Bridge Culvert Inspection

Bridge File Number	75593 -1 Bridge Culvert	Form Type	CUL1
Year Built	1962	Lot No.	2
Bridge or Town Name	MONITOR	Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	12:20 C1 11.437	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	19-Jul-2012
Legal Land Location	NE SEC 11 TWP 35 RGE 5 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-110:36:21, 51:59:24	Data Entry Date	02-Aug-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA22	Review Date	31-Jul-2012
Clear Roadway/Skew	11.3 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	840 / 2011 (A)	Dept. Review Date	07-Aug-2012
Road Classification	RAU-211.8-110	Follow-Up By	
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1700	1980	RPP	23.8	152X51	2.8	PIPE ARCH
Special Features		CONC FLOOR						
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N)												
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks	Not required.											

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	3 lines 18 m North.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Blind sag curve @ 200m West.
Vertical Alignment		6	6	Wide transverse crack - sealed.
Roadway Width (m)	11.300			
Embankment		7	7	North end measured.
Sideslope (__:1)	4.0			Steepens to 2:1 near barrel ends.
(Height of Cover(m) : **1.2**)				
Guardrail (Y/N)	Yes			NW turndown is damaged - photo
Approach Road / Embankment General Rating		**6**	**6**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Square ends
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Well grassed. Sparce rocks.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
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): 1700, Rise (mm): 1980, Type: RPP**)				
Barrel Last Accessible Date	19-Jul-2012			
Special Features				
Special Feature		N	N	Concrete Floor - dirt covered.
(Type : **CONC FLOOR**)				
Special Feature				
(Type :)				
Roof		5	5	Estimate roof sag 40mm - 2.0% roof; 1930 to floor. Hole in roof near South end at R8. Steel plate behind hole to prevent fill infiltration (photo).
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	40			
Percent Sag				
Sidewall		7	5	Missing bolt along sidewall seam.
Measured Span (mm)	1730			
Measured At Ring No.	5			
Deflection (mm)	30			
Percent Deflection	2			
Floor		N	N	Dirt covered.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		5	5	Missing 10 bolts & nuts @ last section both sides - isolated Non-galvanized bolts @ South end.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Rusting around hole - no problem.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1700, Rise (mm): 1980, Type: RPP**)				
Camber POS/ZERO/NEG	POS			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		X	X	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	NONE			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	Square ends.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	Fence across South end. Sparce rocks.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		6	6	Dirt covered.
Roadway Surface		6	6	
(Type :)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type	None			
Lighting		X	X	
Barrel Leakage (Y/N)	No			

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Drainage		7	7	
Structure In Use (Y/N)	Yes			
Grade Separation 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	2012	Install bolts / nuts where missing (10).				
OTHER ACTION	2012	Replace NW turned down end; attach to end post.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**71.9/71.9**	Est. Repl. Yr	2029	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)	N				
Proposed Action	2007.06.22 Revisit site again in two years to determine continued usage.				
Previous Inspector's Name	Owen Salava	Previous Assistant's Name			
Next Inspection Date	19-Apr-2014	Previous Inspection Date	27-Aug-2010		
Inspection Cycle (Default) (months)	21				
Comment					