

Bridge Culvert Inspection				
Bridge File Number	02294 -1 Bridge Culvert		Form Type	CUL1
Year Built	1953		Lot No.	3
Bridge or Town Name	BENALTO		Inspector Name	Owen Salava
Located Over	NUORISON CK, 3.88.10, WATERCRS-ST		Inspector Class	BR CLS A
Located On	11:12 C1 2.138		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	01-Feb-2012
Legal Land Location	SW SEC 2 TWP 39 RGE 3 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-114:19:48, 52:19:09		Data Entry Date	01-Mar-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA19		Review Date	22-Feb-2012
Clear Roadway/Skew	10.8 / 0 deg.		Dept. Reviewer Name	Andrew Smikles
AADT/Year	5,740 / 2010 (A)		Dept. Review Date	09-Mar-2012
Road Classification	RAU-211.8-110		Follow-Up By	
Detour Length (km)	6			

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	-	1810	SP	27.4	152X51		ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

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

Approach Road / Embankment

	Last	Now	Explanation of Condition
Horizontal Alignment	9	9	Hill 300m West.
Vertical Alignment	8	8	
Roadway Width (m)	10.800		
Embankment	6	6	Wide ACP transverse crack over pipe - sealed.
Sideslope (_ :1)	4.0		
(Height of Cover(m) : 1.8)			
Guardrail (Y/N)	No		
Approach Road / Embankment General Rating	8	8	

Upstream End

Culvert Component	Last	Now	Explanation of Condition
Direction	N		
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	N	(Damaged by hoe, torn on West side, two places, minor. Top of bevel bent inwards. 30Mar2010). Snow covered.
Heaving (mm)	200			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	Snow covered.
(Type : NATURAL)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		5	N	(Minor shoulder erosion starting as old riprap washed out. 30Mar2010).
Beavers (Y/N)	Yes			Beaver grate.
Upstream End General Rating		4	4	GR carried forward from 30Mar2010.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP)				
Barrel Last Accessible Date	01-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		6	6	Unable to measure due to ice.
Measured Rise (mm)	1860			
Measured At Ring No.	6			
Sag (mm)	50			
Percent Sag	2			
Sidewall		6	6	(Large hole in sidewall at inlet - photo. No infiltration, construction damage. 30Mar2010). Small isolated holes in sidewall.
Measured Span (mm)	1870			
Measured At Ring No.	6			
Deflection (mm)	60			
Percent Deflection	3			
Floor		6	N	(Some rocks washed into barrel floor. 30Mar2010).
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	1N
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		4	4	Minor superficial rust on lower sidewalls and floor. Minor soil side.
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: MAIN, Span (mm): , Rise (mm): 1810, Type: SP)				
Ponding (Y/N)	No			
Fish Passage Adequacy		3	3	Perched outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		4	4	As indicated by scour below culvert outlet.
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		6	6	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		S		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		4	4	Damaged by hoe and bent sideways.
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	600			
Scour Protection		4	4	Bevel cantilevered 1.0m armoured by rock - photo.
(Type : NONE)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		4	4	Scour undermining invert.
Beavers (Y/N)	Yes			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	Old beaver pond U/S.
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.4			
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
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	2012	2m3 Class I to inlet shoulders (if not yet done) & outlet to raise streambed elevation @ perched outlet.					
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) (%)	66.7/66.7	Sufficiency Rating (Last/Now) (%)	43.5/43.5	Est. Repl. Yr	2020	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	Owen Salava		Previous Assistant's Name	Chris Black			
Next Inspection Date	01-Nov-2013		Previous Inspection Date	30-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							