

Bridge Culvert Inspection				
Bridge File Number	09642 -1 Bridge Culvert		Form Type	CUL1
Year Built	1989		Lot No.	4
Bridge or Town Name	SANDY LAKE		Inspector Name	Wade Nanninga
Located Over	WABASCA RIVER, 8.10.18, WATERCRS-ST		Inspector Class	BR CLS B
Located On	813:08 C1 22.557		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	07-Jan-2011
Legal Land Location	NE SEC 6 TWP 78 RGE 22 W4M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-113:24:13, 55:43:52		Data Entry Date	03-Feb-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Arnold Assenheimer
Contract Main. Area	CMA06		Review Date	12-Jan-2011
Clear Roadway/Skew	12 / 25 deg. (RHF)		Dept. Reviewer Name	Brent Herrick
AADT/Year	520 / 2009 (A)		Dept. Review Date	08-Feb-2011
Road Classification	RCU-210-110		Follow-Up By	
Detour Length (km)	300			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4140	SP	50.6	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed on top of West headwall.		

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	8	8	In long gradual sag curve.
Vertical Alignment	8	7	
Roadway Width (m)	12.000		
Embankment	7	7	
Sideslope (__:1)	2.5		
(Height of Cover(m) : 3.5)			
Guardrail (Y/N)	Yes		
Approach Road / Embankment General Rating	8	7	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE		
Headwall	7	7	
Collar	6	6	Small spalled area on south side of bevel end. Cracks on top of collar, wide transverse cracks collar. Cracks near bottom bevel both sides caused by rocks.
Wingwalls (Shape :)	X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1500			
Scour Protection		4	N	Fill & riprap settled up to 0.5m beside collar undermixed - photo.-09-Aug-2007
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				Snow covered.
Scour/Erosion		4	N	
Beavers (Y/N)	No			
Upstream End General Rating		4	4	GR carried fwd.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4140, Type: SP)				
Barrel Last Accessible Date	08-Jan-2011			2.0m ice in barrel.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	4	
Measured Rise (mm)				est
Measured At Ring No.				
Sag (mm)	410			
Percent Sag	10			
Sidewall		N	4	
Measured Span (mm)	4545			
Measured At Ring No.	5			
Deflection (mm)	405			
Percent Deflection	10			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	
Total No. of Cracked Rings				Only 1/2 visible.
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				3N stagger
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	5	Superficial rust at ice line. Slight corrosion around bolts inside wall.
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): , Rise (mm): 4140, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type :)				
Waterway Adequacy		8	7	(Iced to within 1900 of crown. 2001/03/22)
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	4	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		7	N	Snow covered
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 350)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		7	7	GR carried forward.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		6	6	
Bank Stability		5	4	Erosion of bank 30 m U/S, sloughing.
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	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) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	63.5/53.4	Est. Repl. Yr	2034	Maint. Req'd. (Y/N)	No
Special Comments for Next Inspection	Monitor u/s settlement and undermining of collar.		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	07-Apr-2014		Previous Inspection Date	09-Aug-2007			
Inspection Cycle (Default) (months)	39						
Comment							