

Bridge Culvert Inspection			
Bridge File Number	78012 -1 Bridge Culvert	Form Type	CUL1
Year Built	1982	Lot No.	3
Bridge or Town Name	VERMILION	Inspector Name	Owen Salava
Located Over	TRIBUTARY TO GRIZZLY BEAR CREEK, 5.11.2, WATERCRS-ST	Inspector Class	BR CLS A
Located On	619:06 C1 8.973	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	07-Nov-2012
Legal Land Location	SE SEC 25 TWP 48 RGE 6 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-110:44:55, 53:09:41	Data Entry Date	21-Nov-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA15	Review Date	15-Nov-2012
Clear Roadway/Skew	8.9 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	510 / 2011 (A)	Dept. Review Date	26-Nov-2012
Road Classification	RCU-209-110	Follow-Up By	
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	-	1800	MP	76	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	In sag curve, limited sight distance East. No passing Eastbound. Numerous farm entrances to West.
Vertical Alignment		6	6	
Roadway Width (m)	8.900			
Embankment		8	8	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 7.3)				
Guardrail (Y/N)	Yes			South shoulder only.
Approach Road / Embankment General Rating		6	6	

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 :)				
Cutoff Wall		X	X	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		7	7	Poplar restricting entry - photo.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		N	N	Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1800, Type: MP)				
Barrel Last Accessible Date	07-Nov-2012			1885 rise, 1741 span. Possible 5% VE. Culvert shape is out of round, measurements consistent with 5% VE.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	Ring 6 out of round. 20 degree off plumb. Top going to West.
Measured Rise (mm)	1710			
Measured At Ring No.	6			
Sag (mm)	90			
Percent Sag	5			
Sidewall		6	6	Measured @ 45% angle.
Measured Span (mm)	1870			
Measured At Ring No.	6			
Deflection (mm)	70			3.9%
Percent Deflection	3			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
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 along the floor.
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): 1800, Type: MP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	(Perched @ D/S - photo. 10Sep2006) - Snow covered.
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		5	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	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	300			
Scour Protection		N	N	(Riprap is on S/B. Bevel is perched & unsupported for 700mm - photo. 10Sep2006) - Snow covered.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 450)				
Scour/Erosion		N	N	(Scour to NE - photo. 10/Sep/2006).
Beavers (Y/N)	No			
Downstream End General Rating		4	4	G.R. carried over since 10Sep2006.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		5	5	
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	2013	5m3 class 1 @ D/S, if not yet done.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Remove poplars around inlet.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	51.7/51.4	Est. Repl. Yr	2033	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor d/s erosion with photo looking u/s.		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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	07-Feb-2016		Previous Inspection Date	27-Jan-2010			
Inspection Cycle (Default) (months)	39						
Comment							