

Bridge Culvert Inspection				
Bridge File Number	74348 -1 Bridge Culvert		Form Type	CULM
Year Built	1954		Lot No.	2
Bridge or Town Name	HINTON		Inspector Name	Shane Hall
Located Over	HARDISTY CREEK, 8.11.138, WATERCRS-ST		Inspector Class	BR CLS A
Located On	16:02 R1 29.097;16:02 L1 29.104		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	12-Aug-2012
Legal Land Location	NE SEC 13 TWP 51 RGE 25 W5M		Data Entry By	Theresa Lacusta
Longitude, Latitude	-117:32:57, 53:24:35		Data Entry Date	10-Sep-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Eric Carcoux
Contract Main. Area	CMA13		Review Date	30-Aug-2012
Clear Roadway/Skew	25.5 /		Dept. Reviewer Name	Brent Herrick
AADT/Year	8,730 / 2011 (A)		Dept. Review Date	18-Sep-2012
Road Classification	RAD-412.4-120		Follow-Up By	
Detour Length (km)	1			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	8000	2500	BP	70.3			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments								
Telephone	North r/w.			Gas	Gas runs along South embankment.			
Power	6 lines North r/w.			Municipal				
Others	Light standards both embankments.			Problem (Y/N)	No			
Remarks	File tag in place on West cell.							

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to West.
Vertical Alignment		7	7	Sag curve with good sight distance. Accel & decel lanes, both directions.
Roadway Width (m)	25.500			12 EB; 13.5 WB.
Embankment		6	6	Erosion gully 600 deep x 1.0m deep @ NW. Gully filled with riprap and protected at intervals with silt fence.
Sideslope (__:1)	2.5			
(Height of Cover(m) : 6)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		7	7	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		X	X	
Wingwalls		6	6	
(Shape : FLARE)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
Scour/Erosion		7	7	
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): 4000, Rise (mm): 2500, Type: BP, Cell Sequence: 1)				
Barrel Last Accessible Date	12-Aug-2012			East cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2500			
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		6	5	Narrow vertical cracks in wall every 2.5m. Bottom chamfer has chipped a total of approx 3m. Seepage through center wall cracks. 2006. 400mm100x200mm wide delam on WE wall 5m from inlet.
Measured Span (mm)	2000			
Measured At Ring No.				
Deflection (mm)	0			
Percent Deflection				
Floor		5	5	Abrasion up to 50mm. 2m2 of floor deteriorated rebar exposed.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		6	6	At construction joints.
Separation (mm)	24			
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)	No			
Corrosion By Water (Y/N)	No			
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): 4000, Rise (mm): 2500, Type: BP, Cell Sequence: 1)				
Fish Passage Adequacy		4	4	Drop at outlet .4m, steep grade.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)		No		
Siltting (Y/N)		No		
Drift (Y/N)		No		
Barrel General Rating		6	5	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 4000, Rise (mm): 2500, Type: BP, Cell Sequence: 2)				
Barrel Last Accessible Date		12-Aug-2012		West cell.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Narrow vertical cracks in wall every 2.5m average. Medium crack @ approx 20m from U/S end.
Measured Rise (mm)		2500		
Measured At Ring No.				
Sag (mm)		0		
Percent Sag				
Sidewall		6	6	Medium crack @ approx 20m from U/S.
Measured Span (mm)		4000		
Measured At Ring No.				
Deflection (mm)		0		
Percent Deflection				
Floor		4	3	Older section has severely scaled floor, down 50mm average and exposed aggregate. Bottom chamfer has deteriorated a total of approx 3.0m in length. One localized area is 125m deepx4.0m wide for full width of cell.- photo Feels like floor is completely missing in this area.
Bulge (mm)		0		
Measured At Ring No.				
Abrasion (Y/N)		Yes		
Circumferential Seams		5	5	At construction joint.
Separation (mm)		25		
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)		No		
Corrosion By Water (Y/N)		No		
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): 4000, Rise (mm): 2500, Type: BP, Cell Sequence: 2)				
Fish Passage Adequacy		4	4	400mm outfall, steep grade.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		6	3	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	
Collar		X	X	
Wingwalls (Shape : FLARE)		4	3	Wing @ E aside spalling and scaling. 50mm wide crack @ NE wing, with wing separating from barrel.-photo 1m x 0.6 x 0.2m hole on apron.-photo 0.5mx0.3m hole in apron adjacent to NE wing.-photo 1mx0.3m hole at outlet from W. cell.-photo Water flowing under outlet slab. Slab has heaved approx. 75mm.
Cutoff Wall		N	N	
Bevel End		X	X	
Heaving (mm)				
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	750			
Scour Protection (Type : RIP RAP) (Avg. Rock Size(mm) : 500)		7	7	
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		4	3	
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)				HWM not visible. Drift partially buckling u/s end.-photo
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			Deg d/s.
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							
REMOVE DRIFT ACCUMULATION	2013	From u/s end.					
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Repair NE wingwall and outlet slab.					
OTHER ACTION	2013	Dewater West cell to determine extent of need floor repairs and repair as required.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	66.7/33.3	Sufficiency Rating (Last/Now) (%)	60.4/44.4	Est. Repl. Yr	2048	Maint. Req. (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	Eric Carcoux		Previous Assistant's Name				
Next Inspection Date	12-May-2014		Previous Inspection Date	15-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							