

Bridge Culvert Inspection			
Bridge File Number	73925 -1 Bridge Culvert	Form Type	CULM
Year Built	1989	Lot No.	4
Bridge or Town Name	RAYMOND	Inspector Name	Jon Davies
Located Over	SMR - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	52:02 C1 4.916	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Sep-2011
Legal Land Location	SW SEC 13 TWP 6 RGE 21 W4M	Data Entry By	Erin Roberts
Longitude, Latitude	-112:43:04, 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	11.9 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,010 / 2010 (A)	Dept. Review Date	17-Nov-2011
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	4							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	3400	4800	BP	43.8			RECTANGLE
2	MAIN	3400	4800	BP	43.8			RECTANGLE
3	MAIN	3400	4800	BP	43.8			RECTANGLE
4	MAIN	3400	4800	BP	43.8			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w & North r/w.	Gas	
Power	North and South row- crosses West	Municipal	
Others	Fiber optics North row	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	7	7	Local road intersection 50m West
Vertical Alignment	8	8	
Roadway Width (m)	12.000		
Embankment	7	7	
Sideslope (_ :1)	4.0		
(Height of Cover(m) : 1.2)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	7	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
(Pipe # : 1, Span Type:)			
Direction	S		South end
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	7	7	Some vertical hairline cracks.
Collar	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type:)				
Wingwalls (Shape :)		7	6	Inward movement of wall 60mm at SW and 40mm at SE. Handrail on the wing wall and headwalls- base plates corroding. Measured at top headwall
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 300)		7	7	Some 400mm.
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	6	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Barrel Last Accessible Date	19-Jan-2010			West cell. Not accessible due to high water flow and depth.
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		7	N	(Transverse narrow cracking with white stains in sidewalls and roof.) 19-Jan-2010
Measured Rise (mm)	4800			
Measured At Ring No.	1			PR 7
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	(Isolated cracks)19-Jan-2010
Measured Span (mm)	3400			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	High water
Bulge (mm)	0			
Measured At Ring No.	1			
Abrasion (Y/N)	No			
Circumferential Seams		X	X	
Separation (mm)	0			
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	N	PR 7
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Barrel Last Accessible Date	19-Jan-2010			2nd from West. Not accessible due to high water depth and flow
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	PR 7
Measured Rise (mm)	4800			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	(Isolated vetical cracks) 19-Jan-2010 PR 7
Measured Span (mm)	3400			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor		N	N	High water depth and flow
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)	0			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	N	PR 7

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Barrel Last Accessible Date	19-Jan-2010			3rd from West- not accessible due to high water depth and flow
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	PR 7
Measured Rise (mm)	4800			
Measured At Ring No.	1			
Sag (mm)				
Percent Sag				
Sidewall		7	N	(Isolated cracks) 19-Jan-2010
Measured Span (mm)	3400			
Measured At Ring No.	1			
Deflection (mm)				
Percent Deflection				
Floor		N	N	High water depth and flow
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)	0			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 3, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	N	PR 7
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Barrel Last Accessible Date	19-Jan-2010			East Cell- not accessible due to high water depth and flow
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	N	PR 7
Measured Rise (mm)	4800			
Measured At Ring No.	1			
Sag (mm)	0			
Percent Sag				
Sidewall		7	N	(Isolated Vertical cracks) 19-Jan-2010 PR 7
Measured Span (mm)	3400			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	High water depth and flow
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	
Separation (mm)	0			
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)				

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Secondary Span, Location Code: MAIN, Span (mm): 3400, Rise (mm): 4800, Type: BP)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Siltting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	N	PR 7
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 4, Span Type:)				
Direction		N		North end
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Narrow vertical cracks at handrail bases Corrosion stains @ handrail base plate
Collar		X	X	
Wingwalls		7	6	(Bottoms of wingwalls have crept in 25mm) Jan-19-2010 Inward movements of wingwalls. 40mm at NW and NE measured at top
(Shape :)				
Cutoff Wall		N	N	
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	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	Drop structure approx 60m U/S. CPR bridge abuts 100m D/S.- Bridge is removed
Bank Stability		8	8	
HWM (m below Top of Culvert)	2.0			HWM on rock protection
Drift (Y/N)	No			

Structure Usage				
		Last	Now	Explanation of Condition
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		8	8	

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) (%)	77.8/55.6	Sufficiency Rating (Last/Now) (%)	76.4/63.9	Est. Repl. Yr	2050	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	28-Jun-2013		Previous Inspection Date	19-Jan-2010			
Inspection Cycle (Default) (months)	21						
Comment							