Bridge Culvert Inspection

Bridge File Number	80849 -1 Bridge Culvert	Form Type	CUL1
Year Built	1970	Lot No.	1
Bridge or Town Name	BODO	Inspector Name	Jason Saly
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	899:08 C1 31.294	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	08-Jun-2011
Legal Land Location	SW SEC 4 TWP 37 RGE 1 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-110:05:49, 52:08:40	Data Entry Date	28-Jun-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA22	Review Date	18-Jun-2011
Clear Roadway/Skew	12 /	Dept. Reviewer Name	Chris Black
AADT/Year	380 / 2010 (A)	Dept. Review Date	30-Jun-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1828	MP	27.5	68X13	2.8	ROUND

Special Features	
Special Features Comment	

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				No							
Posted:	Lane	WB	On Bridge (m)		In Advance (Y/N)		Lane	EB	On Bridge (m)		In Advance (Y/N)
Remarks	Not required.										

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	3 lines OH 15m E. 3 lines (E/W) cross HWY899 200m S.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	200m South to TWP road 370.
Vertical Alignment		9	8	
Roadway Width (m)	9.700			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Squared off.
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
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): , Rise (mm): 1828, Type: MP**)				
Barrel Last Accessible Date	08-Jun-2011			Shape still has uniform curves and adequate arching capabilities.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		3	3	(13.1% sag. Estimated. 01-Dec-2004). (Min. 1510mm just E of 1st circ. seam to dirt. 26Mar2008). Rise at W end (from dirt)=1623mm Rise at midpt (from dirt)=1479mm=est. 250mm=13.6% Rise at E end=1791mm=37mm
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	250			
Percent Sag	14			
Sidewall		3	3	Span at W end=1833mm=15mm Span at midpt=2011mm=183mm=10% Span at E end=1856mm=28mm (12.4% deflection. 26Mar2008).
Measured Span (mm)	2011			
Measured At Ring No.				
Deflection (mm)	183			
Percent Deflection	10			
Floor		N	N	Dirt on the floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Separation at couplers; some dirt infiltration last joint from U/S. No action required at this time.
Separation (mm)	50			
Longitudinal Seams		7	7	Rivetted - except first section.
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)	Yes			
Longitudinal Stagger (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1828, Type: MP**)				
Coating		7	7	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
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		E		Gate across entrance.
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Squared off.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Well vegetated.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		7	7	Lacks any dirt on last 5m on East.
Roadway Surface		6	6	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	NONE			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		8	7	
Structure In Use (Y/N)	No			Fenced off at E end. Vegetation well-established, not likely being used.
Grade Separation General Rating		**6**	**6**	

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) (%)	**33.3/33.3**	**Sufficiency Rating (Last/Now) (%)**	**61.8/61.7**	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Since strutting is not an option, and if liner is not an option due to height, recommend replacing culvert in 2015, only if structure is in use.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)	N				
Proposed Action	2007.05.21 Revisit site again in two years to determine continued usage. Bridge Branch could determine if guardrails are required.				
Previous Inspector's Name	Bryan Wai	Previous Assistant's Name			
Next Inspection Date	08-Sep-2014	Previous Inspection Date	26-Mar-2008		
Inspection Cycle (Default) (months)	39				
Comment					

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REPAIR SEAMS						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**33.3/33.3**	**Sufficiency Rating (Last/Now) (%)**	**61.8/61.7**	Est. Repl. Yr	2015	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Since strutting is not an option, and if liner is not an option due to height, recommend replacing culvert in 2015, only if structure is in use.	Department Comments	Currently programmed in PMA for replacement in 2022. DA

Maintenance Reviewed By	Darron Ahlstedt	Date	28-May-2012	Estimated Total	0
Proposed Long-Term Strategy					
On 3-Year Program (Y/N)	N				
Proposed Action	2007.05.21 Revisit site again in two years to determine continued usage. Bridge Branch could determine if guardrails are required.				
Previous Inspector's Name	Bryan Wai	Previous Assistant's Name			
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Comment					