

Bridge Culvert Inspection				
Bridge File Number	77490 -1 Bridge Culvert		Form Type	CUL1
Year Built	1977		Lot No.	2
Bridge or Town Name	EXSHAW		Inspector Name	Garry Roberts
Located Over	HOOD CK, 2.13.56.17, WATERCRS-ST		Inspector Class	BR CLS A
Located On	40:12 C1 3.270		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	01-Apr-2013
Legal Land Location	NW SEC 36 TWP 20 RGE 9 W5M		Data Entry By	Lauren Korte
Longitude, Latitude	-115:07:37, 50:44:35		Data Entry Date	24-Apr-2013
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA28		Review Date	10-Apr-2013
Clear Roadway/Skew	11.4 /		Dept. Reviewer Name	Tim Davies
AADT/Year	1,690 / 2012 (A)		Dept. Review Date	06-May-2013
Road Classification	RAU-209-110		Follow-Up By	
Detour Length (km)	50			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2027	2240	SPE	73.8	152X51	5.0	ELLIPSE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments				
Telephone			Gas	
Power	West row.		Municipal	
Others			Problem (Y/N)	No
Remarks				

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Marked "Hood Creek"-curves 200m South & 500m North-Grade to North.
Vertical Alignment		6	6	
Roadway Width (m)	11.400			
Embankment		7	7	
Sideslope (___:1)	3.0			
(Height of Cover(m) : 10.5)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		6	6	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		E		East.
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	All sides of bevel are damaged - appears to be from equipment removing rock. Corrosion with pitting on floor. North side is pushing in 400mm.
Heaving (mm)	50			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 500)				
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	01-Apr-2013			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	5	
Measured Rise (mm)	2097			
Measured At Ring No.	10			
Sag (mm)	158			
Percent Sag	7			
Sidewall		5	5	
Measured Span (mm)	2185			
Measured At Ring No.	10			
Deflection (mm)	158			
Percent Deflection	7			
Floor		N	N	Rocks 1.0m from roof @ d/s end- begin in R7.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	Yes			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		6	6	Lower seams not visible.
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		4	4	(Corrosion with some pitting on entire floor). Floor 80% Rock Covered. Rating carried over.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
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): 2027, Rise (mm): 2240, Type: SPE)					
Fish Passage Adequacy		5	5		
Baffle		X	X		
(Type :)					
Waterway Adequacy		4	4	Rock within 0.8m of roof @ d/s end.	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		4	5		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
Direction		W			
End Treatment (Concrete, Steel, Others, None)		NONE			
Headwall		X	X	End of pipe aggregated to 1.0m of roof.	
Collar		X	X		
Wingwalls (Shape :)		X	X		
Cutoff Wall		X	X		
Bevel End		X	X		
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	300				
Scour Protection		6	6		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 500)					
Scour/Erosion		6	6		
Beavers (Y/N)		No			
Downstream End General Rating		6	6		
Structure Usage					
		Last	Now	Explanation of Condition	
Channel (U/S and D/S)					
Alignment		6	6		
Bank Stability		5	5		
HWM (m below Top of Culvert)	-1.0			Grass on roof bolts - pipe has flowed full due to d/s aggregation. Minor drift in channel & barrel.	
Drift (Y/N)	Yes				
Channel Bottom Degrading/Aggrading		AGGRADING		At D/S.	
Beavers (Y/N)		No			
(Fish Compensation Measure 1 : NONE)					
(Fish Compensation Measure 2 : NONE)					
Channel General Rating		5	6		

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2013	Lower D/S channel to flush barrel.					
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2013	Straighten U/S bevel.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/55.6	Sufficiency Rating (Last/Now) (%)	42.0/48.1	Est. Repl. Yr	2025	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	01-Jan-2015		Previous Inspection Date	26-May-2011			
Inspection Cycle (Default) (months)	21						
Comment							