

Bridge Culvert Inspection				
Bridge File Number	75438 -1 Bridge Culvert		Form Type	CUL1
Year Built	1980		Lot No.	4
Bridge or Town Name	SWAN HILLS		Inspector Name	Russel Vanderschaaf
Located Over	MORSE RIVER, 8.11.95.2, WATERCRS-ST		Inspector Class	BR CLS B
Located On	32:12 C1 66.225		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	11-Feb-2013
Legal Land Location	NW SEC 2 TWP 66 RGE 10 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:24:22, 54:41:17		Data Entry Date	13-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA06		Review Date	07-Apr-2013
Clear Roadway/Skew	9.7 / 0 deg.		Dept. Reviewer Name	
AADT/Year	2,160 / 2012 (A)		Dept. Review Date	
Road Classification	RAU-210-110		Follow-Up By	
Detour Length (km)	139			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	3360	SP	40.2	152X51	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone		Gas	100m South crossing road.
Power	6 wires 60m South of culvert.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Road access 50m South. Crest curve to the south limiting sight distance. No passing SB.
Vertical Alignment		6	6	
Roadway Width (m)	9.700			
Embankment		7	7	
Sideslope ( _ :1)	3.0			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		N	N	Shoulder slab beside collar settled 300mm.24-Jul-2009 Under snow
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		6	6	Rate based on 50% visibility. Minor bend at 10 o'clock.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		5	N	Snow covered
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>400</b> )				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>4</b>	GR carried fwd.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1, Primary Span, Location Code: MAIN, Span (mm):</b>				<b>, Rise (mm): 3360, Type: SP)</b>
Barrel Last Accessible Date	11-Feb-2013			Ice 2.3m from crown
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	3	Crack in crown of ring 10 (at d/s end of pipe) with 90mm steel remaining.-photo Measurements not taken due to ice on floor, shape looks adequate. estimated
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	75			
Percent Sag	5			
Sidewall		6	6	50mm tear in sidewall North. Side d/s end ring 10 - probably from construction.
Measured Span (mm)	3412			
Measured At Ring No.	4			
Deflection (mm)	52			
Percent Deflection	2			
Floor		N	N	Under ice
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		5	3	Missing 3 bolts throughout pipe. Crack in crown of ring 10 (at d/s end of pipe) with 90mm remaining steel.-photo  1N stagger.
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	4	Superficial rust above ice. Alkaline deposits through bolts.
Corrosion By Soil (Y/N)	Yes			
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): , Rise (mm): 3360, Type: SP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>5</b>	<b>3</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		N	N	Under snow-only 30% visible
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			Couldn't tell due to snow cover.
Above/Below (mm)	400			
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>5</b>	<b>5</b>	GR carried fwd.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		5	5	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>7</b>	<b>7</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>55.6/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>58.0/46.8</b>	Est. Repl. Yr	2030	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor cracking in R10, not under road fill, just at d/s end near d/s barrel.		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	Brian Pientsch		Previous Assistant's Name	Lisbeth Medina			
Next Inspection Date	11-Nov-2014		Previous Inspection Date	06-Apr-2011			
Inspection Cycle (Default) (months)	21						
Comment							