Bridge Culvert Inspection

Bridge File Number	73293 -1 Bridge Culvert	Form Type	CUL1
Year Built	1958	Lot No.	1
Bridge or Town Name	JARVIE	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO PEMBINA RIVER, 8.11.84.6, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	44:02 C1 41.796	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Apr-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 36 TWP 63 RGE 1 W5M	Data Entry Date	22-Apr-2013
Longitude, Latitude	-114:00:12, 54:29:42	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	21-Apr-2013
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11.3 /	Dept. Review Date	23-Apr-2013
AADT/Year	2,250 / 2012 (A)	Follow-Up By	
Road Classification	RAU-210-110		
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1500	MP	40.8	68X13		ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	4 lines power East.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag on u/s end.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Crest curve to the south, limited sight distance. No passing SB.
Vertical Alignment		6	6	
Roadway Width (m)	11.300			
Embankment		5	4	Sideslope flattens on bottom 1/2.-stable Settlement/sharp drop off East paved shoulder, settlement of sideslope over pipe.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.2**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		Inlet submerged
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	N	Under water
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		5	N	Rock migrating into barrel.-10-Sep-2009
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	Gr carried fwd from July, 2011

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1500, Type: MP**)				
Barrel Last Accessible Date	27-Oct-2002			Water to deep to access.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	To many rocks to measure. Est similar to deflection.-10-Sep-2009
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	270			
Percent Sag				
Sidewall		N	N	Measure on upstream 1/3 of pipe. Deflection maybe worse closer to c/l but cannot access.-10-Sep-2009
Measured Span (mm)	1750			
Measured At Ring No.				
Deflection (mm)	225			
Percent Deflection	15			
Floor		N	N	Rock riprap washed & settled into barrel. -10-Sep-2009
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	30mm fill exposed on coupler at u/s end.-10-Sep-2009 Loosing all 2 & 3rd seam from u/s end. - photo
Separation (mm)	132			
Longitudinal Seams		N	N	
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		N	N	Lower 1/2.-10-Sep-2009
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): , Rise (mm): 1500, Type: MP**)				
Fish Passage Adequacy		X	X	
Baffle		N	N	
(Type :)				
Waterway Adequacy		5	4	Iced in April/2013
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**2**	**2**	GR carried fwd from 10-Sep-2009

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		7	N	Under water/ice
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	250			
Scour Protection		7	N	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	GR carried fwd from July, 2011

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Turns sharply into pipe U/S from ditch. Ditch and field srainage.
Bank Stability		7	7	
HWM (m below Top of Culvert)				Ice to crown, April/2013
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				stable
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**22.2/22.2**	**Sufficiency Rating (Last/Now) (%)**	**39.9/36.7**	Est. Repl. Yr	2013	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection	Low rating advisory sent to AT, 15-Sep-2009, resubmitted 15-Jul-2011, resubmitted 18-Apr-2013. Pipe is being repalced in 2013.	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	16-Jan-2015	Previous Inspection Date	13-Jul-2011		
Inspection Cycle (Default) (months)	21				
Comment					