

Bridge Culvert Inspection				
Bridge File Number	74601 -1 Bridge Culvert		Form Type	CULM
Year Built	1957		Lot No.	4
Bridge or Town Name	MORLEY		Inspector Name	Garry Roberts
Located Over	CHINIKI CREEK, 2.13.50, WATERCRS-ST		Inspector Class	BR CLS A
Located On	1:04 R1 17.267;1:04 L1 17.303		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	10-Feb-2012
Legal Land Location	NW SEC 19 TWP 25 RGE 6 W5M		Data Entry By	Erin Roberts
Longitude, Latitude	-114:50:06, 51:08:54		Data Entry Date	14-Mar-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA28		Review Date	22-Feb-2012
Clear Roadway/Skew	27.9 /		Dept. Reviewer Name	Tim Davies
AADT/Year	18,610 / 2010 (A)		Dept. Review Date	22-Mar-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	7290	2430	BP	46.6			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)				
Utility Attachments				
Telephone	South ditch		Gas	80m South
Power	50.0 m North of c/l 3W. MAIN TRANSMISSION LINE		Municipal	
Others	Fibre optic cable North ditch.		Problem (Y/N)	No
Remarks				

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Acceleration lane over structure @ E/B lane.
Vertical Alignment		7	7	
Roadway Width (m)	27.900			
Embankment		8	8	
Sideslope ( __:1)	5.0			
(Height of Cover(m) : 0.6)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

Upstream End				
<b>Culvert Component</b>		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	4	Horizontal cracking. Isolated spalling.
Collar		X	X	
Wingwalls		6	6	MOVED INWARD 40mm-50mm @ top
(Shape : <b>FLARE</b> )				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	concrete apron
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	200			
Scour Protection		6	6	Some concrete bags along wingwalls and @ S.B.
(Type : <b>BAGGED CONC</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			20m U/S
<b>Upstream End General Rating</b>		<b>6</b>	<b>4</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	10-Feb-2012			West barrel.
Special Features				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	7	Alkali stain at roof last 2m @ d/s. WITH HAIRLINE CRACKS.
Measured Rise (mm)	2430			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		5	6	Heavy scaling @ d/s end only.
Measured Span (mm)	2340			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	(covered-400m deep water & silt) Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	7	
Separation (mm)	6			
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	At D/S IM.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		5	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date	10-Feb-2012			Center barrel
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	6	Alkali stains last 1.0 m at d/s. CORROSION STAINS @ ROOF @ MID.
Measured Rise (mm)	2430			
Measured At Ring No.				Scaling near midspan
Sag (mm)	0			
Percent Sag				
Sidewall		5	6	CORROSION STAINS @ EAST BARREL @ EAST WALL @ D/S END. Med scaling & alkalai @ interior walls South ends
Measured Span (mm)	2430			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	(400mm MUD & WATER) Ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	7	
Separation (mm)	6			
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		X	X	At D/S IM.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 2)				
Fish Passage Adequacy		5	6	
Baffle		X	X	
(Type : )				
Waterway Adequacy		7	7	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
Barrel General Rating		5	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 3)				
Barrel Last Accessible Date		10-Feb-2012		East Barrel
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		5	6	Heavy scaling from crack in roof @ 1m from d/s end
Measured Rise (mm)		2430		
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		5	6	Heavy scaling at D/S end only.
Measured Span (mm)		2430		
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	(400mm water) Ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	7	
Separation (mm)		6		
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		
Ponding (Y/N)		No		

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP, Cell Sequence: 3)				
Fish Passage Adequacy		5	5	
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>5</b>	<b>6</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		5	5	
Collar		X	X	
Wingwalls (Shape : <b>FLARE</b> )		5	5	Wings have moved in 123 mm but strut is holding them from further movement. MOVED AWAY 40 mm from box.
Cutoff Wall		X	X	
Bevel End		X	X	concrete apron
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection (Type : <b>BAGGED CONC</b> ) (Avg. Rock Size(mm) : )		6	6	SOME CONCRETE FILLED SANDBAGS
Scour/Erosion		6	6	
Beavers (Y/N)	No			10m D/S
<b>Downstream End General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)	1.2			No visible HWM
Drift (Y/N)	Yes			Drift @ u/s end in channel
Channel Bottom Degrading/Aggrading	AGGRADING			Beaverdam at U/S.
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</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							
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>55.6/66.7</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.5/64.9</b>	Est. Repl. Yr	2030	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	10-Nov-2013		Previous Inspection Date	16-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							