

Bridge Culvert Inspection				
Bridge File Number	09522 -1 Bridge Culvert		Form Type	CUL1
Year Built	1986		Lot No.	2
Bridge or Town Name	WATER VALLEY		Inspector Name	Owen Salava
Located Over	SILVER CREEK, 3.89.25, WATERCRS-ST		Inspector Class	BR CLS A
Located On	579:02 C1 32.575		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	09-Aug-2011
Legal Land Location	NW SEC 25 TWP 29 RGE 6 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-114:43:16, 51:30:55		Data Entry Date	16-Sep-2011
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA28		Review Date	15-Aug-2011
Clear Roadway/Skew	12 / -16 deg. (LHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	200 / 2010 (A)		Dept. Review Date	19-Sep-2011
Road Classification	RCU-209G-90		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	-	3658	SP	56.7	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South ditch. Telus crosses road 25m West.	Gas	
Power	2 wires 100m to NW.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Curves East & West.
Vertical Alignment		6	6	
Roadway Width (m)	12.000			
Embankment		5	5	6m long x 2m wide x 1.2m deep erosion @ NW, rock lined.
Sideslope (:1)	3.0			
(Height of Cover(m) : 4.8)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		6	6	Narrow width cracks.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		4	4	Severe scaling, worst @ East - minor spall.

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 700)				
Scour/Erosion		5	5	
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): , Rise (mm): 3658, Type: SP)				
Barrel Last Accessible Date	01-Oct-2009			Water quickly reached deeper than waters. Viewed from ends; appears stable.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		3	N	
Measured Rise (mm)				
Measured At Ring No.				(Estimate, water 0.7m deep. 01Oct2009).
Sag (mm)	402			(01Oct2009)
Percent Sag	11			
Sidewall		3	N	
Measured Span (mm)	4060			
Measured At Ring No.	13			
Deflection (mm)	402			(01Oct2009)
Percent Deflection	11			
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		6	N	
Separation (mm)	0			
Longitudinal Seams		3	N	
Total No. of Cracked Rings	2			(R3 & 13 longit. seam crack @ W sidewall. 103mm remaining steel @ cracked W longit. sidewall seam @ R13. S wall seam missing bolt.
Total No. of Rings with Two Cracked Seams	0			105mm remaining R3 - photo. 50%. 01Oct2009).
Min. Remaining Steel Between Cracks (mm)	103			
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	
Corrosion By Soil (Y/N)	Yes			Corrosion coming through bolt holes. (Corrosion staining @ bolts. Superficial corrosion @ bevels & sidewalls R7, W. 01Oct2009).
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3658, Type: SP)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		3	3	GR carried forward from 01Oct2009.
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)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		5	5	Bevel projects 300mm from fill.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 900)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Downstream End General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		5	5	High banks in North channel. Minor sloughing D/S.
HWM (m below Top of Culvert)	3.2			(03/Oct/2002)
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		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	2015	Patch cutoff wall, 0.1m3 NH.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	51.7/52.8	Est. Repl. Yr	2030	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Shape & longit. seam at W sidewall stablized. No change a this inspction. No action for sidewall & cracked seam.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0
Proposed Long-Term Strategy	2006.07.28 Culvert should be good until 2035. May require repair in future. Liner may be option in the future.						
On 3-Year Program (Y/N)							
Proposed Action							
Previous Inspector's Name	Dave Lam		Previous Assistant's Name				
Next Inspection Date	09-Nov-2014		Previous Inspection Date	01-Oct-2009			
Inspection Cycle (Default) (months)	39						
Comment							