Bridge Culvert Inspection

Bridge File Number	71172 -1 Bridge Culvert	Form Type	CUL1
Year Built	1955	Lot No.	2
Bridge or Town Name	THREE HILLS	Inspector Name	Dave Lam
Located Over	TRIBUTARY TO GHOSTPINE CREEK, 3.50.7, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	583:02 C1 32.705	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Jul-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 6 TWP 32 RGE 22 W4M	Data Entry Date	16-Aug-2011
Longitude, Latitude	-113:07:15, 51:42:26	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	27-Jul-2011
Contract Main. Area	CMA20	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	8.4 / 7 deg. (RHF)	Dept. Review Date	29-Aug-2011
AADT/Year	410 / 2010 (A)	Follow-Up By	
Road Classification	RCU-208-110		
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	-	2400	MP	24	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	4 wire O/H - North r/w.	Municipal	Water North r/w.
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Farm approach 50m East. In bottom of shallow sag.
Vertical Alignment		7	7	
Roadway Width (m)	8.400			
Embankment		9	7	Trans. crack over pipe, previously sealed.
Sideslope (__:1)	3.5			
(Height of Cover(m) : **0.4**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
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		5	5	2 small tears in West side - photo. Minor bent roof edge - photo.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		8	8	Well vegetated.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP**)				
Barrel Last Accessible Date	15-Jul-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	2460			
Measured At Ring No.				
Sag (mm)	60			
Percent Sag				
Sidewall		8	8	
Measured Span (mm)	2385			Midspan.
Measured At Ring No.				
Deflection (mm)	15			
Percent Deflection				
Floor		N	N	Under water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)	20			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		7	7	Exterior end at roof corroding, typical.
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): , Rise (mm): 2400, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		8	8	Well vegetated.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

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				Unknown.
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	2011	Paint galvanized tears in NW bevel.				
OTHER ACTION	2011	Seal ACP transverse crack over pipe.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**85.1/85.0**	Est. Repl. Yr	2034	Maint. Reqd. (Y/N)	Yes

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	Dave Lam	Previous Assistant's Name			
Next Inspection Date	15-Oct-2014	Previous Inspection Date	17-Mar-2005		
Inspection Cycle (Default) (months)	39				
Comment					