Bridge Culvert Inspection

Bridge File Number	72243 -1 Bridge Culvert	Form Type	CUL1
Year Built	1966	Lot No.	3
Bridge or Town Name	ROCKY MT HOU	Inspector Name	Owen Salava
Located Over	PRENTICE CREEK, 6.156, WATERCRS-ST	Inspector Class	BR CLS A
Located On	756:02 C1 4.003	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	03-Feb-2011
Legal Land Location	SE SEC 13 TWP 40 RGE 8 W5M	Data Entry By	Marcia Chavez
Longitude, Latitude	-115:00:35, 52:26:23	Data Entry Date	09-Mar-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	John O'Brien
Contract Main. Area	CMA18	Review Date	17-Feb-2011
Clear Roadway/Skew	9 / 0 deg.	Dept. Reviewer Name	Chris Black
AADT/Year	1,500 / 2009 (A)	Dept. Review Date	10-Mar-2011
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	7		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2438	SP	33.5	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power	3 wires 25m East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	
Vertical Alignment		8	8	
Roadway Width (m)	9.000			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **1.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**8**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction				
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		N	N	(Hole in bevel end & corrosion. Rock in mouth of bevel end. 99/10/12). (Not visible, heavy rock deposit - photo. 06Sep2005). Under ice. Roof slightly damaged - photo.
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	N	Snow covered.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		7	N	Snow covered.
Beavers (Y/N)	No			
Upstream End General Rating		**4**	**4**	GR carried forward from 06Sep2005.

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2438, Type: SP**)				
Barrel Last Accessible Date	03-Feb-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	Midspan (Est due to rocks on floor. 06SEp2005). Unable to measure due to ice. 1.6%
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	40			
Percent Sag	2			
Sidewall		7	7	1.6%
Measured Span (mm)	2480			
Measured At Ring No.	4			
Deflection (mm)	42			
Percent Deflection	2			
Floor		N	N	Rocks on floor. (Oct. 12/99) (Oct. 12/99)
Bulge (mm)	40			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		4	4	First 2 circumferential seam bolts are coming loose, some already lost nuts - photo.
Separation (mm)	0			
Longitudinal Seams		4	4	Missing bolt on 2 lap joints near U/S end, S & N sidewall - photo.
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	Some pitting from springline down.
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): 2438, Type: SP**)				
Ponding (Y/N)	Yes			(600mm due to rocks in inlet & outlet. 06Sep2005).
Fish Passage Adequacy		6	6	
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	Ice build-up at inlet.
Icing (Y/N)	Yes			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**4**	**4**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction				
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	(Heavy rock deposit. 06Sep2005).
Heaving (mm)	60			
Invert Above/Below Stream Bed				
Above/Below (mm)	0			
Scour Protection		5	N	(12m dia shallow basin eroded off D/S end. 06Sep2005).
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		5	N	
Beavers (Y/N)	No			
Downstream End General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		7	7	(99/10/12)
Bank Stability		5	5	
HWM (m below Top of Culvert)	1.5			
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
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						
INSTALL CONCRETE/STEEL LINING						
INSTALL STRUTS						
INSTALL CONCRETE COLLAR/CUTOFF						
REPAIR SEAMS						
OTHER ACTION	2012	Tighten nut where possible when in the area. (L)				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**51.8/51.9**	Est. Repl. Yr	2019	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Watch for separation where missing bolts/nuts.	Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	2004.05.30 Culvert ok until 2026.				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Dave Lam	Previous Assistant's Name			
Next Inspection Date	03-May-2014	Previous Inspection Date	22-Nov-2005		
Inspection Cycle (Default) (months)	39				
Comment					