Bridge Culvert Inspection

Bridge File Number	73649 E-2 Bridge Culvert	Form Type	CUL1
Year Built	1999	Lot No.	4
Bridge or Town Name	FORT SASK	Inspector Name	Shane Hall
Located Over	ASTOTIN CREEK, 6.62.1, WATERCRS-ST	Inspector Class	BR CLS A
Located On	15:06 R1 4.187	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	13-Dec-2011
Legal Land Location	SW SEC 21 TWP 55 RGE 21 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:04:19, 53:45:54	Data Entry Date	29-Jan-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA14	Review Date	19-Jan-2012
Clear Roadway/Skew	15.9 /	Dept. Reviewer Name	Brent Herrick
AADT/Year	8,120 / 2010 (A)	Dept. Review Date	02-Feb-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	-	5230	SP	45.7	152X51	4.0	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Street lights	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to Hwy 830 immediately west.
Vertical Alignment		9	9	
Roadway Width (m)	14.000			
Embankment		7	4	Ditch run off @ SE causing gullying 6mx1mx1m-photo
Sideslope (__:1)	6.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Few transverse hairline cracks.
Collar		6	6	Several wide cracks.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 5230, Type: SP**)				
Barrel Last Accessible Date				Water level 3.85m to crown. Barrel not accessible since construction. Viewed from ends. Shape & condition look good. Ice not safe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Appears in good shape when viewed from ends.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	N	Appears in good shape when viewed from ends.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	1N
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 5230, Type: SP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	G.R. was "7" in 1999 after construction.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	Few hairline cracks.
Collar		7	7	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

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)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**63.9/63.9**	Est. Repl. Yr	2049	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	Arnold Assenheimer	Previous Assistant's Name			
Next Inspection Date	13-Sep-2013	Previous Inspection Date	16-Mar-2010		
Inspection Cycle (Default) (months)	21				
Comment					