Bridge Culvert Inspection														
Bridge File Number 72818 -1 Bridge Culvert							Form Type			CUL1				
Year Built 1986							Lot No			3				
Bridge or Town Name DRUMHELLER						Inspec	tor Name		Owen Salava					
Located Over		TRIBU	TARY TO RED DEER RIVER, 3.44,					Inspector Class BR CLS A						
Located On			C1 30.870					ant Name						
Water Body Cl./		070.04	01 00.070					ant Class						
Navigabil. Cl./Ye								tion Date		26-Jan-2011				
Legal Land Loca		SW SE	C 18 TWP 29 R	RGE 20 W	/4M			ntry By		Marcia Chavez				
Longitude, Latitu			3:55, 51:28:47	COL ZO VV	-TIVI			ntry Date		04-Mar-2011				
Road Authority			Transportation	(ΔΙΤ)				ver Name		John O'Brien				
Contract Main. A		CMA21	· · · · · · · · · · · · · · · · · · ·	(/ (/ / /				eview Date 03-Feb-2011						
Clear Roadway/									Dept. Reviewer Name Chris Black					
AADT/Year			2009 (A)	000 (4)					Dept. Review Date		06-Mar-2011			
Road Classificat		RCU-2	· · ·					Follow-Up By						
Detour Length (I	km)	46												
Bridge Culvert		ation												
Number of Culve	erts		1											
Pipe #	Barrel		Span	Rise (or Dia.)		Туре		Length		Corr. Profile	Pl./Slab Thickness	Shape		
1	MAIN		-	2400		SP		37.2		152X51	3.0	ROUND		
Special Features				1 - 1 - 1			51 51.2			10000	1000	11100111		
Special Features		nent												
					Uti	ilities (L	ocated	at)						
Utility Attachmen		. ,							I					
Telephone	South	side.					Gas							
Power								Municipal Problem (Y/N) No						
Others							Proble	m (Y/N)	No					
Remarks				Δ.		sh Dage	l / Emb	ankment						
				A	Last	Now				tion				
Horizontal Align	ment				6	6	Explanation of Condition Located in two curves. Field entrance 20m W.							
Vertical Alignme					8	8	Located III two curves. I leid effication 2011 W.							
			10.100											
	,						ļ							
Embankment	4)				6	6	(Tensi above	(Tension crack 1/2 way down N slope above culvert. 27Feb2008).						
Sideslope (:			3.0				,							
(Height of Cov	/er(m) :	2)	lv.			N. H. A. Z. H. A.								
Guardrail (Y/N) Yes				_	N side	N side, part of road barrier.								
Approach Road / Embankment General Rating			6	6										
						Upstre	am Enc							
Culvert Component			Last	Now	Explanation of Condition									
Direction			S		SW									
End Treatment (Concrete, Steel, Others, None)														
Headwall			Х	Х										
Collar			Х	Х										
Wingwalls			Х	Х										
(Shape:)														
Cutoff Wall				X	X									

Culvert Component				Upstre	am End			
Bavel End	Culvert Component							
Heaving (mm)								
Invert Above Below Stream Bed BELOW Above Below Iso Show covered Show Foreign Iso Show covered Sho		0	-					
Above/Below (mm) 150								
Secur Protection 7					-			
(Type : RIP RAP) (Avg. Rock Size(mm) : 200) Securification Beavers (Y/N) No Upstream End General Rating 7 6 Bridge Culvert Barrel Culvert Component	· /	130	7	l N	Snow covered			
(Avg. Rock Size(mm) : 200)			1	14	Show covered.			
Scour/Erosion					-			
Beavers (Y/N)			7	T	(0)1/ (
Description	Scour/Erosion		'	IN IN	(Silt rences torn, fresh grading wasnes into pipe. 22Feb2008).			
Description	Beavers (Y/N)	No		_				
Culvert Component								
Culvert Component Last Now Explanation of Condition (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1, Primary Span, Location Code: MAIN, Span (mm): 2400, Type: SP) Isise (mm): 2400, Type: SP) Special Features Special Feature (Type:) Special Feature (Type:) (Type:) 7 7 Special Feature (Type:) 7 7 (Type:) 7 7 Roof (Type:) 8 4 Sag (mm) 10	Upstream End General Rating		7	6				
Culvert Component Last Now Explanation of Condition (Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1, Primary Span, Location Code: MAIN, Span (mm): 2400, Type: SP) Isise (mm): 2400, Type: SP) Special Features Special Feature (Type:) Special Feature (Type:) (Type:) 7 7 Special Feature (Type:) 7 7 (Type:) 7 7 Roof (Type:) 8 4 Sag (mm) 10			Di	des Or	least Dames			
Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm):	Culvort Companant							
Special Features Special Feature Special F		tion Codo: MAIN			· · ·			
Special Feature (Type :) Special Feature (Type			opan (mir	1).	, nise (IIIII). 2400, Type: SP)			
Special Feature	Barrel Last Accessible Date	26-Jan-2011						
Special Feature	Special Features							
Type : Special Feature								
Special Feature	·							
Roof								
Roof 7 7 7					-			
Measured Rise (mm) 2390				Ι				
Measured At Ring No.			7	7				
Sag (mm) 10 Percent Sag 0 Sidewall 6 6 Measured Span (mm) 2490 3.8% Measured At Ring No. 5 3.8% Deflection (mm) 90 3.8% Percent Deflection 4 4 Floor N 5 Silt/rock covered R5-9, max. 250mm deep. Bulge (mm) 0 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 8 8 Separation (mm) 0 0 Longitudinal Seams 8 8 Total No. of Cracked Rings 0 0 Total No. of Rings with Two Cracked Seams 0 0 Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Some alkaline on bolts. Coating 7 7 Some alkaline on bolts.	` ,							
Percent Sag								
Sidewall		10			_			
Measured Span (mm) 2490 Measured At Ring No. 5 Deflection (mm) 90 Percent Deflection 4 Floor N Bulge (mm) 0 Measured At Ring No. Silt/rock covered R5-9, max. 250mm deep. Abrasion (Y/N) No Circumferential Seams 8 Separation (mm) 0 Longitudinal Seams 8 Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams 0 Min. Remaining Steel Between Cracks (mm) Froper Lap (Y/N) Proper Lap (Y/N) Yes Coating 7 7 Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Percent Sag	0						
Measured At Ring No. 5 Deflection (mm) 90 Percent Deflection 4 Floor N 5 Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) Abrasion (Y/N) No Circumferential Seams 8 Separation (mm) 0 Longitudinal Seams 8 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) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Coating 7 7 Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Sidewall		6	6				
Deflection (mm) 90 3.8%	Measured Span (mm)	2490						
Percent Deflection 4 Floor N 5 Silt/rock covered R5-9, max. 250mm deep. Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 8 8 Separation (mm) 0 Longitudinal Seams 8 8 Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) Yes	Measured At Ring No.	5						
Percent Deflection 4 Floor N 5 Silt/rock covered R5-9, max. 250mm deep. Bulge (mm) 0 Measured At Ring No. Abrasion (Y/N) No Circumferential Seams 8 8 Separation (mm) 0 Longitudinal Seams 8 8 Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) Yes	Deflection (mm)	90			3.8%			
Bulge (mm) 0	Percent Deflection	4						
Bulge (mm) 0	Floor		N	5	Silt/rock covered R5-9, max, 250mm deep.			
Measured At Ring No. Abrasion (Y/N) No Circumferential Seams Separation (mm) Longitudinal Seams 8 8 Total No. of Cracked Rings O Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Proper Lap (Y/N) Coating Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) No No No No No No No No No		0			1			
Abrasion (Y/N) No Circumferential Seams 8 8 Separation (mm) 0 Longitudinal Seams 8 8 Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Coating 7 7 Some alkaline on bolts.								
Circumferential Seams Separation (mm) Longitudinal Seams 8 8 Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Proper Lap (Y/N) Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes 8 8 8 8 Separation (mm) 8 8 8 8 8 8 8 8 Separation (mm) 7 7 Some alkaline on bolts.		No						
Separation (mm) Longitudinal Seams 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 Total No. of Rings with Two Total No. of Rings wi			Ω	ρ				
Longitudinal Seams Total No. of Cracked Rings Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Coating 7 7 Some alkaline on bolts.		0	0	J				
Total No. of Cracked Rings 0 Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes		U						
Total No. of Rings with Two Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Longitudinal Stagger (Y/N) Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) Yes			8	8	-			
Cracked Seams Min. Remaining Steel Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes					-			
Between Cracks (mm) Proper Lap (Y/N) Yes Longitudinal Stagger (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Cracked Seams	U						
Longitudinal Stagger (Y/N) Yes Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Min. Remaining Steel Between Cracks (mm)							
Coating 7 7 Some alkaline on bolts. Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Proper Lap (Y/N)	Yes						
Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes	Longitudinal Stagger (Y/N)	Yes						
Corrosion By Soil (Y/N) No Corrosion By Water (Y/N) Yes			7	7	Some alkaline on bolts.			
Corrosion By Water (Y/N) Yes		No			1			
Ponding (Y/N) No					<u> </u>			

		Bric	lge Cu	lvert Barrel					
Culvert Component			Now	Explanation of Condition					
(Pipe # : 1, Primary Span, Locat	ion Code: MAIN, Spa	n (mm):	, Rise (mm): 2400, Type: SP)					
Fish Passage Adequacy		X	X						
Baffle		Х	Х						
(Type:)									
Waterway Adequacy		4	5						
Icing (Y/N)	No								
Silting (Y/N)	Yes								
Drift (Y/N)	No								
Barrel General Rating		6	6						
				ream End					
Culvert Component		Last Now		Explanation of Condition					
Direction		N		NE					
End Treatment (Concrete, Steel, Others, None)									
Headwall		X	X						
Collar		Х	Х						
Wingwalls		Х	Х						
(Shape:)									
Cutoff Wall		Х	X						
Bevel End		7	7	Dirt with grass & brush on outlet floor (photo).					
Heaving (mm)	0								
Invert Above/Below Stream Bed	ABOVE			1.0m drops short distance D/S to join					
Above/Below (mm)	1000			Red Deer River.					
Scour Protection		4 N		(Erosion on NE corner - photo. 27Feb2008). Snow covered.					
(Type :)									
(Avg. Rock Size(mm):)									
Scour/Erosion		4	N	Snow covered.					
Beavers (Y/N)	No								
Downstream End General Ratir	ng	4	4	GR carried forward from 27Feb2008.					
			Now	re Usage Explanation of Condition					
Channel (U/S and D/S)		Last	INOW	Explanation of Condition					
Alignment		7	7						
Bank Stability		4	4	Steep banks u/s & d/s.					
HWM (m below Top of Culvert)				HWM not visible.					
Drift (Y/N) No									
Channel Bottom AGGRADING Degrading/Aggrading				Approx 600mm depth of silting @ outlet.					
Beavers (Y/N) No									
(Fish Compensation Measure 1 :	NONE)								
(Fish Compensation Measure 2 :	NONE)								
Channel General Rating		4	4						

		Maintenance R	Recommendations				
Inspector Recommendations	Year	Inspector Comments	Department Con	nments	Target Year	Est. Cost	Cat #
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2011	Place 15CMS Class 1 riprap on D/S done.	S, if not yet				
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING	3						
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUT	OFF						
REPAIR SEAMS							
OTHER ACTION	2011	Clear dirt/brush from inside outlet.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/N (%)	low) 66.7/6	Sufficiency Rating (Last (%)	:/Now) 53.6/55.9	Est. Repl. Yr	2035 Maint. Re	eqd. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments				
Maintenance Reviewed By			Date		Estimated Total	al 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	26-Apr-2014		Previous Inspection Date	27-Feb-2008			
Inspection Cycle (Default) (months)	39						
Comment							