Bridge Culvert Inspection

Bridge File Number	71281 -1 Bridge Culvert	Form Type	CUL1
Year Built	1972	Lot No.	4
Bridge or Town Name	HILL SPRING	Inspector Name	Jason Rusu
Located Over	UID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS A
Located On	800:02 C1 19.660	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	08-Dec-2012
Legal Land Location	SW SEC 19 TWP 4 RGE 27 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-113:37:23, 49:18:21	Data Entry Date	08-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA25	Review Date	16-Dec-2012
Clear Roadway/Skew	9.8 /	Dept. Reviewer Name	Tim Davies
AADT/Year	410 / 2011 (A)	Dept. Review Date	22-Jan-2013
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2100	MP	37.8	68X13	4.2,4.2,4.2	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	3 line at east ROW	Gas	
Power		Municipal	
Others	Suppernet at east ROW	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Farm entrance 60m N
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				West
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	
Wingwalls		7	7	Some cracking in walls.
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
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): 2100, Type: MP**)				
Barrel Last Accessible Date	08-Dec-2012			Barrel functions as a drop structure
Special Features				
Special Feature				Steel pipe safety rail both ends
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Culvert drops over 3 m from W. end to middle then levels off.
Measured Rise (mm)	2000			
Measured At Ring No.	2			
Sag (mm)	100			
Percent Sag	4			
Sidewall		N	6	
Measured Span (mm)	2200			
Measured At Ring No.	2			
Deflection (mm)	100			
Percent Deflection	4			
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.	2			
Abrasion (Y/N)	No			
Circumferential Seams		N	6	Welded together
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)				
Coating		N	5	Pitted rust lower 1/4
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 2100, Type: MP**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				East
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	
Wingwalls		6	6	Some cracking in walls.
(Shape :)				
Cutoff Wall		N	N	Concrete baffle walls in D/S apron Buried
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
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	Canal gate u/s 30m
Bank Stability		8	8	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/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) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**63.5/68.5**	Est. Repl. Yr	2023	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	08-Mar-2016	Previous Inspection Date	08-Sep-2009		
Inspection Cycle (Default) (months)	39				
Comment					