

Bridge Culvert Inspection				
Bridge File Number	80463 -1 Bridge Culvert		Form Type	CULM
Year Built	1999		Lot No.	1
Bridge or Town Name	RAYMOND		Inspector Name	Jon Davies
Located Over	RID - IRRIGATION C, WATERCRS-IC		Inspector Class	BR CLS B
Located On	52:02 C1 15.632		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	28-Sep-2011
Legal Land Location	SE SEC 13 TWP 6 RGE 20 W4M		Data Entry By	Erin Roberts
Longitude, Latitude	-112:34:12, 49:27:54		Data Entry Date	01-Nov-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA25		Review Date	03-Oct-2011
Clear Roadway/Skew	9 / 15 deg. (RHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	1,260 / 2010 (A)		Dept. Review Date	17-Nov-2011
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information

Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1400	MP	30			ROUND
2	MAIN	-	1400	MP	30			ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	South ROW		Gas	NE corner
Power	North Row		Municipal	
Others	Fibre Optic Cable North ROW		Problem (Y/N)	No
Remarks				

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	Canal access at 4 corners
Vertical Alignment	8	8	
Roadway Width (m)	8.000		
Embankment	7	7	6:1 at berm, 2:1 over both pipes at both ends
Sideslope (__:1)	6.0		
(Height of Cover(m) : 1.8)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	8	8	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)			
Direction			West pipe North end
End Treatment (Concrete, Steel, Others, None)	NONE		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP)				
Barrel Last Accessible Date				Not accessible- due to high water depth
Special Features				
Special Feature				West pipe
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	No sight line possible as per special comments regarding roof bulges in East pipe from previous inspection.
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		N	N	
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): , Rise (mm): 1400, Type: MP)				
Camber POS/ZERO/NEG				Not able to get sight line
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	GR carried forward
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction				West pipe South end
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		N	5	
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction				East pipe North end
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape :)		X	X	
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		5	5	Natural and IM rock
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		5	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP)				
Barrel Last Accessible Date				not accessible- due to high water depth
Special Features				
Special Feature				East pipe
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	No sight line possible as per special comments regarding roof bulges in East pipe from previous inspection.
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		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG				Nto able to get sight line

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1400, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	N	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction				East pipe South end
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		5	5	Sharp bends both ends
Bank Stability		6	6	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			U/S pump anchored in channel with wire filter half way across channel
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

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							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.2/44.1	Est. Repl. Yr	2030	Maint. Req. (Y/N)	No
Special Comments for Next Inspection	Monitor roof bulges in R1 and R2 of East pipe. Inspect West pipe when accessible.		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	28-Jun-2013		Previous Inspection Date	19-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							