					Brida	e Culve	ert Insp	ection							
Bridge File Num	nber	13939 -	1 Bridge Culve	rt			Form 1			CUL1					
Year Built 1994						Lot No			4						
Bridge or Town Name MORRIN						Inspector Name			Owen Salava						
Located Over TRIBUTAR			ARY TO WEST MICHICHI CREEK,			Inspector Class			BR CLS A						
		3.35.2.4	, WATERCRS	-ST			Assistant Name								
Located On		9:06 C1	18.995				Assistant Class								
Water Body Cl./	Year							tion Date		02-Nov-2011					
Navigabil. Cl./Ye	ear						Data Entry By			Marcia Chavez					
Legal Land Loc	ation	SE SEC	2 TWP 31 RG	E 20 W4I	M	Data Entry Date				28-Nov-2011					
Longitude, Latit	ude		21, 51:37:14	14				ver Name		John O'Brien					
Road Authority			a Transportation (AIT)				Review Date			13-Nov-2011					
Contract Main.		CMA21					Dept. Reviewer Name			Andrew Smikle	es				
Clear Roadway	/Skew	14.1 / -2	20 deg. (LHF)				Dept. Review Date			28-Nov-2011					
AADT/Year							Follow	-Up By							
Road Classifica		RAU-21	3.4-120												
Detour Length (8													
Bridge Culvert															
Number of Culv			1	D: /	D : \	_				0 5 "	D. (O. 1				
Pipe #	Barrel	;	Span	n Rise (or I		Туре		Length		Corr. Profile	Pl./Slab Thickness	Shape			
1	MAIN		-	4610		SP		76.2		152X51	4.0,4.0,4.0	ROUND			
Special Feature															
Special Feature		ment													
•															
	ĺ				Uti	lities (L	ocated.	at)							
Utility Attachme															
Telephone West ditch, strung through pipe.						Gas									
Power	2 line OH 25m East of centerline.						Munici		_						
Others							Proble	m (Y/N)	No						
Remarks															
				A	T.	1		ankment	o n dit	ion					
Horizontal Align	ment				Last 7	Now 7	Explanation of Condition Farm access 50m NE. Land access 75m SW. Gentle curves located								
Vertical Alignme					7	7	North 8	& South. Sl	ight s	ag curve.	om ovv. demi	curves located			
Roadway Width			14.100			'									
Troadway Width			14.100												
Embankment					7	7									
Sideslope (:1)		3.0												
(Height of Cover(m): 5.8)															
Guardrail (Y/N) No															
Approach Road / Embankment General Rating				7	7										
Approach Road	u / Ellii	Jankiner	it General Kat	ing	1	'									
						Upstre	am End								
Culvert Compo	nent				Last	Now	Explar	ation of C	ondit	ion					
Direction					W										
End Treatment (Concrete, Steel, CONCRETE Others, None)															
Headwall			7	7	Narrow perpendicular cracks every 0.6m on headwall.										
Collar	Collar			7	7										
Wingwalls					Х	X									
(Shape:)															
Cutoff Wall					N	N	Subme	erged.							

			Heates	and End
Culvent Commonant				eam End
Culvert Component		Last 8	Now 8	Explanation of Condition
Bevel End	0	8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			_
Above/Below (mm)	600	-	Ι_	
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)		Τ	Τ_	
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
		Bri	dge <u>Cu</u>	ilvert Barrel
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Loca	tion Code: MAIN, Spa	an (mm	1):	, Rise (mm): 4610, Type: SP)
Barrel Last Accessible Date	02-Nov-2011			
Special Features				
Special Feature				
(Type:)				1
Special Feature				
(Type:)				
Roof		7	7	Could not measure rise due to ice.
Measured Rise (mm)		•		
Measured At Ring No.				
Sag (mm)				Fatire at 200
Percent Sag				Estimate 3%.
Sidewall		7	7	(4610 at mid span. 01/11/26)
Measured Span (mm)	4743	'	'	Difficult to measure for one person. Approx measurement: R5 =
Measured At Ring No.	12			4582mm, 28mm. There is a deflection in the North sidewall of ring 12.
Deflection (mm)	133			- ' - '
Percent Deflection	3			2.9%
Floor	3	N	N	Ice covered.
Bulge (mm)		IN	IN	ice covered.
Measured At Ring No.				_
Abrasion (Y/N)				1
		7	-	
Circumferential Seams	0	7	7	-
Separation (mm)	0		T -	
Longitudinal Seams		7	7	-
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		6	6	
Corrosion By Soil (Y/N)	No			Minor.
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Culvert Component			Bric	lge Cu	lvert Barrel					
Fish Passage Adequacy	Culvert Component			Now	Explanation of Condition					
Baffle	(Pipe #: 1, Primary Span, Locat	ion Code: MAIN, Spa	n (mm):	, Rise (mm): 4610, Type: SP)					
Waterway Adequacy	Fish Passage Adequacy		7	7						
Vaterway Adequacy	Baffle		Х	Х						
Coling (Y/N)	(Type :)									
Coling (Y/N)			8	8						
Sitting (Y/N)		No								
Drift (Y/N)	• • •	No								
Downstream End Culvert Component	-	No								
Culvert Component Last Now Explanation of Condition Direction E Image: Condition Image: Condition End Treatment (Concrete, Steel, Others, None) CONCRETE Image: Condition Image: Condition Collar 7 7 7 Narrow cracking every 0.4m. Wingwalls X X X (Shape:) Cutoff Wall N N Submerged. Bevol End 7 7 7 Heaving (mm) 0 Image: Condition Image: Condition Scour Protection 7 7 7 Chaper (Park) (Aya, Rock Size(mm): 600 Image: Condition Image: Condition Scour/Erosion N 7 7 7 Geavers (Y/N) No Image: Condition Image: Condition Chaper (I/N) and D/S) Image: Condition Image: Condition Chaper (I/N) and D/S) Image: Condition Image: Condition Image: Condition Image: Condition Image: Condition Image: Condition Image: Condition <td></td> <td></td> <td>7</td> <td>7</td> <td></td>			7	7						
Culvert Component Last Now Explanation of Condition Direction E Image: Condition Image: Condition End Treatment (Concrete, Steel, Others, None) CONCRETE 7 7 Collar 7 7 7 Narrow cracking every 0.4m. Wingwalls X X X (Shape:) Cutoff Wall N N Submerged. Bevel End 7 7 7 Heaving (mm) 0 Fraction Fraction Scour Protection 7 7 7 Above/Below (mm) 600 Fraction Fraction Scour/Erosion N 7 7 Downstream End General Rating 7 7 7 Downstream End General Rating 7 7 7 Alignment 6 6 6 S curve U/S. Bank Stability 6 6 6 Curve U/S. Bank Stability No Fig. Compensation Measure 1: NONE) Fig. None. Fi			D	ownstr	ream End					
Direction	Culvert Component									
Others, None) Headwall 7 7 7 Collar 7 7 Narrow cracking every 0.4m. Wingwalls (Shape:) Cutoff Wall N N Submerged. Bevel End				<u>'</u>						
Collar	End Treatment (Concrete, Steel, Others, None)	CONCRETE								
Wingwalls	Headwall		7	7						
Cutoff Wall	Collar		7	7	Narrow cracking every 0.4m.					
Cutoff Wall N N Submerged. Bevel End 7 7 Heaving (mm) 0 Invert Above/Below Stream Bed BELOW Above/Below (mm) 600 Scour/Protection 7 7 (Type : RIP RAP) (Avg. Rock Size(mm) : 600) Scour/Erosion N 7 Scour/Erosion No T T Downstream End General Rating 7 7 T Structure Usage Last Now Explanation of Condition Channel (U/S and D/S) Alignment 6 6 S curve U/S. Bank Stability 6 6 Figure Usage HWM (m below Top of Culvert) HWM not visible. Drift (Y/N) No Unknown. Beavers (Y/N) No Unknown. (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Wingwalls		Х	X						
Bevel End	(Shape :)									
Heaving (mm)	Cutoff Wall		N	N	Submerged.					
Invert Above/Below Stream Bed	Bevel End		7	7						
Above/Below (mm) 600	Heaving (mm)	0								
Scour Protection	Invert Above/Below Stream Bed	BELOW								
Scour Protection	Above/Below (mm)	600								
(Avg. Rock Size(mm) : 600) Scour/Erosion N 7	Scour Protection		7	7						
Scour/Erosion	(Type : RIP RAP)									
Beavers (Y/N)	(Avg. Rock Size(mm) : 600)									
Downstream End General Rating To T Structure Usage Last Now Explanation of Condition Channel (U/S and D/S) Alignment 6 6 5 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert) Drift (Y/N) No Channel Bottom Degrading/Aggrading Beavers (Y/N) (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Scour/Erosion		N	7						
Structure Usage Last Now Explanation of Condition Channel (U/S and D/S) Alignment 6 6 6 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert) HWM not visible. Drift (Y/N) No Channel Bottom Degrading/Aggrading Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Beavers (Y/N)	No								
Last Now Explanation of Condition Channel (U/S and D/S) Alignment 6 6 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert) HWM not visible. Drift (Y/N) No Unknown. Channel Bottom Degrading/Aggrading Unknown. Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Downstream End General Ratir	ıg	7	7						
Last Now Explanation of Condition Channel (U/S and D/S) Alignment 6 6 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert) HWM not visible. Drift (Y/N) No Unknown. Channel Bottom Degrading/Aggrading Unknown. Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)			S	Structu	re Usane					
Channel (U/S and D/S) Alignment 6 6 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert)										
Alignment 6 6 S curve U/S. Bank Stability 6 6 HWM (m below Top of Culvert) HWM not visible. Drift (Y/N) No Channel Bottom Degrading/Aggrading Unknown. Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Channel (U/S and D/S)			1						
HWM (m below Top of Culvert) Drift (Y/N) Channel Bottom Degrading/Aggrading Beavers (Y/N) (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)			6	6	S curve U/S.					
Drift (Y/N) No Channel Bottom Degrading/Aggrading Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)			6	6						
Channel Bottom Degrading/Aggrading Beavers (Y/N) (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	HWM (m below Top of Culvert)				HWM not visible.					
Degrading/Aggrading Beavers (Y/N) No (Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)	Drift (Y/N)	No								
(Fish Compensation Measure 1 : NONE) (Fish Compensation Measure 2 : NONE)					Unknown.					
(Fish Compensation Measure 2 : NONE)	Beavers (Y/N)	No								
	(Fish Compensation Measure 1 : NONE)									
Channel General Rating 6 6	(Fish Compensation Measure 2 :	NONE)								
	Channel General Rating		6	6						

SHOTCRETE REPAIRS PLACE ADDITIONAL RIP RAP REMOVE DRIFT ACCUMULATION INSTALL CONCRETE/STEEL LINING INSTALL CONCRETE/STEEL LINING INSTALL STRUTS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION Structural Condition Rating (Last/Now) T7.8/T7.8 Sufficiency Rating (Last/Now) Special Comments for Next Inspection Maintenance Reviewed By Date Estimated Total Previous Inspector's Name Jason Saly Previous Assistant's Name				Maintenance Re	command	ations						
SHOTCRETE REPAIRS PLACE ADDITIONAL RIP RAP REMOVE DRIFT ACCUMULATION INSTALL CONCRETE/STEEL LINING INSTALL STRUTS INSTALL STRUTS INSTALL STRUTS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS OTHER ACTION Structural Condition Rating (Last/Now) (%) Special Comments for Next Inspection Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date 02-Aug-2013 Previous Inspection Date Inspection Cycle (Default) (months) 21	Inspector Recommendations	Vear	Inspector C		Commend		Target Vear	Est Cost	Cat #			
PLACE ADDITIONAL RIP RAP REMOVE DRIFT ACCUMULATION INSTALL CONCRETE/STEEL LINING INSTALL STRUTS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS OTHER ACTION OTHER A	·	i eai	inspector C	JOHIIII CHIS		Department Con	IIIIeiiis			Target Tear	ESI. COSI	Cal #
REMOVE DRIFT ACCUMULATION INSTALL CONCRETE/STEEL LINING INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL STRUTS INSTALL STRUTS INSTALL SEAMS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL SEAMS INSTALL SEAMS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL SEAMS INSTALL SEAMS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS INSTALL SEAMS												
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INSTALL STRUTS INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS OTHER ACTION OTHER ACTIO		2										
INSTALL CONCRETE COLLAR/CUTOFF REPAIR SEAMS OTHER ACTION Structural Condition Rating (Last/Now) (%) Special Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date Jason Saly Previous Inspection Date 02-Aug-2013 Previous Inspection Date 11-Mar-2010 Inspection Cycle (Default) (months) 21												
REPAIR SEAMS OTHER ACTION Structural Condition Rating (Last/Now) (%) Special Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date Jason Saly Previous Assistant's Name Next Inspection Date O2-Aug-2013 Previous Inspection Date O1-Aug-2013 Previous Inspection Date O2-Aug-2013 Previous Inspection Date O1-Aug-2013 Previous Inspection Date		OFF										
OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION Structural Condition Rating (Last/Now) (%) Special Comments for Next Inspection Next Inspection Previous Inspection Pate Department OTHER ACTION T7.8/77.8 Sufficiency Rating (Last/Now) (%) T7.5/79.6 Est. Repl. Yr 2063 Maint. Reqd. (Y/N) No No Department Comments Estimated Total O Previous Assistant's Name Next Inspection Date Department OTHER ACTION Department OTHER ACTION T7.5/79.6 Est. Repl. Yr 2063 Maint. Reqd. (Y/N) No Previous Assistant's Name Next Inspection Date Department OTHER ACTION Department OTHER ACTION T7.5/79.6 Department OTHER ACTION Department OTHER ACTION T7.5/79.6 Department OTHER ACTION T7.5/79.6 Department OTHER ACTION Department OTHER ACTION T7.5/79.6 Department OTHER ACTION T7.5/79.6 Department OTHER ACTION T7.5/79.6 Department OTHER ACTION T7.5/79.6 Est. Repl. Yr 2063 Maint. Reqd. (Y/N) No T7.5/79.6 Department OTHER ACTION TO STATE OF TAKEN OF		011										
OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION OTHER ACTION Structural Condition Rating (Last/Now) (%) Special Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date O2-Aug-2013 Previous Inspection Date O3-Aug-2013 Previous Inspection Date O4-Aug-2016 O4-Aug-2016 O5-Aug-2017 O7.5/79.6 Est. Repl. Yr 2063 Maint. Reqd. (Y/N) No Postimated Total O Estimated Total O Previous Assistant's Name Previous Inspection Date O2-Aug-2013 Previous Inspection Date O3-Aug-2016 Inspection Cycle (Default) (months) 21												
OTHER ACTION OTHER ACTION Structural Condition Rating (Last/Now) (%) T7.8/77.8 Sufficiency Rating (Last/Now) (%) Special Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date Department Comments Department Comments Estimated Total O Frevious Assistant's Name Previous Inspection Date Inspection Cycle (Default) (months) 21												
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Special Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date O2-Aug-2013 Inspection Cycle (Default) (months) Date Estimated Total O Previous Assistant's Name 11-Mar-2010 11-Mar-2010	OTHER ACTION											
Comments for Next Inspection Maintenance Reviewed By Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date 02-Aug-2013 Previous Inspection Date 02-Aug-2013 Previous Inspection Date 11-Mar-2010 Inspection Cycle (Default) (months) 21	Structural Condition Rating (Last/N (%)	ow) 77.8/7	7.8 S	ufficiency Rating (Last/N	low)	77.5/79.6	Est. Re	epl. Yr	2063	Maint. Re	eqd. (Y/N)	No
Proposed Long-Term Strategy On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date O2-Aug-2013 Inspection Cycle (Default) (months) D3-Aug-2013 Previous Inspection Date Previous Inspection Date 11-Mar-2010	Special Comments for Next Inspection					Department Comments						
On 3-Year Program (Y/N) Proposed Action Previous Inspector's Name Next Inspection Date O2-Aug-2013 Inspection Cycle (Default) (months) 21	Maintenance Reviewed By					Date				Estimated Tota	I 0	
Previous Inspector's Name Previous Inspection Date Next Inspection Date O2-Aug-2013 Previous Assistant's Name Previous Inspection Date 11-Mar-2010 Inspection Cycle (Default) (months) 21	Proposed Long-Term Strategy											
Previous Inspector's Name Jason Saly Previous Assistant's Name Next Inspection Date O2-Aug-2013 Previous Inspection Date 11-Mar-2010 Inspection Cycle (Default) (months) 21	On 3-Year Program (Y/N)											
Next Inspection Date 02-Aug-2013 Previous Inspection Date 11-Mar-2010 Inspection Cycle (Default) (months) 21	Proposed Action											
Inspection Cycle (Default) (months) 21	Previous Inspector's Name	Jason Saly			Previous	Assistant's Name						
Inspection Cycle (Default) (months) 21	Next Inspection Date	02-Aug-2013			Previous	Inspection Date	11-	-Mar-2010				
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