

Bridge Culvert Inspection			
Bridge File Number	08214 -1 Bridge Culvert	Form Type	CUL1
Year Built	1956	Lot No.	2
Bridge or Town Name	TOMAHAWK	Inspector Name	Kris Bosters
Located Over	TOMAHAWK CREEK, 6.130, WATERCRS-ST	Inspector Class	BR CLS A
Located On	759:04 C1 4.316	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	25-Oct-2012
Legal Land Location	NW SEC 13 TWP 51 RGE 6 W5M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-114:45:48, 53:24:20	Data Entry Date	13-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA12	Review Date	04-Nov-2012
Clear Roadway/Skew	9.7 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	1,260 / 2011 (A)	Dept. Review Date	20-Nov-2012
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	32		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	5000	5000	AP	43.9			ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	West r/w.	Gas		
Power	5 wires East r/w.	Municipal		
Others	Gauging station East r/w. AB supernet fibre optics East r/w.	Problem (Y/N)	No	
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Residential & field entrances each way. In sag. Limited sight distance. Slight crest to North, 100m.
Vertical Alignment		6	6	
Roadway Width (m)	9.700			Roadway in poor condition, cracks in wheel paths.
Embankment		6	6	Patches to roadway indicate some instability of the embankment. 2:1 transitioning to 3:1.
Sideslope (___:1)	2.0			
(Height of Cover(m) : 7)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		3	3	Wide cracks between headwall and arch. Water seeping through - photo. Scaling on top of headwall.
Collar		X	X	
Wingwalls (Shape : FLARE)		5	5	Narrow diagonal cracking and wide vertical cracks.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 5000, Rise (mm): 5000, Type: AP)				
Barrel Last Accessible Date	25-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Wide cracks with staining at several locations.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		4	4	Wide crackd with heavy staining at 4.5,6,16,18,25,27,28.5,38,40m from u/s end.-photos
Measured Span (mm)				
Measured At Ring No.				Spalls and deteriorated concrete along lower wall at u/s end.-photos
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	Under water/ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	10 to 15mm gaps in circ. Some minor patching on seams.
Separation (mm)	7			
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 5000, Rise (mm): 5000, Type: AP)				
Ponding (Y/N)	Yes			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	(1998/12/03)
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		4	4	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		3	3	Cracked with 160mm gap between pipe and headwall - photo. Rebar exposed with a severe loss of dimension. Headwall deforming due to soil pressures.
Collar		X	X	
Wingwalls (Shape : FLARE)		4	4	Narrow diagonal cracking. Wide crack & spalling North wing.
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 400)		6	6	
Scour/Erosion		6	6	
Beavers (Y/N)	Yes			
Downstream End General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	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	2012	Repair headwalls/wingwalls.					
OTHER ACTION	2012	Patch sidewalls.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	49.7/49.7	Est. Repl. Yr	2025	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Continue to monitor cracking both headwalls. Monitor barrel circumferential seam cracking/leaching.		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	Todd Warshawski		Previous Assistant's Name				
Next Inspection Date	25-Jan-2016		Previous Inspection Date	25-Jan-2012			
Inspection Cycle (Default) (months)	39						
Comment							