

Bridge Culvert Inspection				
Bridge File Number	73232 -1 Bridge Culvert		Form Type	CUL1
Year Built	1972		Lot No.	2
Bridge or Town Name	KEOMA		Inspector Name	Rex Davidson
Located Over	3RD ORDER TRIBUTARY TO SERVICEBERRY CREEK, 3.29.9.13.1.1, WATERCRS-ST		Inspector Class	BR CLS B
			Assistant Name	
Located On	9:02 C1 7.259		Assistant Class	
Water Body Cl./Year			Inspection Date	25-May-2010
Navigabil. Cl./Year			Data Entry By	Erin Roberts
Legal Land Location	SW SEC 2 TWP 25 RGE 27 W4M		Data Entry Date	04-Jul-2010
Longitude, Latitude	-113:40:46, 51:06:11		Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)		Review Date	02-Jun-2010
Contract Main. Area	CMA30		Dept. Reviewer Name	Lorenz Bohnert
Clear Roadway/Skew	9 / 18 deg. (RHF)		Dept. Review Date	05-Jul-2010
AADT/Year	2,840 / 2009 (A)		Follow-Up By	
Road Classification	RAU-209-110			
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	-	3659	SP	37.8	152X51	3.5	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments				
Telephone	WEST R/W		Gas	
Power	3 W @ EAST R/W		Municipal	
Others			Problem (Y/N)	No
Remarks				

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	4:1 directly over pipe 2.5:1 @ sideslopes
Vertical Alignment		9	9	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope ( __:1)	2.5			
(Height of Cover(m) : <b>0.8</b> )				
Guardrail (Y/N)	Yes			Minor damage
<b>Approach Road / Embankment General Rating</b>		<b>8</b>	<b>8</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West end. 20mm wide crk @ S
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	X	
Collar		5	5	10mm WIDE CRK @ N-is cast 2m in front of bevel. Crk is @ end of bevel. Same as crack @ S.
Wingwalls		X	X	
(Shape : )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		6	6	Has minor rotation clockwise.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>250</b> )				
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 # : <b>1</b> , Primary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>3659</b> , Type: <b>SP</b> )				
Barrel Last Accessible Date	30-Apr-2008			Barrel has clockwise rotation and lean to south.- NOT ACCESSIBLE
Special Features				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		4	N	[Poor torquing of bolts - suspect cracked seam on outside, inward cusing of seam @ rings #5,6,7,8,9 @ roof & sidewall. Rings 1, 3, 4, 5, 6, 8 @ floor] April 30/ 2008
Measured Rise (mm)	3470			
Measured At Ring No.	7			
Sag (mm)	189			
Percent Sag	5			
Sidewall		4	N	
Measured Span (mm)	3860			
Measured At Ring No.	7			
Deflection (mm)	201			
Percent Deflection	5			
Floor		4	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		4	N	
Separation (mm)	0			
Longitudinal Seams		4	N	[30-40mm gap @ long roof seams, 30mm gap @ longit. floor seams.
Total No. of Cracked Rings	0			No cracked seams - visual] April 30/2008
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Scaling & Ptting. Barrel has poor shape @ d/s end - photo
Corrosion By Soil (Y/N)	No			
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): 3659, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>4</b>	<b>4</b>	GR carried forward
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	east end.
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		6	6	Clockwise rotation, leans to south.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		4	4	Bevel projects avg 500 mm from fill.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		4	4	ROCK DISPLACED D/S
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		6	6	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM Not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<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	2010	10m3 Class 2					
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>44.4/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>58.4/58.2</b>	Est. Repl. Yr	2015	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 Rusu		Previous Assistant's Name				
Next Inspection Date	25-Feb-2012		Previous Inspection Date	30-Apr-2008			
Inspection Cycle (Default) (months)	21						
Comment							