

Bridge Culvert Inspection				
Bridge File Number	74660 -1 Bridge Culvert		Form Type	CULE
Year Built	1957		Lot No.	4
Bridge or Town Name	EXSHAW		Inspector Name	Garry Roberts
Located Over	TRIBUTARY TO BOW RIVER, 2.13.59, WATERCRS-ST		Inspector Class	BR CLS A
Located On	1:02 R1 24.792;1:02 L1 24.706		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Feb-2012
Legal Land Location	SW SEC 24 TWP 24 RGE 9 W5M		Data Entry By	Lauren Korte
Longitude, Latitude	-115:08:28, 51:03:24		Data Entry Date	16-Mar-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	Tom Carey
Contract Main. Area	CMA28		Review Date	22-Feb-2012
Clear Roadway/Skew	25.6 / 20 deg. (RHF)		Dept. Reviewer Name	Tim Davies
AADT/Year	16,520 / 2010 (A)		Dept. Review Date	22-Mar-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	U/S	1760	2280	RPP	40.2			PIPE ARCH
1	MAIN	2430	2430	BP	26.3			RECTANGLE
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	North and South ditch media.	Gas	@ S RW.
Power	3 West MAIN 100 m SOUTH.	Municipal	
Others	Fibre optics cable in median.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	6	6	On curve good sight distance.
Vertical Alignment	7	7	
Roadway Width (m)	25.600		
Embankment	7	7	
Sideslope (__:1)	3.0		
(Height of Cover(m) : 2.2)			
Guardrail (Y/N)	Yes		South side only.
Approach Road / Embankment General Rating	6	6	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction			South end. - SP SPAN.
End Treatment (Concrete, Steel, Others, None)	STEEL		
Headwall	X	X	
Collar	X	X	
Wingwalls	X	X	
(Shape :)			

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	200			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			Beaver Dam 8m U/S.
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): 1760, Rise (mm): 2280, Type: RPP)				
Barrel Last Accessible Date	08-Feb-2012			SPCSP under EBL.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	5	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	4	Poor plate nesting and gaps to 17 mm in sidewall seam. Ice to high to measure span.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	Ice 1.3 deep.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	5	Isolated loose bolts.
Separation (mm)	0			
Longitudinal Seams		N	4	Isolated loose bolts and poor nesting with gaps to 17 mm at R16.
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		N	5	Moderate to heavy corrosion at longitudinal seams. Soil corrosion at upper bolts.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: U/S, Span (mm): 1760, Rise (mm): 2280, Type: RPP)				
Ponding (Y/N)	Yes			Pipe acts as equalizer. Ice/water to 1.3 m.
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		N	4	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP)				
Barrel Last Accessible Date	08-Feb-2012			Concrete box under WBL.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Isolated tranverse cracks.
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)				
Percent Sag				
Sidewall		N	6	Isolated vertical cracks.
Measured Span (mm)				
Measured At Ring No.				
Deflection (mm)				
Percent Deflection				
Floor		N	N	1 m of ice.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	8			
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			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2430, Rise (mm): 2430, Type: BP)				
Ponding (Y/N)	Yes			Pipe acts as equalizer. Ice/water to 1.3 m deep.
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	5	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		N	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction				North end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		7	7	
Collar		X	X	
Wingwalls		6	6	Vertical crack both NE&NW-up to 1mm wide.
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	1000			
Scour Protection		7	7	
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	Yes			Small dam located 4.0m from D/S end & large dam located 60m east of D/S end.
Downstream End General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Empties into channel of Bow River. U/S is large pond.
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.5			Waterline in barrels.
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			Beaver Dam 8m from U/S end.
Beavers (Y/N)	Yes			
(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							
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) (%)	55.6/44.4	Sufficiency Rating (Last/Now) (%)	60.3/52.1	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	No
Special Comments for Next Inspection	Accessible in winter if adequate ice. Previous last accessible date 1990. G. Roberts 08-Feb-2012		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	08-Nov-2013		Previous Inspection Date	27-Sep-2010			
Inspection Cycle (Default) (months)	21						
Comment							