Bridge Culvert Inspection

Bridge File Number	73207 -1 Bridge Culvert	Form Type	CUL1
Year Built	1953	Lot No.	4
Bridge or Town Name	ROSEDALE	Inspector Name	Owen Salava
Located Over	Tributary to RED DEER RIVER, 3.31, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	10:08 C1 9.108	Assistant Class	
Water Body Cl./Year		Inspection Date	01-Nov-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SW SEC 22 TWP 28 RGE 19 W4M	Data Entry Date	29-Nov-2011
Longitude, Latitude	-112:36:18, 51:24:15	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	14-Nov-2011
Contract Main. Area	CMA21	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	9.3 / 20 deg. (RHF)	Dept. Review Date	02-Dec-2011
AADT/Year	1,020 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	10		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1448	1600	SPE	63.7	152X51	2.8	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South ditch.	Gas	Crosses road over culvert.
Power	North side.	Municipal	
Others		Problem (Y/N)	Yes
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve @ both ends. Residence to NE.
Vertical Alignment		8	8	
Roadway Width (m)	9.300			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

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		4	4	Rust pitting & 12mm dia perforations in floor.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		6	6	Some sparce rock.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		6	6	
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): 1448, Rise (mm): 1600, Type: SPE**)				
Barrel Last Accessible Date	01-Nov-2011			Span 1525 x rise 1465 @ midspan.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	Stable at this time.
Measured Rise (mm)	1465			
Measured At Ring No.	12			
Sag (mm)	135			8.4%
Percent Sag	8			
Sidewall		7	7	
Measured Span (mm)	1525			
Measured At Ring No.	12			
Deflection (mm)	77			5.3%
Percent Deflection	5			
Floor		N	6	12mm perforation at floor of inlet bevel.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	
Separation (mm)	0			
Longitudinal Seams		5	5	Extension at D/S has missing bolts & nuts with poor nesting.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Stains at seams. Superficial rust on barrel floor. Corrosion pitting & small perforations @ bevels only. Alkali corrosion at roof and sidewall seams at extensions.
Corrosion By Soil (Y/N)	Yes			
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): 1448, Rise (mm): 1600, Type: SPE**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	At D/S end.
Icing (Y/N)	No			
Silting (Y/N)	Yes			
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		5	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	800			
Scour Protection		6	6	Class 2 rock lined ditch @ NW.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	6	
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	Banks cut @ 90 degree.
HWM (m below Top of Culvert)				No visible HWM.
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**52.1/52.2**	Est. Repl. Yr	2020	Maint. Reqd. (Y/N)	No

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	01-Aug-2013	Previous Inspection Date	11-Mar-2010		
Inspection Cycle (Default) (months)	21				
Comment					