Bridge Culvert Inspection

Bridge File Number	76533 -1 Bridge Culvert	Form Type	CUL1
Year Built	1966	Lot No.	2
Bridge or Town Name	VEGREVILLE	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO VERMILION RIVER, 6.5.34, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	857:04 C1 1.099	Assistant Class	
Water Body Cl./Year		Inspection Date	14-Jul-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 19 TWP 52 RGE 14 W4M	Data Entry Date	12-Aug-2011
Longitude, Latitude	-112:03:58, 53:30:35	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	20-Jul-2011
Contract Main. Area	CMA14	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	9.8 / 15 deg. (RHF)	Dept. Review Date	29-Aug-2011
AADT/Year	2,390 / 2010 (A)	Follow-Up By	
Road Classification	RCU-210-110		
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1829	1118	FP	21.9	68X13	3.5	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	East ditch.	Gas	
Power	17m E of CL. 6 wires	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	80km/h zone.
Vertical Alignment		7	7	
Roadway Width (m)	13.000			Curb to curb. Concrete curb & gutter system.
Embankment		7	7	
Sideslope (__:1)	6.0			
(Height of Cover(m) : **1.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	4	Bevel section heaved. Water flowing into pipe under bevel end.
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	0			
Scour Protection		5	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Barrel Last Accessible Date	14-Jul-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	
Measured Rise (mm)	1050			
Measured At Ring No.	4			
Sag (mm)	68			6.1%
Percent Sag	6			
Sidewall		N	4	Coating governs.
Measured Span (mm)	1905			
Measured At Ring No.	4			
Deflection (mm)	76			4.1%.
Percent Deflection	4			
Floor		N	5	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		X	6	Rivetted.
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		N	4	Extensive corrosion on floor & sidewalls scaled. Perforation in haunch at u/s bevel.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1829, Rise (mm): 1118, Type: FP**)				
Fish Passage Adequacy		X	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Storm sewer outfall 6m S.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	5	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	20			
Scour Protection		N	5	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		N	5	
Beavers (Y/N)	No			
Downstream End General Rating		**N**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	6	40 deg. turn 5m u/s.
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.3			
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Unknown.
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**6**	

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	2012	Affix bevel end to pipe to stop flow under bevel floor.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**77.8/44.4**	**Sufficiency Rating (Last/Now) (%)**	**68.2/51.4**	Est. Repl. Yr	2018	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	Glen Smith	Previous Assistant's Name	
Next Inspection Date	14-Oct-2014	Previous Inspection Date	08-Jun-2007
Inspection Cycle (Default) (months)	39		
Comment			