Bridge Culvert Inspection

Bridge File Number	76602 -1 Bridge Culvert	Form Type	CUL1
Year Built	1967	Lot No.	4
Bridge or Town Name	FORT MACLEOD	Inspector Name	Jason Rusu
Located Over	TRIBUTARY TO MCNAB COULEE, 2.12.22.1.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	511:02 C1 3.686	Assistant Class	
Water Body Cl./Year		Inspection Date	18-Nov-2012
Navigabil. Cl./Year		Data Entry By	Kelsey Roberts
Legal Land Location	SE SEC 15 TWP 8 RGE 25 W4M	Data Entry Date	15-Dec-2012
Longitude, Latitude	-113:18:18, 49:38:26	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	01-Dec-2012
Contract Main. Area	CMA26	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	8.5 /	Dept. Review Date	27-Dec-2012
AADT/Year	200 / 2011 (A)	Follow-Up By	
Road Classification	RCU-208-110		
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2027	2241	MPE	21.9	68X13	4.2	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South row	Gas	40 m east.
Power	4 wire to north.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Residential access 10m East
Vertical Alignment		7	7	
Roadway Width (m)	8.500			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.5**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				SOUTH
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		6	6	
Heaving (mm)	70			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	7	Some of rocks have washed into pipe.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2241, Type: MPE**)				
Barrel Last Accessible Date	18-Nov-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	9% Sag
Measured Rise (mm)	2033			
Measured At Ring No.	2			
Sag (mm)	208			
Percent Sag	9			
Sidewall		4	4	INWARD BULGE IN E WAL @ 2ND JOINT FR. U/S END.
Measured Span (mm)	2220			
Measured At Ring No.	2			
Deflection (mm)	193			
Percent Deflection	9			
Floor		6	6	
Bulge (mm)	50			
Measured At Ring No.	2			
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	50			
Longitudinal Seams		7	7	rivetted
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
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): 2027, Rise (mm): 2241, Type: MPE**)				
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			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				NORTH
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	N	Snow covered
Heaving (mm)	40			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		6	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			(Rip-rap at d/s end is piled above inv.) Sept-5-2009
Downstream End General Rating		**7**	**N**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
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) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**61.6/59.8**	Est. Repl. Yr	2020	Maint. Reqd. (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	18-Feb-2016	Previous Inspection Date	05-Sep-2009		
Inspection Cycle (Default) (months)	39				
Comment					