Bridge Culvert Inspection

Bridge File Number	73572 -1 Bridge Culvert	Form Type	CUL1
Year Built	1984	Lot No.	4
Bridge or Town Name	GLEICHEN	Inspector Name	Jon Davies
Located Over	WID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	1:14 R1 25.610;1:14 L1 25.647	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	11-Feb-2012
Legal Land Location	SW SEC 6 TWP 23 RGE 22 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-113:04:29, 50:55:17	Data Entry Date	18-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA30	Review Date	27-Feb-2012
Clear Roadway/Skew	25.4 / -25 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	5,940 / 2010 (A)	Dept. Review Date	22-Mar-2012
Road Classification	RAD-412.4-120	Follow-Up By	
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	4353	3035	RPE	75.6	152X51		ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East and West ROW.	Gas	
Power	1 wire West ROW and crossing 30 m North.	Municipal	
Others	Fibre optic cable at East ROW.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Intersection immediately North.
Vertical Alignment		7	7	Crest curve to South. Turn out lanes over pipe.
Roadway Width (m)	26.800			
Embankment		7	6	
Sideslope (__:1)	4.5			
(Height of Cover(m) : **2.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Some narrow cracks-minor.
Collar		7	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

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)	400			
Scour Protection		6	5	Minor displacement at NW and SW.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **350**)				
Scour/Erosion		6	5	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4353, Rise (mm): 3035, Type: RPE**)				
Barrel Last Accessible Date	11-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Shape looks good.
Measured Rise (mm)				
Measured At Ring No.				Estimate.
Sag (mm)	100			
Percent Sag	3			
Sidewall		N	7	
Measured Span (mm)	4394			
Measured At Ring No.	10			
Deflection (mm)	41			
Percent Deflection	1			
Floor		N	N	Ice covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	Seams not visible at lower sidewall and floor.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				3 N stagger at roof center.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	7	Minor staining at boltholes above waterline. Minor corrosion at waterline and below.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 4353, Rise (mm): 3035, Type: RPE**)				
Fish Passage Adequacy		8	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		7	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		7	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	6	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	45 degree bend from NW to inlet.
Bank Stability		7	6	
HWM (m below Top of Culvert)	0.8			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		**6**	**6**	

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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**64.3/69.3**	Est. Repl. Yr	2029	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	11-Nov-2013	Previous Inspection Date	16-Jul-2010
Inspection Cycle (Default) (months)	21		
Comment			