

Bridge Culvert Inspection				
Bridge File Number	75988 -1 Bridge Culvert		Form Type	CUL1
Year Built	1984		Lot No.	1
Bridge or Town Name	MORINVILLE		Inspector Name	Melanie Johnson
Located Over	2ND ORDER TRIBUTARY TO STURGEON RIVER, 6.65.6.2, WATERCRS-ST		Inspector Class	BR CLS B
Located On	37:02 L1 41.878;37:02 R1 41.877		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Nov-2011
Legal Land Location	SW SEC 3 TWP 55 RGE 25 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:38:37, 53:42:58		Data Entry Date	19-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA09		Review Date	13-Nov-2011
Clear Roadway/Skew	28.3 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	5,060 / 2010 (A)		Dept. Review Date	15-Dec-2011
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	6			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3240	2210	RPE	98.2	152X51	4.0	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	South & North r/w		Gas	
Power	4 wires North r/w.		Municipal	
Others	Street lamps.		Problem (Y/N)	No
Remarks	File tag North end.			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On/off ramp to interchange East of Hwy 2. Crest curve, limited sight distance.
Vertical Alignment		7	7	
Roadway Width (m)	11.800			
Embankment		8	8	
Sideslope ( __:1)	3.0			
(Height of Cover(m) : 11)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
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
Bevel End		7	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3240, Rise (mm): 2210, Type: RPE)</b>				
Barrel Last Accessible Date	25-Feb-2002			1.2m crown to ice level. Ice to thin to walk on. Viewed from ends, appears to be some deflections & roof flattening.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	(Local deformations all along roof, appears to be flattening. 95/02/10)
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	98			(4.5% estimated. 95/02/10)
Percent Sag	5			
Sidewall		N	N	(Span 3425 measured @ ring #8. 02/02/25) (Flattening with slight reverse curve near c/l. 95/02/10)
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	98			(Estimated. 25/Feb/2002)
Percent Deflection	3			
Floor		N	N	(1.0m clear, roof to floor. 2002/02/25)
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	(Unable to insp bottom row due to height of ice. (8th ring from North end, west side cracked, 135 mm of steel between cracks. 92/07/07) (Cracked seam below water level. 1000 water to roof, standing water. 2002/02/25)
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	N	(Bottom portion of pipe is discolored. 2002/02/25)
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3240, Rise (mm): 2210, Type: RPE)				
Fish Passage Adequacy		6	6	
Baffle		N	N	
(Type : )				
Waterway Adequacy		6	6	
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 over since 95/02/10
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
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	7	Rating based on visible portions.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Drainage ditch - channelized.
Bank Stability		4	4	Large slide - 90m long ar SE corner along hyw 2 road embankment.Slide is 10m W of channel.-grassed and appears stable.
HWM (m below Top of Culvert)				HWM 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
<b>Channel General Rating</b>		4	4	

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	2011	Perform Level II inspection & dewater. Last inspection was 2002.					
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>49.7/49.7</b>	Est. Repl. Yr	2019	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor cracks along W seams and pipe deflections.-25-Feb-2002 Reduce inspection cycle to 12 months until pipe is dewatered and inspected. Monitor embankment slide @ SW corner along Hwy 2.		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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	08-Aug-2013		Previous Inspection Date	23-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							