Bridge Culvert Inspection

Bridge File Number	75144 -1 Bridge Culvert	Form Type	CUL1
Year Built	1989	Lot No.	2
Bridge or Town Name	BROOKS	Inspector Name	Jon Davies
Located Over	EID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	873:02 C1 15.246	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	22-Mar-2012
Legal Land Location	NE SEC 30 TWP 16 RGE 14 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-111:54:41, 50:22:43	Data Entry Date	16-Apr-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	24-Mar-2012
Clear Roadway/Skew	12 /	Dept. Reviewer Name	Tim Davies
AADT/Year	250 / 2011 (A)	Dept. Review Date	17-Apr-2012
Road Classification	RLU-209G-90	Follow-Up By	
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	4215	SP	51.2	152X51	3.0,3.0,3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	west ditch	Gas	2 lines x 10m u/s
Power	3 wire E ditch	Municipal	
Others	High Pressure waterline 10m u/s	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	curves 200m south
Vertical Alignment		6	6	cattlegate 50m S
Roadway Width (m)	11.500			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **4**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				West
End Treatment (Concrete, Steel, Others, None)	CONCRETE			Unable to view
Headwall		N	N	
Collar		N	N	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		N	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	900			
Scour Protection		N	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**7**	General rating carried forward

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 4215, Type: SP**)				
Barrel Last Accessible Date	22-Jan-1999			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	N	Unable to view pipe water level is within 500 mm of crown.
Measured Rise (mm)	4330			
Measured At Ring No.	1			
Sag (mm)	100			
Percent Sag	0			
Sidewall		N	N	
Measured Span (mm)	4310			
Measured At Ring No.	1			
Deflection (mm)	115			
Percent Deflection	0			
Floor		N	N	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	N	
Separation (mm)	0			
Longitudinal Seams		N	N	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		N	N	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			No sight line
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): 4215, Type: SP**)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	Under sized pipe
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				EAST Unable to view
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		N	4	wide transverse crack at full depth of section near crown.
Collar		N	N	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		N	N	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		N	N	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	N	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		9	9	control structure u/s
Bank Stability		6	7	
HWM (m below Top of Culvert)	2.0			above culvert stains on riprap. U/S and D/S indicate pipe spends significant time submerged.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Not visible
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**9**	**9**	

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	2012	Confirm with EID when rolling hills reservoir will be drawn down and coordinate inspection review pipe capacity requirements.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**59.0/55.8**	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	Yes

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	Tim Davies	Previous Assistant's Name			
Next Inspection Date	22-Jun-2015	Previous Inspection Date	01-Apr-2009		
Inspection Cycle (Default) (months)	39				
Comment					