Bridge Culvert Inspection

Bridge File Number	02183 -1 Bridge Culvert	Form Type	CUL1
Year Built	1966	Lot No.	4
Bridge or Town Name	RAYMOND	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO KIPP COULEE, 11.9.6.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	844:02 C1 2.812	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Jun-2012
Navigabil. Cl./Year		Data Entry By	Kelsey Roberts
Legal Land Location	SW SEC 30 TWP 5 RGE 20 W4M	Data Entry Date	24-Jun-2012
Longitude, Latitude	-112:41:45, 49:24:30	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	15-Jun-2012
Contract Main. Area	CMA25	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	12.9 /	Dept. Review Date	29-Jun-2012
AADT/Year	370 / 2011 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1829	SP	57.3	152X51	3.0,3.0,3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	west ditch	Gas	
Power	CROSSES CHANNEL 175 m E 3 WIRE	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Bottom of sag
Vertical Alignment		6	6	
Roadway Width (m)	9.600			
Embankment		7	7	8 m.berm
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6.4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				West
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 : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SP**)				
Barrel Last Accessible Date	18-Mar-2001			not accessible due to deep water.
Special Features				
Special Feature				(Could only get through 1st 2/3 pf pipe too much ice & H20 @ d/s end. 2% defl'n/1% defl'n - 2002-06-18 Lots of rust-loss of sec but no perf)
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	viewed from U/S end- roof shape appears adequate. (P.R. 5 39mm of sag). 18-Mar-2001
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	39			
Percent Sag				
Sidewall		N	N	(P.R. 4 21mm of deflection)18-Mar-2001
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	21			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	(Some bolts loose, lots of alkali stain) 20002/06/18 P.R. 4 18-Mar-2001
Separation (mm)				
Longitudinal Seams		N	N	(bolts loose) 2006/01/10
Total No. of Cracked Rings	0			P.R.4 18-Mar-2001
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	N	(Loss of surface, no perf, alkali stain) 2002/06/18 P.R.3 18-Mar-2001
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1829, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	(0.5m freeboard) 18-Jun-2002
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**
Direction				East
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	Not visible P.R.4 18-Mar-2001
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**60.6/60.4**	Est. Repl. Yr	2020	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Roof shape appears stable. Reccomend Level 11 if next 2015 Aug/Sept/Oct inspection barrel not accessible- or reschedule to inspect from ice.	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	11-Sep-2015	Previous Inspection Date	19-Jun-2009		
Inspection Cycle (Default) (months)	39				
Comment					