

Bridge Culvert Inspection			
Bridge File Number	75211 -1 Bridge Culvert	Form Type	CUL1
Year Built/Lined	1960/1994	Lot No.	4
Bridge or Town Name	DUCHESS	Inspector Name	Jon Davies
Located Over	EID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	36:08 C1 12.075	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	14-Jan-2012
Legal Land Location	NE SEC 36 TWP 20 RGE 15 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-111:57:02, 50:44:34	Data Entry Date	27-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	20-Jan-2012
Clear Roadway/Skew	10.6 /	Dept. Reviewer Name	Tim Davies
AADT/Year	1,450 / 2010 (A)	Dept. Review Date	11-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	5		

#### Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
2	MAIN FULL LINER	-	2400	MP	36	125X26	2.8	ROUND
Special Features								
Special Features Comment								

#### Utilities (Located at)

Utility Attachments			
Telephone	East ROW	Gas	
Power	At East and West ROW. Crossing South	Municipal	Street lights at East and West ROW
Others	Fibre optic cable East ROW	Problem (Y/N)	No
Remarks			

#### Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	Jct SH 550 20 m South.
Vertical Alignment	5	6	Rises to South. Turning lanes over structure.
Roadway Width (m)	10.600		
Embankment	7	6	6:1 then 3:1 at pipe ends
Sideslope (__:1)	3.0		
(Height of Cover(m) : 1.4)			
Guardrail (Y/N)	No		
<b>Approach Road / Embankment General Rating</b>	<b>5</b>	<b>6</b>	

#### Upstream 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	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>200</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>2</b> , Secondary Span, Location Code: <b>MAIN</b> , Span (mm): , Rise (mm): <b>2400</b> , Type: <b>MP</b> )				
Barrel Last Accessible Date	14-Jan-2012			
<b>Special Features</b>				
Special Feature				
(Type : )				
Special Feature				
(Type : )				
Roof		9	6	Roof shape is good at mid length. Sag occurs at R 1 and 4 under embankment. Est.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	120			
Percent Sag	5			
Sidewall		N	6	
Measured Span (mm)	2530			
Measured At Ring No.	1			
Deflection (mm)	130			
Percent Deflection	5			
Floor		N	N	Ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	5	
Separation (mm)	80			
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		N	6	Minor corrosion at sidewall
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 # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type : )				
Waterway Adequacy		8	8	Handles all West side ditch drainage
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
<b>Barrel General Rating</b>		<b>N</b>	<b>6</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		9	9	
Bank Stability		8	8	
HWM (m below Top of Culvert)	0.8			No HWM visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>9</b>	<b>9</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>69.6/74.7</b>	Est. Repl. Yr	2041	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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	14-Oct-2013		Previous Inspection Date	22-Jun-2010			
Inspection Cycle (Default) (months)	21						
Comment							