

Bridge Culvert Inspection				
Bridge File Number	78442 -1 Bridge Culvert		Form Type	CUL1
Year Built	1982		Lot No.	4
Bridge or Town Name	MONARCH		Inspector Name	Tom Carey
Located Over	LNI - IRRIGATION C, WATERCRS-IC		Inspector Class	BR CLS A
Located On	23:04 C1 3.105		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	18-Feb-2013
Legal Land Location	SE SEC 8 TWP 10 RGE 23 W4M		Data Entry By	Anne Roberts
Longitude, Latitude	-113:04:56, 49:48:27		Data Entry Date	17-Mar-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Garry Roberts
Contract Main. Area	CMA25		Review Date	03-Mar-2013
Clear Roadway/Skew	15.8 / -44 deg. (LHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	6,120 / 2011 (A)		Dept. Review Date	25-Mar-2013
Road Classification	RAU-213-130		Follow-Up By	
Detour Length (km)	3			

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1830	SP	100	152X51	3.0,3.0,3.0	ROUND
Special Features								
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	60 m North
Power		Municipal	
Others	Light standards	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Is under North approach of file 78585 Irrigation ditch parallel to railway. Curve to South. On grade.
Vertical Alignment		6	6	
Roadway Width (m)	15.800			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : 9)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>6</b>	<b>6</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		
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		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			6m of SP bevel of original pipe.
Above/Below (mm)	200			
Scour Protection		7	7	Ingrown
(Type : <b>RIP RAP</b> )				
(Avg. Rock Size(mm) : <b>300</b> )				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>7</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : <b>1, Primary Span, Location Code: MAIN, Span (mm):</b>				<b>, Rise (mm): 1830, Type: SP</b> )
Barrel Last Accessible Date	09-Oct-1998			Lined with 1200 mm dia concrete pipe.
<b>Special Features</b>				
Special Feature				Unable to enter. 600mm to 800mm deep silt and ice - to restrictive. Viewed from ends. No problems observed.
(Type : )				
Special Feature				
(Type : )				
Roof		N	N	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		N	N	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)				
Longitudinal Seams		N	N	
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		5	5	At bevels.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	NEG			
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): 1830, Type: SP)				
Fish Passage Adequacy		X	X	
Baffle (Type : )		X	X	
Waterway Adequacy		5	5	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
<b>Barrel General Rating</b>		<b>N</b>	<b>N</b>	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		
End Treatment (Concrete, Steel, Others, None)		STEEL		
Headwall		X	X	
Collar		X	X	
Wingwalls (Shape : )		X	X	
Cutoff Wall		X	X	
Bevel End		7	7	6m of SP bevel of original pipe.
Heaving (mm)		0		
Invert Above/Below Stream Bed		BELOW		
Above/Below (mm)		200		
Scour Protection (Type : <b>RIP RAP</b> ) (Avg. Rock Size(mm) : <b>300</b> )		7	7	
Scour/Erosion		7	7	
Beavers (Y/N)		No		
<b>Downstream End General Rating</b>		<b>7</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		6	6	
HWM (m below Top of Culvert)		1.8		No visible HWM
Drift (Y/N)		No		
Channel Bottom Degrading/Aggrading		NONE		Iced over.
Beavers (Y/N)		No		
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>8</b>	<b>8</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>55.6/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>58.7/58.6</b>	Est. Repl. Yr	2033	Maint. Req. (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	18-Nov-2014		Previous Inspection Date	18-May-2011			
Inspection Cycle (Default) (months)	21						
Comment							