Bridge Culvert Inspection

Bridge File Number	73604 -1 Bridge Culvert	Form Type	CUL1
Year Built	1969	Lot No.	4
Bridge or Town Name	CHAUVIN	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO BATTLE RIVER, 5.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	14:16 C1 53.854	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Jan-2012
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 2 TWP 45 RGE 1 W4M	Data Entry Date	02-Feb-2012
Longitude, Latitude	-110:01:52, 52:50:31	Reviewer Name	Jason Saly
Road Authority	Alberta Transportation (AIT)	Review Date	28-Jan-2012
Contract Main. Area	CMA15	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	10.8 /	Dept. Review Date	09-Feb-2012
AADT/Year	1,530 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2610	2877	SPE	105.5	152X51	3.5,3.5,5.5	ELLIPSE
Special Features								
Special Features Comment		5% V.E.						

Utilities (Located at)

Utility Attachments			
Telephone	Plowed through South ditch.	Gas	
Power	1 wire OH 35m South.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Long 4 to 6% grades in both directions.
Vertical Alignment		5	5	
Roadway Width (m)	10.800			
Embankment		5	5	Ditch erosion all four corners grassed and stable.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **14.6**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	0			
Scour Protection		4	4	Insufficient.
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Gap under bevel end, scoured.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2877, Type: SPE**)				
Barrel Last Accessible Date	10-Jan-2012			(Measured 2673x2842 span @ R10. Measured 2635x2868 span @ R6. 02/04/25).
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	(300mm silt on floor. 18Sep2005). Unable to measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	120			
Percent Sag				
Sidewall		N	6	Cracks found @ 9:00 W side in R10 & 14. R14 NA due to ice.
Measured Span (mm)	2642			
Measured At Ring No.	9			
Deflection (mm)	62			2.4%
Percent Deflection	2			
Floor		N	N	Under ice.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		4	4	Cracks unchanged. R10 cracked - 120mm of steel left. R14 starting to crack - no change. (Bolts missing in R7). Unable to confirm floor seams, covered by ice. Roof 100% improper lap. Poorly torqued seams.
Total No. of Cracked Rings	2			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	120			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2610, Rise (mm): 2877, Type: SPE**)				
Ponding (Y/N)	Yes			Towards North end.
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			At R8.
Silting (Y/N)	Yes			
Drift (Y/N)	Yes			
Barrel General Rating		**4**	**4**	

Downstream 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	
Bevel End		6	6	
Heaving (mm)	200			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection		4	4	
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Scour along both sides of bevel from backwash. (Scour hole D/S 1.5m deep. 23Jun2010).
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		4	4	Cracks in ground on N side slope. All cracks are below crown of pipe.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**4**	

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) (%)**	**49.3/49.3**	Est. Repl. Yr	2020	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	Jason Saly	Previous Assistant's Name	
Next Inspection Date	10-Oct-2013	Previous Inspection Date	23-Jun-2010
Inspection Cycle (Default) (months)	21		
Comment			