

Bridge Culvert Inspection				
Bridge File Number	01845 -1 Bridge Culvert		Form Type	CUL1
Year Built	1960		Lot No.	1
Bridge or Town Name	FALUN		Inspector Name	Owen Salava
Located Over	BIGSTONE CREEK, 5.47.4, WATERCRS-ST		Inspector Class	BR CLS A
Located On	795:06 C1 5.516		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Feb-2013
Legal Land Location	SW SEC 36 TWP 46 RGE 27 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-113:48:04, 53:00:34		Data Entry Date	22-Feb-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA17		Review Date	13-Feb-2013
Clear Roadway/Skew	7.9 /		Dept. Reviewer Name	Chris Black
AADT/Year	920 / 2011 (A)		Dept. Review Date	28-Mar-2013
Road Classification	RCU-208-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2610	2877	SPE	21.9	152X51	2.0,2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone	Plowed in West ditch.		Gas	
Power	2 wire OH 15m East of c/l.		Municipal	
Others	Fibre optics East r/w.		Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Numerous farm entrances to North. Hills to North & South.
Vertical Alignment		7	7	
Roadway Width (m)	8.000			Some minor settlement of road surface over culvert. Transverse crack over culvert & longitudinal crack NBL.
Embankment		7	7	
Sideslope (__:1)	2.0			(Height of Cover(m) : 1.5)
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		5	5	(Minor rust along floor. 30/Jan/2007).
Heaving (mm)	200			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection (Type :) (Avg. Rock Size(mm) :)		N	N	Snow covered.
Scour/Erosion		N	N	Snow covered.
Beavers (Y/N)	Yes			Small dam at inlet.
Upstream End General Rating		5	5	
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	08-Feb-2013			
Special Features				
Special Feature (Type :)				
Special Feature (Type :)				
Roof		6	6	Unable to measure due to ice.
Measured Rise (mm)				
Measured At Ring No.				Estimate.
Sag (mm)	127			
Percent Sag	5			
Sidewall		2	2	R4-6 with cracked longit.seam; R6 with 40mm steel remaining (photo).
Measured Span (mm)	2740			
Measured At Ring No.	5			
Deflection (mm)	170			6.5%
Percent Deflection	7			
Floor		N	N	(Corrosion @ bolt holes on floor seam losing metal. 30/Jan/2007) Ice covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		5	5	3rd seam from East end has 2 missing bolts.
Separation (mm)	0			
Longitudinal Seams		2	2	Minor crack growth, 2mm in 3 yrs.
Total No. of Cracked Rings	3			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	40			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		3	3	Rust through bolt holes on floor from 4 to 8 o'clock. (Pitting and scaling along floor only. 30Jan2007) - Floor pitting only partially seen.
Corrosion By Soil (Y/N)	Yes			
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): 2610, Rise (mm): 2877, Type: SPE)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Due to scour D/S.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			Debris in pipe.
Barrel General Rating		2	2	
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		6	6	
Heaving (mm)	75			
Invert Above/Below Stream Bed		ABOVE		
Above/Below (mm)	400			
Scour Protection		N	N	Snow covered.
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Scour hole 10m x 7m x 0.5m deep; visible with snow - no action, monitor.
Beavers (Y/N)		No		
Downstream End General Rating		4	4	
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		DEGRADING		Beaver dam 50m d/s.
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	2013	Longit. beam 3 seams or strut culvert.					
OTHER ACTION	2013	Seal roadway cracks.					
OTHER ACTION	2013	Remove dam & debris.					
OTHER ACTION	2013	Consider concrete floor.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	22.2/22.2	Sufficiency Rating (Last/Now) (%)	39.8/39.9	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Pipe is 5% deformed. Check floor for perforation. Monitor cracks yearly. LRA emailed to Donald Saunders 12Feb2013. Concrete beam repair may be better than struts due to site debris & beavers, but more costly.		Department Comments				
Maintenance Reviewed By		Date		Estimated Total	0		
Proposed Long-Term Strategy	culvert has 2 cracked seams. Min 40mm steel left. Cracks have not moved since 1998. Repair cracks if they move. Culvert should be ok until 2020. RS						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Owen Salava	Previous Assistant's Name					
Next Inspection Date	08-May-2016	Previous Inspection Date	04-Mar-2010				
Inspection Cycle (Default) (months)	39						
Comment							