Bridge Culvert Inspection

Bridge File Number	08814 -2 Bridge Culvert	Form Type	CUL1
Year Built	2011	Lot No.	4
Bridge or Town Name	EDSON	Inspector Name	Shane Hall
Located Over	SUNDANCE CREEK, 8.11.107.30, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	47:06 C1 56.719	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Oct-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 4 TWP 53 RGE 18 W5M	Data Entry Date	14-Nov-2012
Longitude, Latitude	-116:35:21, 53:33:17	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	12-Nov-2012
Contract Main. Area	CMA13	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	9.1 / -5 deg. (LHF)	Dept. Review Date	20-Nov-2012
AADT/Year	1,020 / 2011 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	7425	SP	93.6	400X150	6.0	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	4 lines buried in West ditch	Gas	60m North, 100m East
Power	100m West, 60m North	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Culvert located at bottom of sag curve, good sight distances. No passing NB.
Vertical Alignment		7	7	
Roadway Width (m)	9.100			
Embankment		9	9	Measured on West side 7.2m
Sideslope (__:1)	4.0			
(Height of Cover(m) : **7.2**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	9	
Collar		9	9	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		9	9	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	2150			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Upstream End General Rating		**9**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 7425, Type: SP**)				
Barrel Last Accessible Date	15-Oct-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Downward distortion. 12m from u/s end. Surveyed on Oct-01-2011 Rise measurement not possible due to silt/gravel on floor.
Measured Rise (mm)	7244			
Measured At Ring No.	4			
Sag (mm)	181			
Percent Sag	2			
Sidewall		8	8	Inward deflection 9m from d/s Surveyed on Oct-01-2011
Measured Span (mm)	7356			
Measured At Ring No.	64			
Deflection (mm)	69			
Percent Deflection	1			
Floor		9	N	Floor not visible - Covered by silt/cobble.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		9	9	
Separation (mm)				
Longitudinal Seams		9	9	1N
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)	Yes			
Coating		9	9	
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): , Rise (mm): 7425, Type: SP**)				
Fish Passage Adequacy		9	9	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	9	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		X	9	
Collar		9	9	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		9	N	
Bevel End		9	9	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1650			
Scour Protection		9	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **800**)				
Scour/Erosion		9	9	
Beavers (Y/N)	No			
Downstream End General Rating		**9**	**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	Smooth 90 deg transition from channel to culvert.
Bank Stability		9	9	
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**)				Willow planting d/s only. Rock filled culvert (Class 1m, clean 6-80 & few Class 1)
(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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**92.5/92.5**	Est. Repl. Yr	2061	Maint. Reqd. (Y/N)	No

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	Anne-Frederique Lavallee	Previous Assistant's Name	
Next Inspection Date	15-Jul-2014	Previous Inspection Date	17-Oct-2011
Inspection Cycle (Default) (months)	21		
Comment			