Bridge Culvert Inspection

Bridge File Number	13401 -2 Bridge Culvert	Form Type	CUL1
Year Built	2005	Lot No.	3
Bridge or Town Name	LINDBROOK	Inspector Name	Dave Lam
Located Over	KATCHEMUT CREEK, 6.62.13, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	833:04 C1 17.189	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Jul-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 25 TWP 50 RGE 20 W4M	Data Entry Date	16-Aug-2011
Longitude, Latitude	-112:48:22, 53:20:49	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	27-Jul-2011
Contract Main. Area	CMA16	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	12 / 10 deg. (RHF)	Dept. Review Date	29-Aug-2011
AADT/Year	980 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
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	-	3000	MP	47	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	W r/w.	Gas	
Power	20m E of c/l, 1 wire.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment			8	Farm entrance both directions.
Vertical Alignment			7	
Roadway Width (m)	11.900			
Embankment			8	W measured.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating			**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall			8	
Collar			8	
Wingwalls			X	
(Shape :)				
Cutoff Wall			N	Buried in fill.

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End			9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	780			
Scour Protection			9	CL 1.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion			9	Silt fence fallen down.
Beavers (Y/N)	No			
Upstream End General Rating			**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Barrel Last Accessible Date	14-Feb-2005			1.7m of water on 11Jul2011.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall			N	(2913 span at u/s end (5m in). 2933 span at c/l. 2918 span at d/s end (5m in). 14Feb2005). 2.9% inwards.
Measured Span (mm)	2913			
Measured At Ring No.				
Deflection (mm)	87			
Percent Deflection	3			
Floor			N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			N	(14Feb2005).
Separation (mm)	10			
Longitudinal Seams			N	
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			8	
Corrosion By Soil (Y/N)				
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): 3000, Type: MP**)				
Fish Passage Adequacy			8	
Baffle			X	
(Type :)				
Waterway Adequacy			8	
Icing (Y/N)	No			(14Feb2005).
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating			**N**	GR was N from 05Jun2007.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall			X	
Collar			X	
Wingwalls			X	
(Shape :)				
Cutoff Wall			X	
Bevel End			9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	730			
Scour Protection			9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion			9	
Beavers (Y/N)	No			
Downstream End General Rating			**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment			5	Meandering stream.
Bank Stability			6	
HWM (m below Top of Culvert)	1.0			(05Jun2007).
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			**5**	

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	Remove silt fence at both ends.				
OTHER ACTION	2013	Perform Lvl 2 barrel inspection if unable to access at next regular inspection.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**/55.6**	**Sufficiency Rating (Last/Now) (%)**	**/71.0**	Est. Repl. Yr	2060	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		Previous Assistant's Name			
Next Inspection Date	11-Oct-2014	Previous Inspection Date			
Inspection Cycle (Default) (months)	39				
Comment					