

Bridge Culvert Inspection				
Bridge File Number	70868 -1 Bridge Culvert		Form Type	CUL1
Year Built	1981		Lot No.	3
Bridge or Town Name	WESTWARD HO		Inspector Name	Owen Salava
Located Over	EAGLE CREEK, 3.92, WATERCRS-ST		Inspector Class	BR CLS A
Located On	27:06 C1 9.042		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	22-Oct-2012
Legal Land Location	SW SEC 5 TWP 33 RGE 4 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-114:31:59, 51:47:42		Data Entry Date	08-Nov-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA29		Review Date	30-Oct-2012
Clear Roadway/Skew	11 /		Dept. Reviewer Name	Andrew Smikles
AADT/Year	5,090 / 2011 (A)		Dept. Review Date	13-Nov-2012
Road Classification	RAU-211.8-110		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	-	1500	SP	54.3	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	Both ends.		Gas
Power	3 wire 30m North c/l. 1 wire crossing 50m East.		Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Crest curve to the east limiting sight distance. No passing.
Vertical Alignment		6	6	
Roadway Width (m)	11.000			
Embankment		7	7	North side only.
Sideslope (_ :1)	4.0			
(Height of Cover(m) : 4.2)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

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		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		N	6	Rock size on the small side.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	6	
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): 1500 , Type: SP)				
Barrel Last Accessible Date	22-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	R10:1580
Measured Rise (mm)	1580			
Measured At Ring No.	10			
Sag (mm)	80			5.3% upwards.
Percent Sag	5			
Sidewall		N	4	R10:1440
Measured Span (mm)	1390			
Measured At Ring No.	14			
Deflection (mm)	110			-7.3% inwards - monitor.
Percent Deflection	7			
Floor		N	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	Wall seam offset 4Nfrom floor & roof seams.
Separation (mm)	0			
Longitudinal Seams		N	6	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		N	6	Minor corrosion in invert.
Corrosion By Soil (Y/N)	No			
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): 1500, Type: SP)				
Fish Passage Adequacy		4	4	Only when water is higher than scour hole @ outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Based on scour hole @ outlet. (1/2 full of ice. 04Feb2011).
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
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		7	7	
Heaving (mm)	50			
Invert Above/Below Stream Bed		ABOVE		
Above/Below (mm)	200			
Scour Protection		N	4	Outlet higher than channel due to scour hole; too small to be effective.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 250)				
Scour/Erosion		N	4	Most rocks @ outlet pushed D/S building up rock dam - photo.
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	(Former U/S pond has dried up, no beaver action. 17/Nov/2003).
Bank Stability		6	6	
HWM (m below Top of Culvert)				
Drift (Y/N)		Yes		
Channel Bottom Degrading/Aggrading		DEGRADING		Rock dam buildup @ outlet.
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	Place Class II rocks in outlet scour hole, remove/scatter rock dam D/S.					
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) (%)	35.2/35.3	Est. Repl. Yr	2035	Maint. Req. (Y/N)	Yes
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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	22-Jul-2014		Previous Inspection Date	04-Feb-2011			
Inspection Cycle (Default) (months)	21						
Comment							