Bridge Culvert Inspection

Bridge File Number	01439 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	4
Bridge or Town Name	BENTLEY	Inspector Name	Owen Salava
Located Over	RAINY CREEK, 3.78.6, WATERCRS-ST	Inspector Class	BR CLS A
Located On	12:06 C1 22.406	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	29-Aug-2012
Legal Land Location	SE SEC 26 TWP 40 RGE 2 W5M	Data Entry By	Marcia Chavez
Longitude, Latitude	-114:10:42, 52:27:54	Data Entry Date	17-Sep-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA18	Review Date	06-Sep-2012
Clear Roadway/Skew	9 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,230 / 2011 (A)	Dept. Review Date	18-Sep-2012
Road Classification	RAU-209-110	Follow-Up By	
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2226	SPE	54.9	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	Along South side of road.	Gas	50 m West of culvert
Power	3 wires 23 m North of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection 100m west.
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		8	8	North end measured.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

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)	300			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE**)				
Barrel Last Accessible Date	29-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2250			
Measured At Ring No.	8			
Sag (mm)	24			
Percent Sag	1			
Sidewall		6	6	2 small holes from construction in sidewall 1st plate on West side from outlet.
Measured Span (mm)	2010			
Measured At Ring No.	8			
Deflection (mm)	9			
Percent Deflection	1			
Floor		N	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
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)	No			
Coating		6	6	Minor soil staining at upper seams superficial.
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): 2019, Rise (mm): 2226, Type: SPE**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			0.2m silt accumulation starting 15m from outlet.
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream 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	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

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 unknown
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**70.4/70.4**	Est. Repl. Yr	2035	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	29-May-2014	Previous Inspection Date	25-Aug-2010		
Inspection Cycle (Default) (months)	21				
Comment					