

Bridge Culvert Inspection				
Bridge File Number	80943 -1 Bridge Culvert		Form Type	CUL1
Year Built	1987		Lot No.	2
Bridge or Town Name	ENTWISTLE		Inspector Name	Todd Warshawski
Located Over	TRAIL-PED, OVER 50000 PS		Inspector Class	BR CLS B
Located On	16:10 L1 28.857;16:10 R1 28.809		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	27-Aug-2012
Legal Land Location	SW SEC 20 TWP 53 RGE 7 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-115:00:01, 53:35:29		Data Entry Date	05-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12		Review Date	29-Aug-2012
Clear Roadway/Skew	39.5 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	8,050 / 2011 (A)		Dept. Review Date	18-Sep-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)				

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2900	2900	BP	65.7			RECTANGLE
Special Features								
Special Features Comment								

**Posting Information**

Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)	No											
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required.											

**Utilities (Located at)**

Utility Attachments												
Telephone						Gas						
Power						Municipal						
Others	Street lighting.					Problem (Y/N)	No					
Remarks	All utilities in area. Bridge plaques on SE & NW wingwalls.											

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Entrances both directions.
Vertical Alignment		8	8	
Roadway Width (m)	39.500			WBL 17.4m, EBL 22.1m.
Embankment		7	7	
Sideslope (___:1)	4.0			
(Height of Cover(m) : 1.3)				
Guardrail (Y/N)	Yes			Missing 2 posts on NW.
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		9	8	
Collar		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Wingwalls (Shape : )		6	6	Wide vertical cracks NE & NW wingwalls.
Cutoff Wall		X	X	
Bevel End		X	X	Steel awning over entrance.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection (Type : <b>NATURAL</b> ) (Avg. Rock Size(mm) : )		8	8	
Scour/Erosion		8	8	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>8</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2900, Rise (mm): 2900, Type: BP)				
Barrel Last Accessible Date	27-Aug-2012			
<b>Special Features</b>				
Special Feature (Type : )				
Special Feature (Type : )				
Roof		8	7	
Measured Rise (mm)	2663			near center
Measured At Ring No.				Difference from design due to concrete floor.
Sag (mm)	0			
Percent Sag				
Sidewall		8	7	
Measured Span (mm)	2575			South end.
Measured At Ring No.				Difference from design due to concrete floor.
Deflection (mm)	0			
Percent Deflection				
Floor		7	7	
Bulge (mm)	0			Random narrow cracks along floor.
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	
Separation (mm)	30			Cracks @ both joints, west wall & roof. Concrete chips may fall on pedestrians - photo.
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2900, Rise (mm): 2900, Type: BP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type : )				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Siltng (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>8</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	7	
Collar		X	X	
Wingwalls		8	7	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		X	X	South end, end square with stairs leading in and wheel chair ramp. `
Heaving (mm)	0			Corrosion stains on steps (South).
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		8	7	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		8	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>8</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		9	9	
Roadway Surface		9	9	
(Type : <b>CONCRETE</b> )				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	None			
Lighting		7	7	50% of light covers have a small amount of graffiti.
Barrel Leakage (Y/N)	No			(Water draining at North headwall onto floor freezing up to 0.5m out from each sidewall. 10/Mar/2007)

Structure Usage				
		Last	Now	Explanation of Condition
Drainage		7	7	
Structure In Use (Y/N)	Yes			
<b>Grade Separation 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	2012	Patch cracks on circumferential joints.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>88.9/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>90.3/80.9</b>	Est. Repl. Yr	2050	Maint. Req. (Y/N)	Yes
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	Kris Bosters		Previous Assistant's Name				
Next Inspection Date	27-May-2014		Previous Inspection Date	05-Oct-2010			
Inspection Cycle (Default) (months)	21						
Comment							