

Bridge Culvert Inspection			
Bridge File Number	71888 -1 Bridge Culvert	Form Type	CULM
Year Built	1954	Lot No.	3
Bridge or Town Name	KINSELLA	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO GRATTAN CK, 5.15.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	14:12 C1 19.786	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Jan-2012
Legal Land Location	SE SEC 33 TWP 46 RGE 11 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:31:58, 53:00:13	Data Entry Date	31-Jan-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Jason Saly
Contract Main. Area	CMA16	Review Date	28-Jan-2012
Clear Roadway/Skew	13.2 / 0 deg.	Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,240 / 2010 (A)	Dept. Review Date	02-Feb-2012
Road Classification	RAU-213.4-120	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	3352	1676	BP	45.7			RECTANGLE
Special Features								
Special Features Comment	Elbow in barrel 10 deg. LHF at 15.2m from S end.							

**Utilities (Located at)**

Utility Attachments				
Telephone	Plowed in South ditch.	Gas		
Power	3 wires OH 30 m North of c/l.	Municipal		
Others	CNR Railway 40 m South of c/l. Fibre optic in North r/w.	Problem (Y/N)	No	
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve off to West. Grade to East into Kinsella.
Vertical Alignment		7	7	Shallow sag curve over culvert.
Roadway Width (m)	13.200			
Embankment		7	7	4 m berms, both sides. Some erosion at berm - no problem yet.
Sideslope ( _ :1)	2.0			
(Height of Cover(m) : 4.3)				
Guardrail (Y/N)	Yes			Length estimated at 150 m. 1 split post South side. Damage of W terminal end of S rail - minor.
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		N		West barrel
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	
Collar		X	X	
Wingwalls		5	5	Diagonal medium cracks in wingwalls.
(Shape : <b>FLARE</b> )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			Silted in 400mm.
Above/Below (mm)	400			
Scour Protection		5	5	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	

**Bridge Culvert Barrel**

Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 1)</b>				
Barrel Last Accessible Date				West barrel. Barrel bends NE at 2/3 L. (300-400mm silted in. 23Jun2010). Barrel not accessible; viewed from ends, looks OK.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
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)				
Corrosion By Water (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 1)</b>				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	(Siltng occurring on floor of barrel due to ponding at CNR structure to S).
Icing (Y/N)	No			
Siltng (Y/N)	Yes			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 2)</b>				
Barrel Last Accessible Date				East barrel. Barrel bends NE @ 2/3 L. Ice to 800mm from roof; viewed from ends, looks OK.
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	(Center wall at D/S end at waterline has heavy scaling. 14Jun2007).
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
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)				
Corrosion By Water (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1676, Rise (mm): 1676, Type: BP, Cell Sequence: 2)				
Camber POS/ZERO/NEG				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		5	5	(Siltng occurring on floor of barrel due to ponding at CNR structure to south).
Icing (Y/N)	No			
Siltng (Y/N)	Yes			
Drift (Y/N)	Yes			
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	GR was 5 from 14Jun2007 but don't know when barrel was last accessed.
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	
Collar		X	X	
Wingwalls (Shape : <b>FLARE</b> )		5	5	Rated what could be seen.
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection (Type : <b>NATURAL</b> ) (Avg. Rock Size(mm) : )		6	6	
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			Beaver dam at inlet of CNR culvert causing pipe to run near full capacity.
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		7	7	(Water will backup into lake to North in high flow - 2002).
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible. D/S end.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
<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	2012	At CNR culvert inlet.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Replace split guardrail posts S side & turned down section of guardrail.					
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>54.2/54.2</b>	Est. Repl. Yr	2022	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	Jason Saly		Previous Assistant's Name				
Next Inspection Date	10-Oct-2013		Previous Inspection Date	23-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							