

Bridge Culvert Inspection				
Bridge File Number	74470 -1 Bridge Culvert		Form Type	CULM
Year Built	1955		Lot No.	1
Bridge or Town Name	BOTH A		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO REDWILLOW CREEK, 5.31.1.1, WATERCRS-ST		Inspector Class	BR CLS A
Located On	12:14 C1 16.122		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	31-Aug-2012
Legal Land Location	SE SEC 28 TWP 38 RGE 18 W4M		Data Entry By	Marcia Chavez
Longitude, Latitude	-112:30:20, 52:17:38		Data Entry Date	18-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA20		Review Date	06-Sep-2012
Clear Roadway/Skew	12.7 / 25 deg. (RHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	2,100 / 2011 (A)		Dept. Review Date	22-Oct-2012
Road Classification	RAU-213.4-110		Follow-Up By	
Detour Length (km)	3			

Bridge Culvert Information								
Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	3600	1800	BP	29.3			RECTANGLE
Special Features								
Special Features Comment		2 cell concrete box.						

Utilities (Located at)			
Utility Attachments			
Telephone	South row.		Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to road allow 40 m east.
Vertical Alignment		8	8	
Roadway Width (m)	12.700			
Embankment		5	6	
Sideslope (__:1)	3.5			
(Height of Cover(m) : 2.5)				
Guardrail (Y/N)	Yes			South side only. Half with strong lap.
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		3	3	Rebar exposed, spalled - photo.
Collar		X	X	
Wingwalls		4	4	Separating @ joint to barrel and spalling, exposed rebar.
(Shape : FLARE)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	350			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	31-Aug-2012			West cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		3	3	Heavy scaling and spalling with exposed rebar at outlet.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	4	Hole at circumferential seam at base of common wall 400 X 500 at outlet
Separation (mm)	20			
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
Barrel General Rating		3	3	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date		31-Aug-2012		East cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)		0		
Percent Sag				
Sidewall		3	3	(Hole in wall to other cell @ 1/2 L. 26Feb2009); below water level. Cracking horizontal & vertical, damage to lower 1/3 of wall; exposed rebar. Below water level. Spall at base of D/S common wall (photo).
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)		0		
Percent Deflection				
Floor		N	N	Dirt covered.
Bulge (mm)		0		
Measured At Ring No.				
Abrasion (Y/N)		No		
Circumferential Seams		4	4	Spalls at lower seams.
Separation (mm)		20		
Longitudinal Seams		X	X	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
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): 1800, Rise (mm): 1800, Type: BP, Cell Sequence: 2)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		3	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		3	3	Severe scaling and spalling with exposed rebar.
Collar		X	X	
Wingwalls		4	4	Spalled @ top corner & waterline.
(Shape : FLARE)				
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	350			
Scour Protection		6	6	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		3	3	
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)				No visible HWM
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	2012	Patch areas that have exposed rebar, 0.5m3 OH-V.								
OTHER ACTION	2012	Repair headwalls - 1.0m3 concrete.								
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.6/44.5	Est. Repl. Yr	2020	Maint. Req'd. (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	31-May-2014		Previous Inspection Date	26-Aug-2010						
Inspection Cycle (Default) (months)	21									
Comment										

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	2012	Patch areas that have exposed rebar, 0.5m3 OH-V.	Programmed	2013			
OTHER ACTION	2012	Repair headwalls - 1.0m3 concrete.	Programmed	2013			
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	33.3/33.3	Sufficiency Rating (Last/Now) (%)	44.6/44.5	Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments	Currently programmed for replacement in 2021			
Maintenance Reviewed By	Andrew Smikles		Date	19-Nov-2012	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	31-May-2014		Previous Inspection Date	26-Aug-2010			
Inspection Cycle (Default) (months)	21						
Comment							