

Bridge Culvert Inspection				
Bridge File Number	02350 -1 Bridge Culvert		Form Type	CUL1
Year Built	1961		Lot No.	2
Bridge or Town Name	ST. VINCENT		Inspector Name	Wade Nanninga
Located Over	YELLING CREEK, 7.12.4.3, WATERCRS-ST		Inspector Class	BR CLS B
Located On	881:16 C1 0.498		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Sep-2010
Legal Land Location	SW SEC 15 TWP 60 RGE 9 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-111:16:41, 54:11:06		Data Entry Date	06-Oct-2010
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA08		Review Date	20-Sep-2010
Clear Roadway/Skew	8 / -30 deg. (LHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	880 / 2009 (A)		Dept. Review Date	14-Oct-2010
Road Classification	RCU-208-110		Follow-Up By	
Detour Length (km)	3			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2314	2552	SPE	30.5	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	East r/w.	Gas	
Power	2 wires West r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag installed in top of roof, West end.		

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Accesses to North & South. Hwy 28 500m South
Vertical Alignment	8	8	
Roadway Width (m)	8.000		
Embankment	8	8	
Sideslope ( :1)	3.0		
(Height of Cover(m) : 1.2)			
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
Direction	W		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape : )			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		6	5	1 bolt & couple nuts missed on North side.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		5	5	Trees/shrubs blocking inlet.
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Barrel Last Accessible Date	10-Sep-2010			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	5	
Measured Rise (mm)	2440			
Measured At Ring No.	8			
Sag (mm)	112			
Percent Sag	4			
Sidewall		4	3	Cracked seam in one side in 3 rings.
Measured Span (mm)	2420			
Measured At Ring No.	8			
Deflection (mm)	106			
Percent Deflection	5			
Floor		6	N	500mm water
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		4	3	All cracks at 3:00 on South side of pipe. Ring 7 worst. #7, 8, 9 rings - photos. No change in crack measurements this inspection.
Total No. of Cracked Rings	3			
Total No. of Rings with Two Cracked Seams	0			2 rows under water and unable to inspect.
Min. Remaining Steel Between Cracks (mm)	70			1N
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	Superficial rust along the floor and lower sidewall.-12-Jun-2007
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2314, Rise (mm): 2552, Type: SPE)				
Ponding (Y/N)	Yes			Debris @ both ends causing 0.8m ponding in barrel.
Fish Passage Adequacy		X	4	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>4</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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		4	4	
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		4	4	Large scour hole @ end of bevel - stable.
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		5	5	D/S channel sharp bend to South.
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
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>5</b>	<b>5</b>	

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</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	Clean debris both ends.					
OTHER ACTION	2010	Replace missing nut at u/s end.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/33.3</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>56.7/44.2</b>	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor cracked seams, deflections, and scour.		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	10-Dec-2013		Previous Inspection Date	12-Jun-2007			
Inspection Cycle (Default) (months)	39						
Comment							