Bridge Culvert Inspection

Bridge File Number	79129 -1 Bridge Culvert	Form Type	CUL1
Year Built	1980	Lot No.	4
Bridge or Town Name	BARRHEAD	Inspector Name	Melanie Johnson
Located Over	TRIBUTARY TO PADDLE RIVER, 8.11.84.30.15, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	18:08 C1 1.614	Assistant Class	
Water Body Cl./Year		Inspection Date	27-Aug-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 11 TWP 59 RGE 6 W5M	Data Entry Date	19-Sep-2011
Longitude, Latitude	-114:48:07, 54:04:46	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	07-Sep-2011
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	10.2 / 45 deg. (RHF)	Dept. Review Date	28-Sep-2011
AADT/Year	880 / 2010 (A)	Follow-Up By	
Road Classification	RAU-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	-		SPE	70.1	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North r/w.	Gas	30 m northwest.
Power	2 lines OH North r/w & 2 lines OH crossing.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Crest curve to distant east.
Vertical Alignment		7	7	Pipe @ 45 degree angle through intersection, approx 10 m berm each side.
Roadway Width (m)	10.200			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **2.6**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		Northwest
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		6	6	
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	5	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		5	5	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): , Type: SPE**)				
Barrel Last Accessible Date	05-Nov-2009			Only able to access the first 4 rings.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	05-Nov-2009
Measured Rise (mm)	2400			
Measured At Ring No.	10			
Sag (mm)	153			
Percent Sag	6			
Sidewall		7	7	05-Nov-2009
Measured Span (mm)	2412			
Measured At Ring No.	10			
Deflection (mm)	98			
Percent Deflection	4			
Floor		7	7	Water & silt on floor. Scaling rust.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	N	Seam between R15/R16 missing 1 bolt in sidewall. Seam between R6/R7 missing 1 bolt in roof.-05-Nov-2009
Separation (mm)	0			
Longitudinal Seams		6	6	1N Stagger
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Pitting & scaling rust lower 1/3. Leaking through sidewall bolt holes.
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): , Type: SPE**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
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		S		Southeast
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	100			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		4	4	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		4	4	8m x 15m x 1m scour hole D/S.
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

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)	Yes			
Channel Bottom Degrading/Aggrading				
Beavers (Y/N)	Yes			
(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) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**61.7/61.7**	Est. Repl. Yr	2025	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	Melanie Johnson	Previous Assistant's Name			
Next Inspection Date	27-May-2013	Previous Inspection Date	05-Nov-2009		
Inspection Cycle (Default) (months)	21				
Comment					