Bridge Culvert Inspection

Bridge File Number	08129 -1 Bridge Culvert	Form Type	CUL1
Year Built	1977	Lot No.	1
Bridge or Town Name	EDSON	Inspector Name	Wade Nanninga
Located Over	BENCH CREEK, 8.11.107.25.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	748:04 C1 3.828	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Apr-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 31 TWP 53 RGE 16 W5M	Data Entry Date	01-May-2013
Longitude, Latitude	-116:20:46, 53:37:19	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Apr-2013
Contract Main. Area	CMA13	Dept. Reviewer Name	
Clear Roadway/Skew	8.6 / -5 deg. (LHF)	Dept. Review Date	
AADT/Year	1,320 / 2012 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	38		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3360	SP	77.4	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	1 wire W row	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field access & farm entrances each way. Crest curves with no passing to NB.
Vertical Alignment		6	6	
Roadway Width (m)	8.600			
Embankment		7	7	8m berm each side near midpoint of embankment.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
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		N	6	
Heaving (mm)	300			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	4	
(Type : **NONE**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	4	Scoured around bevel end.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Barrel Last Accessible Date	16-Feb-1989			1/2 full ice - ice to thin to enter, viewed from ends shape looks good. (Estimated sag & deflection.) 1998/05/06
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	(4.5% est.) 1998/05/06
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	150			
Percent Sag				
Sidewall		N	N	(4.5% est.) 1998/05/06
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	150			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N stagger.
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3360, Type: SP**)				
Ponding (Y/N)	Yes			1.0 m deep.
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	5	Ice to 0.3m from crown-Nov, 2009
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	GR previously unknown

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	N	urried in snow/ice
Heaving (mm)	300			
Invert Above/Below Stream Bed				
Above/Below (mm)				
Scour Protection		N	N	
(Type :)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			Can't see beaver dams.
Downstream End General Rating		**5**	**5**	G.R. carried over.

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	5	Sharp curve both directions.
Bank Stability		6	6	
HWM (m below Top of Culvert)	0.3			WL u/s Nov 20, 2009
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**5**	

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	Barrel last acceseed in 1989. Consider Level 2 inspection to dewater and inspect.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**50.4/50.0**	Est. Repl. Yr	2028	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	Kris Bosters	Previous Assistant's Name	
Next Inspection Date	16-Jul-2016	Previous Inspection Date	20-Nov-2009
Inspection Cycle (Default) (months)	39		
Comment			