Bridge Culvert Inspection

Bridge File Number	74833 -1 Bridge Culvert	Form Type	CUL1
Year Built	1988	Lot No.	4
Bridge or Town Name	VAUXHALL	Inspector Name	Jon Davies
Located Over	BRP - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	36:04 C1 39.855	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	02-Jan-2012
Legal Land Location	SE SEC 34 TWP 13 RGE 16 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-112:05:51, 50:07:28	Data Entry Date	24-Feb-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA24	Review Date	20-Jan-2012
Clear Roadway/Skew	10.6 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,030 / 2010 (A)	Dept. Review Date	11-Mar-2012
Road Classification	RAU-211.8-110	Follow-Up By	
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	6900	2800	RPA	23.2	152X51	5.0,4.0,4.0	ARCH
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	W R/W-x's canal 15m W	Gas	
Power	3 line east r/w.	Municipal	
Others	Fibre optic cable West ROW	Problem (Y/N)	No
Remarks	STEEL CONDUIT OVER WEST CROWN		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		8	8	
Roadway Width (m)	10.600			
Embankment		8	7	
Sideslope (__:1)	6.0			
(Height of Cover(m) : **0.8**)				
Guardrail (Y/N)	Yes			2 LAYERS ENDING IN 3 m RADIUS TO CANAL ROADWAYS Incorrect lap at West and at 2 flare ends
Approach Road / Embankment General Rating		**8**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West invert.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		8	8	
(Shape : **FLARE**)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6900, Rise (mm): 2800, Type: RPA**)				
Barrel Last Accessible Date	03-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Est. General roof shape is good.
Measured Rise (mm)	2650			
Measured At Ring No.	4			
Sag (mm)	150			
Percent Sag	5			
Sidewall		N	7	
Measured Span (mm)	6880			Inward
Measured At Ring No.	3			
Deflection (mm)	20			
Percent Deflection	0			
Floor		N	N	700 mm of ice
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
Separation (mm)	0			
Longitudinal Seams		N	6	3N Stagger on roof only
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)	No			
Coating		N	5	Superficial corrosion
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 6900, Rise (mm): 2800, Type: RPA**)				
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		9	8	
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**N**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	
Wingwalls		8	8	
(Shape : **FLARE**)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	800			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **150**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		9	9	Turn out structure 20m u/s
Bank Stability		8	8	No HMW visible
HWM (m below Top of Culvert)	0.7			
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		**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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**74.9/77.0**	Est. Repl. Yr	2044	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	Tom Carey	Previous Assistant's Name	
Next Inspection Date	02-Oct-2013	Previous Inspection Date	23-Jun-2010
Inspection Cycle (Default) (months)	21		
Comment			