

Bridge Culvert Inspection			
Bridge File Number	77042 -1 Bridge Culvert	Form Type	CUL1
Year Built	1969	Lot No.	1
Bridge or Town Name	HIGHRIDGE	Inspector Name	Melanie Johnson
Located Over	TRIBUTARY TO NEWTON CREEK, 8.11.84.33.2, WATERCRS-ST	Inspector Class	BR CLS B
Located On	777:03 C1 5.875	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	23-Aug-2011
Legal Land Location	NW SEC 7 TWP 58 RGE 1 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:09:03, 54:00:05	Data Entry Date	13-Sep-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA10	Review Date	07-Sep-2011
Clear Roadway/Skew	8.1 / 45 deg. (RHF)	Dept. Reviewer Name	Brent Herrick
AADT/Year	130 / 2010 (A)	Dept. Review Date	15-Sep-2011
Road Classification	RCU-209G-90	Follow-Up By	
Detour Length (km)	32		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1800	MP	39.6	68X13	3.5	ROUND
Special Features	VERT STEEL STRUTS							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone	West r/w.	Gas	
Power	2 wires east r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed.		

**Approach Road / Embankment**

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Farm entrance to South. Crest curve to North with limited sight distances.
Vertical Alignment	6	6	
Roadway Width (m)	8.100		
Embankment	7	7	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 3.7)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component	Last	Now	Explanation of Condition
Direction	E		
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls (Shape : )	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		4	4	Bevel projecting 2m.
Heaving (mm)	75			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		3	3	Embankment around pipe scouring and undermining bevel - photo. Bevel protruding from fill ~ 2m.
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		3	3	
Beavers (Y/N)	No			Drift caught on struts.
<b>Upstream End General Rating</b>		<b>3</b>	<b>3</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Barrel Last Accessible Date	23-Aug-2011			
<b>Special Features</b>				
Special Feature		7	5	Struts leaning
(Type : <b>VERT STEEL STRUTS</b> )				
Special Feature				
(Type : )				
Roof		3	3	
Measured Rise (mm)	1540			
Measured At Ring No.				
Sag (mm)	260			
Percent Sag	14			
Sidewall		3	3	Near 1/3.
Measured Span (mm)	2050			
Measured At Ring No.				
Deflection (mm)	250			
Percent Deflection	14			
Floor		N	4	Floor is uneven.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	90			
Longitudinal Seams		6	6	Riveted.
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		4	4	Pitting rust on floor. Spot stains at some joints.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		3	3	1.5m drop off end - photo.
Baffle		X	X	
(Type : )				
Waterway Adequacy		4	4	Scour hole @ D/S end, likely undersized. (0.3m. 22/Feb/2005)
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	G.R. increased by 1 pt due to presence of HSS struts.
Downstream 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	
Bevel End		4	4	Bevel projecting 1.5m from fill.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	1100			
Scour Protection		3	3	
(Type : <b>NONE</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		3	3	Scour hole 6 x 6 x 1.5m deep. Bevel undermined - photo.
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>3</b>	<b>3</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		4	4	90 degree bend @ U/S end.
Bank Stability		6	6	
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>4</b>	<b>4</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	2013	Program replacement with regrading of S777.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>36.4/36.0</b>	Est. Repl. Yr	2013	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Shorten inspection to 24 month cycles or after high water event. Monitor deflections until replaced.		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	23-Nov-2014		Previous Inspection Date	05-May-2008			
Inspection Cycle (Default) (months)	39						
Comment							