Bridge Culvert Inspection

Bridge File Number	09452 -1 Bridge Culvert	Form Type	CUL1
Year Built	1959	Lot No.	2
Bridge or Town Name	WAYNE	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO HOME COULEE, 3.33.1.1, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	569:02 C1 7.913	Assistant Class	
Water Body Cl./Year		Inspection Date	30-Jan-2012
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	SE SEC 17 TWP 27 RGE 19 W4M	Data Entry Date	08-Mar-2012
Longitude, Latitude	-112:38:02, 51:17:59	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	03-Feb-2012
Contract Main. Area	CMA21	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	8.3 / 0 deg.	Dept. Review Date	11-Mar-2012
AADT/Year	80 / 2010 (A)	Follow-Up By	
Road Classification	RLU-208-100		
Detour Length (km)	8		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2027	2240	SPE	50	152X51	3.5	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	SOUTH DITCH	Gas	CROSSING 100 M WEST
Power	3 WIRES NORTH	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Int. Hwy 56 120m E
Vertical Alignment		4	4	SAG CURVE-substandard
Roadway Width (m)	8.300			
Embankment		6	6	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **4.9**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**4**	**4**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				South side
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		4	4	Missing 50 nuts from bevel. Plates lapped so only 1 row lining up.
Heaving (mm)	50			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	75			
Scour Protection		7	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2027, Rise (mm): 2240, Type: SPE**)				
Barrel Last Accessible Date	30-Jan-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	
Measured Rise (mm)	2160			
Measured At Ring No.	10			
Sag (mm)	80			
Percent Sag	4			
Sidewall		6	6	
Measured Span (mm)	2100			
Measured At Ring No.	10			
Deflection (mm)	73			
Percent Deflection	4			
Floor		7	7	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		6	6	Some bolts not tight at Rings 6 + 13.
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				In stagger.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Staining at bolt holes above and below waterline.
Corrosion By Soil (Y/N)	Yes			
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): 2027, Rise (mm): 2240, Type: SPE**)				
Fish Passage Adequacy		5	5	
Baffle		X	X	
(Type :)				
Waterway Adequacy		5	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**6**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				North
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	
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		4	4	Rip Rap displaced at bevel slopes. 1.5m X 2m at the NE and 2m X 3m at the NW.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		4	4	6 x 8 x 1m deep scour hole.
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)				No HWM visible.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(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	2012	30m3 class 1 @ D/S end				
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) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**51.8/51.8**	Est. Repl. Yr	2025	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	William Reardon	Previous Assistant's Name			
Next Inspection Date	30-Apr-2015	Previous Inspection Date	24-Nov-2008		
Inspection Cycle (Default) (months)	39				
Comment					