Bridge Culvert Inspection

Bridge File Number	75053 -1 Bridge Culvert	Form Type	CUL1
Year Built	1968	Lot No.	4
Bridge or Town Name	PICTURE BUTT	Inspector Name	Garry Roberts
Located Over	LNI - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS A
Located On	519:04 C1 12.146	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	20-May-2010
Legal Land Location	SW SEC 2 TWP 11 RGE 22 W4M	Data Entry By	Kelsey Roberts
Longitude, Latitude	-112:54:58, 49:52:23	Data Entry Date	17-Aug-2010
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Ash Morjaria
Contract Main. Area	CMA25	Review Date	29-May-2010
Clear Roadway/Skew	10.4 / -8 deg. (LHF)	Dept. Reviewer Name	Lorenz Bohnert
AADT/Year	1,390 / 2009 (A)	Dept. Review Date	18-Aug-2010
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2133	1549	RPP	18.6	152X51		PIPE ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH ditch	Gas	crosses road 20m.e.
Power	NORTH ditch-3 line	Municipal	
Others		Problem (Y/N)	No
Remarks	power comes from east & turns north at pipe and goes west		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	6	T-interection 200m W
Vertical Alignment		6	9	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		south invert
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				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		6	6	
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): 2133, Rise (mm): 1549, Type: RPP**)				
Barrel Last Accessible Date	20-May-2010			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	4	POOR NESTING OF ROOF PLATES(up to 12mm gap) Flattening of roof in Rings 1,2 and 3.
Measured Rise (mm)	1475			
Measured At Ring No.	2			
Sag (mm)	74			
Percent Sag	5			
Sidewall		4	4	Sidewalk cracks
Measured Span (mm)	2170			
Measured At Ring No.	5			
Deflection (mm)	37			
Percent Deflection	1			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		4	4	
Total No. of Cracked Rings	1			
Total No. of Rings with Two Cracked Seams	0			Cracks in ring 4 @ East side with 140mm left. No change in 3 valleys.
Min. Remaining Steel Between Cracks (mm)	140			1N stagger in roof. No S/W stagger.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	(THERE HAS BEEN A FIRE INSIDE CULVERT start pitted, rust on floor) 030717
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			Pitting in the lower half
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			400mm deep

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2133, Rise (mm): 1549, Type: RPP**)				
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			300mm silt
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		north invert
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	5	Minor damage to East side.
Heaving (mm)	70			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	7	turnout 10m.south(east) control gate 10m north
Bank Stability		7	7	
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**	**7**	

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) (%)**	**59.7/58.0**	Est. Repl. Yr	2015	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	Tim Davies	Previous Assistant's Name			
Next Inspection Date	20-Aug-2013	Previous Inspection Date	27-Feb-2007		
Inspection Cycle (Default) (months)	39				
Comment					