Bridge Culvert Inspection

Bridge File Number	74184 -1 Bridge Culvert	Form Type	CUL1
Year Built	1953	Lot No.	4
Bridge or Town Name	HARDISTY	Inspector Name	Owen Salava
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS A
Located On	13:16 C1 35.500	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	28-Jun-2012
Legal Land Location	NE SEC 4 TWP 43 RGE 10 W4M	Data Entry By	Marcia Chavez
Longitude, Latitude	-111:23:10, 52:40:36	Data Entry Date	15-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA16	Review Date	05-Jul-2012
Clear Roadway/Skew	10.5 /	Dept. Reviewer Name	Andrew Smikles
AADT/Year	1,730 / 2011 (A)	Dept. Review Date	19-Jul-2012
Road Classification	RAU-210-110	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	2000	2000	BP	19.5			RECTANGLE
Special Features								
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)		Lane	SB	On Bridge (m)		In Advance (Y/N)
Remarks											

Utilities (Located at)

Utility Attachments			
Telephone	North r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curve starts 100m East. No passing EBL.
Vertical Alignment		7	7	
Roadway Width (m)	10.500			
Embankment		7	7	North end measured.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **1.3**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		X	X	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		6	6	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	Sparce rock riprap.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2000, Rise (mm): 2000, Type: BP**)				
Barrel Last Accessible Date	28-Jun-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		N	N	75-100mm of dirt & some gravel deposit inside culvert.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	Spall 400 x 200 at seam - minor. Still retaining fill and structural integrity (photo).
Separation (mm)	30			
Longitudinal Seams		X	X	
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 2000, Rise (mm): 2000, Type: BP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		4	4	Scaled on SW corner. Spalled exposing rebar
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		6	6	Some 300 mm rock at SE.
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		8	8	This structure also handles runoff.
Roadway Surface		7	7	
(Type : **SOIL**)				
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		5	5	Goose Creek is immediately South of structure. Farm at SE.
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**5**	**5**	

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) (%)	**77.8/77.8**	**Sufficiency Rating (Last/Now) (%)**	**69.8/69.9**	Est. Repl. Yr	2024	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	Owen Salava	Previous Assistant's Name			
Next Inspection Date	28-Mar-2014	Previous Inspection Date	31-Aug-2010		
Inspection Cycle (Default) (months)	21				
Comment					