111:40:42, 54:15:25	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	09-Jan-2013
Contract Main. Area	CMA08	Dept. Reviewer Name	Paul Catt
Clear Roadway/Skew	9.8 /	Dept. Review Date	18-Jan-2013
AADT/Year	380 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2314	SP	28.7	152X51	3.0	ROUND
2	MAIN	-	2019	SP	36	152X51	2.8	ROUND

Special Features	
Special Features Comment	Tag on West side of N pipe crown.

Utilities (Located at)

Utility Attachments			
Telephone	Along West ditch.	Gas	
Power	1 wire OH 22m East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	7	Farm entrance NE. Middle of sag.
Vertical Alignment		7	7	
Roadway Width (m)	10.000			
Embankment		7	7	Cover over North span - 1.6m.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

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

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
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): , Rise (mm): 2314, Type: SP**)				
Barrel Last Accessible Date	14-Dec-2012			North span - overflow pipe.-300mm ice/silt along floor.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	est 4.5%
Measured Rise (mm)	2400			
Measured At Ring No.	3			
Sag (mm)	0			
Percent Sag	0			
Sidewall		7	7	
Measured Span (mm)	2420			
Measured At Ring No.	4			
Deflection (mm)	106			
Percent Deflection	5			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				1N stagger
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2314, Type: SP**)				
Coating		N	4	Minor pitting along the waterline.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			
Fish Passage Adequacy		4	4	Above S.B
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	6	
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 # : **1, Span Type: Primary Span**)				
Direction		E		North span.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		W		South span.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			At inlet.
Upstream End General Rating		**6**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2019, Type: SP**)				
Barrel Last Accessible Date	14-Dec-2012			Ice 10 from crown.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Some sag noted, estimated roof sag 5%.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		6	6	
Measured Span (mm)	2119			
Measured At Ring No.	6			
Deflection (mm)	100			
Percent Deflection	5			
Floor		N	N	Covered with 400mm of silt.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	Barrel 1/2 full of ice.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				Staggered IN.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2019, Type: SP**)				
Coating		N	5	Scaling at waterline.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	Abandoned beaver dam at inlet partially blocking entrance. Debris from beavers @ U/S end of barrel.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		E		South span.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Stream curves into the pipe and shortly after it exits.
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	Yes			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**55.5/56.4**	Est. Repl. Yr	2025	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	Wade Nanninga	Previous Assistant's Name			
Next Inspection Date	14-Mar-2016	Previous Inspection Date	28-Apr-2011		
Inspection Cycle (Default) (months)	39				
Comment					