

Bridge Culvert Inspection				
Bridge File Number	02489 -1 Bridge Culvert		Form Type	CUL1
Year Built	1959		Lot No.	4
Bridge or Town Name	MANNVILLE		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.16, WATERCRS-ST		Inspector Class	BR CLS A
Located On	881:06 C1 16.621		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Aug-2011
Legal Land Location	SW SEC 18 TWP 50 RGE 8 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-111:10:30, 53:18:38		Data Entry Date	19-Sep-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA15		Review Date	15-Aug-2011
Clear Roadway/Skew	9.8 / 0 deg.		Dept. Reviewer Name	Andrew Smikles
AADT/Year	560 / 2010 (A)		Dept. Review Date	26-Sep-2011
Road Classification	RCU-210-110		Follow-Up By	
Detour Length (km)	5			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2120	SP	61.6	152X51	3.5	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	Along W ditch.		Gas	
Power			Municipal	
Others			Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Bottom of sag crest to S, limited sight distance. T intersection @ top of crest to W.
Vertical Alignment		6	6	
Roadway Width (m)	10.000			
Embankment		4	4	Cattle grazing causing erosion @ East side.
Sideslope (__:1)	3.0			
(Height of Cover(m) : <b>10.3</b> )				
Guardrail (Y/N)	Yes			312m along SBL and 384m along NBL.
<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)	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		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		4	5	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>350</b> )				
Scour/Erosion		4	5	Undermining of bevel.
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>4</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2120, Type: SP)				
Barrel Last Accessible Date	08-Aug-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		6	6	Unable to measure due to silt-covered floor.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				Est 4% sag
Percent Sag				
Sidewall		5	5	Sidewall (South) soil corrosion all along South wall - water dripping from upper seam. Inwards.
Measured Span (mm)	2030			
Measured At Ring No.	10			
Deflection (mm)	90			
Percent Deflection	4			
Floor		N	N	Covered in 0.2m of silt.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	5	
Separation (mm)	0			
Longitudinal Seams		5	5	Seams leaking throughout culvert No cracks in visible seams. Approx 1/2 of the seams are properly lapped.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Rust color staining at lower bolts. -soil corrosion @ sidewall.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
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): 2120, Type: SP)				
Fish Passage Adequacy		7	7	there are fish
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>5</b>	<b>5</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		5	5	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		4	4	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	Erosion @ D/S end due to cattle grazing; armour OK.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>4</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>54.8/55.7</b>	Est. Repl. Yr	2025	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	Jason Rusu		Previous Assistant's Name				
Next Inspection Date	08-Nov-2014		Previous Inspection Date	06-Jul-2007			
Inspection Cycle (Default) (months)	39						
Comment							