Bridge Culvert Inspection

Bridge File Number	71989 -1 Bridge Culvert	Form Type	CUL1
Year Built	1992	Lot No.	4
Bridge or Town Name	LONGVIEW	Inspector Name	Garry Roberts
Located Over	RICE CREEK, 2.12.25.21, WATERCRS-ST	Inspector Class	BR CLS A
Located On	22:08 C1 45.482	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	05-Jun-2012
Legal Land Location	NW SEC 23 TWP 14 RGE 2 W5M	Data Entry By	Kelsey Roberts
Longitude, Latitude	-114:10:55, 50:11:11	Data Entry Date	05-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Tom Carey
Contract Main. Area	CMA27	Review Date	18-Jun-2012
Clear Roadway/Skew	12.3 / 15 deg. (RHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	1,980 / 2011 (A)	Dept. Review Date	12-Jul-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	12		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3440	SP	59.7	152X51	3.0,3.0,3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch.	Gas	50m to the South.
Power	1 line East ditch, 20m from c/l.	Municipal	
Others	Fibre optics @ East r/w.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		7	7	
Roadway Width (m)	12.300			
Embankment		7	7	8:1 berm midway @ West & East.
Sideslope (__:1)	4.5			
(Height of Cover(m) : **4.3**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		West
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	Narrow cracking.
Collar		8	8	Narrow cracks on North side.
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		7	7	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		7	7	Rock in bevel.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **1000**)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			10m and 30m U/S beaverdam
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): 3440, Type: SP**)				
Barrel Last Accessible Date	05-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	Est. roof
Measured Rise (mm)	3375			
Measured At Ring No.	10			
Sag (mm)	65			
Percent Sag	1			
Sidewall		8	8	
Measured Span (mm)	3495			
Measured At Ring No.	9			
Deflection (mm)	55			
Percent Deflection	1			
Floor		7	7	Rock at baffles
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			2N stagger
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		5	5	
Corrosion By Soil (Y/N)	No			Minor superficial on floor
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	POS			
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): 3440, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		7	7	Steel baffles at every 2nd ring
(Type : **WEIR**)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		East
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	Minor denting from rock placement.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	600			
Scour Protection		6	6	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **1100**)				
Scour/Erosion		6	6	approx. 20m x 30m scour hole 15m D/S
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	Stream curves to South @ D/S.
Bank Stability		5	5	Vertical bank 2.5m @ North bank D/S, riprapped to 8m from invert.
HWM (m below Top of Culvert)	1.0			Drift on top of headwall, up sideslope @ U/S. Medium sized drift.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading				beaverdam 30m U/S
Beavers (Y/N)	Yes			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/77.8**	**Sufficiency Rating (Last/Now) (%)**	**78.4/68.9**	Est. Repl. Yr	2048	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	Garry Roberts	Previous Assistant's Name			
Next Inspection Date	05-Mar-2014	Previous Inspection Date	08-Oct-2010		
Inspection Cycle (Default) (months)	21				
Comment					