Bridge Culvert Inspection

Bridge File Number	80851 -1 Bridge Culvert	Form Type	CUL1
Year Built	1985	Lot No.	4
Bridge or Town Name	BODO	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO EYEHILL CREEK, 4.2, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	899:08 C1 34.836	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Jun-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 17 TWP 37 RGE 1 W4M	Data Entry Date	28-Jun-2011
Longitude, Latitude	-110:06:18, 52:10:20	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	18-Jun-2011
Contract Main. Area	CMA22	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	12 /	Dept. Review Date	30-Jun-2011
AADT/Year	380 / 2010 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2019	2236	SPE	54.8	152X51	3.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South fence line.	Gas	
Power	South fence line - 3 lines OH.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Major intersection 300-350m E of pipe. No passing EB due to stop sign
Vertical Alignment		8	8	
Roadway Width (m)	9.700			
Embankment		N	7	Estimate 3.5m.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3.5**)				
Guardrail (Y/N)	No			
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		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		N	7	Some rock.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	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): 2236, Type: SPE**)				
Barrel Last Accessible Date	08-Jun-2011			Has been used as a cattlepass. Gate at S bevel.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	Rise at R2=2254=28mm Rise at R6=2270=44mm=2.0% Rise at R12=2269=43mm
Measured Rise (mm)	2270			
Measured At Ring No.	6			
Sag (mm)	44			
Percent Sag	2			
Sidewall		N	7	Span at R2=2005=14mm Span at R6=2000=19mm Span at R12=1998=21mm=1%
Measured Span (mm)	1998			
Measured At Ring No.	12			
Deflection (mm)	21			
Percent Deflection	1			
Floor		N	6	Partially covered by concrete.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	7	
Separation (mm)	0			
Longitudinal Seams		N	7	(50% improperly lapped) 01-Dec-2004
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 By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 2019, Rise (mm): 2236, Type: SPE**)				
Fish Passage Adequacy		X	X	
Baffle		N	X	
(Type :)				
Waterway Adequacy		N	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		Steel grate placed at opening to prevent cattle from entering pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	6	1 bolt missing from bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		N	4	With some rock.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	4	Cattel movement have caused erosion to the W side of the pipe. No action required at this time.
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		N	7	
Bank Stability		N	6	
HWM (m below Top of Culvert)				
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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) (%)	**55.6/77.8**	**Sufficiency Rating (Last/Now) (%)**	**70.8/74.2**	Est. Repl. Yr	2042	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Structure doubles as a cattlepass therefore rock riprap off outlet would be a hindrance. Plenty of riprap on location if needed.	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	Bryan Wai	Previous Assistant's Name			
Next Inspection Date	08-Sep-2014	Previous Inspection Date	27-Mar-2008		
Inspection Cycle (Default) (months)	39				
Comment					