

Bridge Culvert Inspection			
Bridge File Number	77822 -1 Bridge Culvert	Form Type	CULM
Year Built	1991	Lot No.	4
Bridge or Town Name	DRAYTON VALL	Inspector Name	Wade Nanninga
Located Over	TRIBUTARY TO NORTH SASKATCHEWAN RIVER, 6.142, WATERCRS-ST	Inspector Class	BR CLS B
Located On	620:04 C1 27.516	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Jan-2011
Legal Land Location	NW SEC 32 TWP 48 RGE 7 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:59:59, 53:11:27	Data Entry Date	15-Feb-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA11	Review Date	14-Feb-2011
Clear Roadway/Skew	11.8 / -7 deg. (LHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,630 / 2009 (A)	Dept. Review Date	22-Feb-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	5		

**Bridge Culvert Information**

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	70.7	152X51	4.0	ROUND
2	MAIN	-	1810	SP	37.8	152X51	3.0	ROUND
Special Features	BARREL ELBOW							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	East r/w.	Gas	East off end outlet.
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	BF installed @ top of West headwall.		

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	In superelevated curve & gentle sag.
Vertical Alignment	7	7	No passing both directions. Limited sight distance both directions. SE ditch erosion .6 x 1.2 x 50m - photo.
Roadway Width (m)	12.000		
Embankment	4	N	
Sideslope ( _ :1)	4.0		
(Height of Cover(m) : 5.7)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction	W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	9	9	
Collar	N	N	(Chips on sides of slope protection. 16/Sept/2004) Snow covered.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Span Type: Primary Span)</b>				
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	
Bevel End		9	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		N	N	Iced over, no sign of problem.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	G.R. carried forward from 16/Sept/2004.

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP)</b>				
Barrel Last Accessible Date	24-Jan-2011			Ice 1.5m plus.
<b>Special Features</b>				
Special Feature		7	7	There are 2 elbows.
(Type : <b>BARREL ELBOW</b> )				
Special Feature				
(Type : )				
Roof		7	7	est
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	50			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)	3430			
Measured At Ring No.	10			
Deflection (mm)	70			
Percent Deflection	2			
Floor		N	N	Iced over.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)	0			
Longitudinal Seams		8	8	2N stagger
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
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): 3360, Type: SP)				
Coating		7	7	Superficial.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			1.5m plus standing water.
Fish Passage Adequacy		8	8	
Baffle		N	N	
(Type : )				
Waterway Adequacy		9	8	(Silt. 1994/10/03) Iced over.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	

Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		E			
End Treatment (Concrete, Steel, Others, None)	STEEL				
Headwall		X	X		
Collar		X	X		
Wingwalls (Shape : )		X	X		
Cutoff Wall		X	X		
Bevel End		8	8		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	500				
Scour Protection		N	N	Snow covered.	
(Type : )					
(Avg. Rock Size(mm) : )					
Scour/Erosion		N	N	Iced over, no sign of problems.	
Beavers (Y/N)	No				
<b>Downstream End General Rating</b>		<b>8</b>	<b>8</b>	G.R. carried forward from 16/Sept/2004.	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		W		South barrel.
End Treatment (Concrete, Steel, Others, None)	STEEL			
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		N	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	N	Iced over, not visible.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>8</b>	G.R. carried forward from 16/Sept/2004.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP)				
Barrel Last Accessible Date	24-Jan-2011			
<b>Special Features</b>				
Special Feature		7	7	
(Type : BARREL ELBOW)				
Special Feature				
(Type : )				
Roof		7	7	
Measured Rise (mm)				est
Measured At Ring No.				
Sag (mm)	50			
Percent Sag	3			
Sidewall		7	7	
Measured Span (mm)	1860			
Measured At Ring No.	6			
Deflection (mm)	50			
Percent Deflection	3			
Floor		N	N	Iced over.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	8	
Separation (mm)				
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
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): 1810, Type: SP)				
Coating		7	7	Superficial.
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	Yes			400mm plus standing water.
Fish Passage Adequacy		8	8	
Baffle		N	N	Iced over.
(Type : )				
Waterway Adequacy		9	8	(Silt. 1994/10/03) Iced over.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>7</b>	<b>7</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		1810 outlets into 3360 via welded junction has no downstream end.
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/Below (mm)				
Scour Protection		X	X	
(Type : )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		X	X	
Beavers (Y/N)				
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		8	8	
Bank Stability		8	4	Sloughing banks d/s.
HWM (m below Top of Culvert)	1.5			Log across inlet of pipe 1.
Drift (Y/N)	Yes			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>8</b>	<b>4</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>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>82.8/76.7</b>	Est. Repl. Yr	2034	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor erosion at SE.		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	Dave Lam		Previous Assistant's Name				
Next Inspection Date	24-Apr-2014		Previous Inspection Date	18-Dec-2007			
Inspection Cycle (Default) (months)	39						
Comment							