Bridge Culvert Inspection

Bridge File Number	78865 -1 Bridge Culvert	Form Type	CUL1
Year Built	1977	Lot No.	4
Bridge or Town Name	RICHDALE	Inspector Name	Jason Saly
Located Over	TRIBUTARY TO BERRY CREEK, 3.14.13, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	586:01 C1 21.173	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Jun-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	SE SEC 26 TWP 32 RGE 12 W4M	Data Entry Date	28-Jun-2011
Longitude, Latitude	-111:35:17, 51:45:55	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	18-Jun-2011
Contract Main. Area	CMA21	Dept. Reviewer Name	Chris Black
Clear Roadway/Skew	8.5 / 15 deg. (RHF)	Dept. Review Date	30-Jun-2011
AADT/Year	130 / 2010 (A)	Follow-Up By	
Road Classification	RCU-209-110		
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	-	2100	MP	21.9	68X13	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	South ditch.	Gas	
Power	North r/w. 1 line, 1 line crossing road on E.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	T-intersection 50m SW. 800mm pipe X approx. 20m long located 30m W of this culvert.
Vertical Alignment		8	8	
Roadway Width (m)	9.600			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		First section of pipe 7.75m long with 2.23m long bevel section.
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		5	6	Superficial corrosion lower half.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	580			
Scour Protection		7	7	Some rock.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2100, Type: MP**)				
Barrel Last Accessible Date	25-Mar-2008			Water 1.1m deep. Viewed from ends; no problems noted.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	N	
Measured Rise (mm)	2134			
Measured At Ring No.	2			
Sag (mm)	34			(1.6%. 25Mar2008).
Percent Sag	1			
Sidewall		6	N	
Measured Span (mm)	2168			
Measured At Ring No.	2			
Deflection (mm)	68			(3.2%. 25Mar2008).
Percent Deflection	3			
Floor		N	N	Deep water.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	N	(First coupler (seam) from D/S end sealed off with tar. 25Mar2008).
Separation (mm)	65			
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		4	4	Extensive rust lower half.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2100, Type: MP**)				
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**N**	GR was 6 from 25Mar2008.

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		(Last length 7.75m long with 3.0m long bevel end section. 25Mar2008).
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	6	Superficial corrosion lower 1/2.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Some rock.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
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						
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) (%)	**66.7/55.6**	**Sufficiency Rating (Last/Now) (%)**	**69.1/66.0**	Est. Repl. Yr	2029	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	Bryan Wai	Previous Assistant's Name			
Next Inspection Date	08-Sep-2014	Previous Inspection Date	25-Mar-2008		
Inspection Cycle (Default) (months)	39				
Comment					