Bridge Culvert Inspection

Bridge File Number	70872 -1 Bridge Culvert	Form Type	CULE
Year Built	1954	Lot No.	2
Bridge or Town Name	OBED	Inspector Name	Shane Hall
Located Over	ROOSTER CREEK, 8.11.126, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	16:04 R1 2.059;16:04 L1 2.072	Assistant Class	
Water Body Cl./Year		Inspection Date	11-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 1 TWP 53 RGE 23 W5M	Data Entry Date	28-Aug-2012
Longitude, Latitude	-117:14:41, 53:33:01	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	27-Aug-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	25.1 / -45 deg. (LHF)	Dept. Review Date	30-Aug-2012
AADT/Year	6,080 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Bridge Culvert Information

Number of Culverts	1

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1524	MP	61.9	68X13	3.0	ROUND
1	D/S	-	1800	MP	70	125X26	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 lines O/H North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	File tag in place.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	On horizontal superelevated curve.
Vertical Alignment		7	7	
Roadway Width (m)	25.100			12.4 EB, 12.9 WB.
Embankment		5	5	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **5**)				
Guardrail (Y/N)	Yes			Guardrail on North WBL only.
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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 :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Cutoff Wall		X	X	
Bevel End		3	3	Bevel separated from barrel by 300mm (photo).
Heaving (mm)	500			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		4	4	Rock riprap loosely scattered around bevel & slope. Inadequate protection.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		4	4	
Beavers (Y/N)	No			
Upstream End General Rating		**3**	**3**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Barrel Last Accessible Date	11-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		4	4	5m u/s from poured joint.
Measured Rise (mm)	1363			
Measured At Ring No.				
Sag (mm)	161			
Percent Sag	10			
Sidewall		5	5	5m from u/s.
Measured Span (mm)	1630			
Measured At Ring No.				
Deflection (mm)	128			
Percent Deflection	8			
Floor		5	5	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		3	3	u/s bevel separated from barrel.
Separation (mm)	300			
Longitudinal Seams		5	5	Riveted seams.
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	5	Superficial rust lower 1/4.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	4	Separated bevel, likely prevents passage during low flows.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	Rock/gravel throughout barrel.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 1800, Type: MP**)				
Barrel Last Accessible Date	11-Aug-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	5	100mm deep dent likely at construction 15m from d/s. 30m from d/s. Roof flattening at this location.-photo
Measured Rise (mm)	1780			
Measured At Ring No.				
Sag (mm)	20			
Percent Sag	1			
Sidewall		7	7	30m from d/s.
Measured Span (mm)	1820			
Measured At Ring No.				
Deflection (mm)	20			
Percent Deflection	1			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	35			
Longitudinal Seams		X	X	
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		6	6	Minor superficial rust lower 1/4.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 1800, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**7**	**5**	

Downstream 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	
Bevel End		7	6	400mm diameter rock in d/s bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**6**	

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 not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
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	2013	Reinstall U/S bevel section. Remove completely and add additional rock.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**50.9/43.7**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

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	Eric Carcoux	Previous Assistant's Name	
Next Inspection Date	11-May-2014	Previous Inspection Date	15-Sep-2010
Inspection Cycle (Default) (months)	21		
Comment			