

Bridge Culvert Inspection			
Bridge File Number	79872 -1 Bridge Culvert	Form Type	CULM
Year Built	1910	Lot No.	1
Bridge or Town Name	TILLEY	Inspector Name	Tom Carey
Located Over	EID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS A
Located On	876:02 C1 14.868	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	16-Feb-2010
Legal Land Location	NE SEC 13 TWP 18 RGE 13 W4M	Data Entry By	Kelsey Roberts
Longitude, Latitude	-111:39:24, 50:31:39	Data Entry Date	23-Mar-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	24-Feb-2010
Clear Roadway/Skew	11 /	Dept. Reviewer Name	Lorenz Bohnert
AADT/Year	200 / 2008 (A)	Dept. Review Date	26-Mar-2010
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	40		

**Bridge Culvert Information**

Number of Culverts	3							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	1829	1119	FP	24.2	68X13		ARCH
2	MAIN	1829	1119	FP	24.2	68X13		ARCH
3	MAIN	1700	940	FP	24.2	68X13		ARCH
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power	3 wire west ditch	Municipal	
Others		Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	(1:1 over culverts)
Vertical Alignment		7	7	
Roadway Width (m)	11.000			
Embankment		N	N	snow covered
Sideslope ( _:1)	4.0			
(Height of Cover (m) : )				
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
(Pipe # : 1, Span Type: Primary Span)			
Direction	S		SOUTHEAST
End Treatment (Concrete, Steel, Others, None)	NONE		
Headwall	X	X	
Collar	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)				
Scour Protection		5	N	Snow
(Type : )				
(Avg. Rock Size (mm) : )				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1119, Type: FP)</b>				
Barrel Last Accessible Date	19-Jun-2003			Both ends completely snowed in.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	(LOCALIZED DAMAGE TO ROOF). 1744 x 830 @ W end of ring 1 @ midspan rise 815 (10.1% defl) @ midspan, span 1740 (2.4% defl)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	95			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	40			
Percent Deflection				
Floor		N	N	(MINOR CORROSION) 2003/06/19
Bulge (mm)	30			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	MID COUPLER HAS SOME DIRT INFILTRATION
Separation (mm)	40			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1119, Type: FP)				
Coating		N	N	(MINOR CORROSION)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		N	N	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	GENERAL RATING CARRIED FORWARD
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		N		SOUTHWEST
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		N	N	(LARGE RIPRAP-loss of fines around bevel end) 2003/06/19 Snow covered
(Type : )				
(Avg. Rock Size (mm) : )				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>6</b>	<b>N</b>	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		S		MIDDLE EAST NORTHEAST SAME AS MIDDLE
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	N	snow covered
(Type : )				
(Avg. Rock Size (mm) : )				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1119, Type: FP)</b>				
Barrel Last Accessible Date	21-Jan-1999			Both ends completely snowed in. Covered in snow Unable to access
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	(Localized damage to roof) (1744 x 830 @ W end of Ring 1) 2003*06/19
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	90			
Percent Deflection				
Floor		N	N	(Minor corrosion)
Bulge (mm)	290			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(Mid coupler has some dir infiltration) 2003/06/19
Separation (mm)	120			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1119, Type: FP)</b>				
Coating		N	N	(Minor Corrosion) 2003/06/03
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
<b>(Type : )</b>				
Waterway Adequacy		N	N	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	General rating carried forward

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 2, Span Type: Secondary Span)</b>				
Direction		N		MIDDLE WEST: NORTHWEST SAME AS MIDDLE
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
<b>(Shape : )</b>				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	50			
Scour Protection		N	N	snow covered
<b>(Type : )</b>				
<b>(Avg. Rock Size (mm) : )</b>				
Scour/Erosion		N	N	snow covered
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>5</b>	<b>N</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Direction		S		East
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	snow covered
(Type : )				
(Avg. Rock Size (mm) : )				
Scour/Erosion		N	N	
Beavers (Y/N)				
<b>Upstream End General Rating</b>		<b>5</b>	<b>N</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 1700, Rise (mm): 940, Type: FP)</b>				
Barrel Last Accessible Date	19-Jun-2003			
<b>Special Features</b>				
Special Feature				Both ends completely snowed in.
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	(Localized damage to roof) 2003/06/19
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	95			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	(minor corrosion)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	(mid coupler has some dirt infiltration) 2003/06/19
Separation (mm)				
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 1700, Rise (mm): 940, Type: FP)</b>				
Coating		N	N	(Minor Corrosion) 2003/06/19
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
<b>(Type : )</b>				
Waterway Adequacy		N	N	
Icing (Y/N)				
Silting (Y/N)				
Drift (Y/N)				
<b>Barrel General Rating</b>		<b>3</b>	<b>3</b>	G.R. carried forward

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 3, Span Type: Secondary Span)</b>				
Direction		N		West
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
<b>(Shape : )</b>				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	Snow
<b>(Type : )</b>				
<b>(Avg. Rock Size (mm) : )</b>				
Scour/Erosion		N	N	
Beavers (Y/N)				
<b>Downstream End General Rating</b>		<b>5</b>	<b>N</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		9	9	Irrigation gates 75m east
Bank Stability		N	N	Snow
HWM (m below Top of Culvert)				
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>9</b>	<b>9</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	2010	Repair pipes					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>33.3/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>60.1/60.1</b>	Est. Repl. Yr	2010	Maint. Reqd. (Y/N)	Yes
Special Comments for Next Inspection	Dimensions do not correspond to pipes- mixed up with old to new form changes- informed A.T. Feb. 18/10- scheduled for replacement in 2010.		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	Tim Davies		Previous Assistant's Name				
Next Inspection Date	16-May-2013		Previous Inspection Date	20-Feb-2007			
Inspection Cycle (Default) (months)	39						
Comment							