

Bridge Culvert Inspection			
Bridge File Number	86034 -1 Bridge Culvert	Form Type	CULM
Year Built	1984	Lot No.	4
Bridge or Town Name	HAWK HILLS	Inspector Name	Brian Pientsch
Located Over	WATERCOURSE, WATERCRS-NI	Inspector Class	BR CLS A
Located On	692:02 C1 10.409	Assistant Name	Clem Guenette
Water Body Cl./Year		Assistant Class	BR CLS B
Navigabil. Cl./Year		Inspection Date	19-Mar-2013
Legal Land Location	SE SEC 17 TWP 95 RGE 21 W5M	Data Entry By	Lisa Fairhurst
Longitude, Latitude	-117:22:17, 57:14:08	Data Entry Date	08-Apr-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA04	Review Date	08-Apr-2013
Clear Roadway/Skew	8.6 / 30 deg. (RHF)	Dept. Reviewer Name	
AADT/Year	100 / 2012 (A)	Dept. Review Date	
Road Classification	RLU-208-100	Follow-Up By	
Detour Length (km)	13		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1600	MP	38	125X26	2.8	ROUND
2	MAIN	-	1600	MP	38	125X26	2.8	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	1N south r/w	Gas	
Power	2 - wire o/h North r/w	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Pipe is 200m E. of residence entrances on both sides of road. 200m W. of field entrance on N. side of road.
Vertical Alignment	8	8	
Roadway Width (m)	8.600		
Embankment	8	8	
Sideslope ( _ :1)	5.0		
(Height of Cover(m) : 2)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>			
Direction	N		West barrel
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
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Cutoff Wall		X	X	
Bevel End		7	N	Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	GR carried forward
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Barrel Last Accessible Date	19-Mar-2013			1309mm ice to crown
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	(June 04/03)
Measured Rise (mm)	1585			
Measured At Ring No.				
Sag (mm)	15			
Percent Sag	1			
Sidewall		N	7	
Measured Span (mm)	1606			
Measured At Ring No.				
Deflection (mm)	6			
Percent Deflection	1			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	60			
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 above waterline. Scaling rust from 3:00 to 9:00
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): 1600, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		S		west barrel
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		6	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	N	Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		7	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	GR carried forward
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		N		east barrel.
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
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Bevel End		7	N	Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	N	Snow covered
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	GR carried forward
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)</b>				
Barrel Last Accessible Date	19-Mar-2013			1305mm ice to crown
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	Heavy equipment has creased roof at 3.0 m to 5.0 m at first seam. - still functional (04-Jun-03)
Measured Rise (mm)	1593			
Measured At Ring No.				
Sag (mm)	7			
Percent Sag				
Sidewall		N	7	@ centre line
Measured Span (mm)	1602			
Measured At Ring No.				
Deflection (mm)	2			
Percent Deflection				
Floor		N	N	Ice on floor
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	60			
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 above waterline, scaling rust from 3:00 to 9:00
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		
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	(Rock goes beyond standard limits. 20 Oct 2009) Snow covered
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		7	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	N	Snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	GR carried forward
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)	0.3			
Drift (Y/N)	No			Drift line in Riprap. - 20 Oct 2009)
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>8</b>	<b>8</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>66.1/81.6</b>	Est. Repl. Yr	2029	Maint. Req. (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	Eric Carcoux		Previous Assistant's Name				
Next Inspection Date	19-Jun-2016		Previous Inspection Date	20-Oct-2009			
Inspection Cycle (Default) (months)	39						
Comment							