

Bridge Culvert Inspection				
Bridge File Number	13946 -1 Bridge Culvert		Form Type	CULM
Year Built	1956		Lot No.	4
Bridge or Town Name	TURIN		Inspector Name	Jason Rusu
Located Over	LITTLE BOW RIVER, 2.12.12, WATERCRS-ST		Inspector Class	BR CLS A
Located On	25:02 C1 51.011		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	09-Dec-2011
Legal Land Location	NE SEC 3 TWP 12 RGE 19 W4M		Data Entry By	Anne Roberts
Longitude, Latitude	-112:30:34, 49:58:29		Data Entry Date	17-Jan-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA25		Review Date	26-Dec-2011
Clear Roadway/Skew	11.3 /		Dept. Reviewer Name	Tim Davies
AADT/Year	630 / 2010 (A)		Dept. Review Date	18-Jan-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	10			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1820	2450	BP	49.4			RECTANGLE
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	100 m south
Power		Municipal	
Others	H2O monitoring station @ NE	Problem (Y/N)	No
Remarks	+30m E		

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Winding road both sides. No passing allowed up hills. Vertical sag curve. Advisory speed-85km/h Delineator posts on outside of curves. Level over boxes for 3 m at east.
Vertical Alignment		5	5	
Roadway Width (m)	11.300			
Embankment		7	7	Channel formed from SW ditch joins river 5.0 m u/s.
Sideslope (__:1)	3.0			
(Height of Cover(m) : 3.7)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>5</b>	<b>5</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West end, north box.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls (Shape : )		6	6	Some vertical cracks and leaching minor.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	Buried and submerged
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>6</b>	<b>6</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	09-Dec-2011			N box
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	1mm wide long crack
Measured Rise (mm)	2450			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag				
Sidewall		N	7	0.5 to 1.0 mm wide vert & long cracks inside walls
Measured Span (mm)	1820			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection				
Floor		N	5	70mm settlement of sect 2 of box
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	7	
Separation (mm)	5			
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		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 1)</b>				
Ponding (Y/N)	No			
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>N</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 2)</b>				
Barrel Last Accessible Date	09-Dec-2011			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	1mm wide long cracks in roof
Measured Rise (mm)	2450			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag				
Sidewall		N	7	Cracks extend from sidewall to roof 0.5-1 mm avg wide vertical cracks
Measured Span (mm)	1820			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor		N	5	Floor drops about 100 mm where extension added in '58 at box 2, 3 & 4
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	7	
Separation (mm)	5			
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		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 2)</b>				
Ponding (Y/N)	No			
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>N</b>	<b>7</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 3)</b>				
Barrel Last Accessible Date	09-Dec-2011			3rd from North
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	
Measured Rise (mm)	2450			
Measured At Ring No.	1			
Sag (mm)				
Percent Sag				
Sidewall		N	7	
Measured Span (mm)	1820			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor		N	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		N	7	
Separation (mm)	5			
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		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 3)</b>				
Ponding (Y/N)	No			
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>N</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 4)</b>				
Barrel Last Accessible Date	09-Dec-2011			South cell
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	7	
Measured Rise (mm)	2450			
Measured At Ring No.	1			
Sag (mm)				
Percent Sag				
Sidewall		N	7	
Measured Span (mm)	1820			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	5	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	
Separation (mm)	5			
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		X	X	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 455, Rise (mm): 2450, Type: BP, Cell Sequence: 4)				
Ponding (Y/N)	No			
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>N</b>	<b>7</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East end
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	6	
Collar		X	X	
Wingwalls		6	6	
(Shape : )				
Cutoff Wall		N	N	Buried and submerged
Bevel End		X	X	
Heaving (mm)	0			
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>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		6	6	Steep cut banks at d/s both sides. minor-not visible
Bank Stability		5	5	
HWM (m below Top of Culvert)				No HWM visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>6</b>	<b>6</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>55.6/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>63.5/73.5</b>	Est. Repl. Yr	2026	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	09-Sep-2013		Previous Inspection Date	06-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							