Bridge Culvert Inspection

Bridge File Number	71285 -1 Bridge Culvert	Form Type	CUL1
Year Built	1991	Lot No.	2
Bridge or Town Name	HIGHRIDGE	Inspector Name	Melanie Johnson
Located Over	TRIBUTARY TO PEMBINA RIVER, 8.11.84.29, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	654:04 C1 15.085	Assistant Class	
Water Body Cl./Year		Inspection Date	23-Aug-2011
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 1 TWP 59 RGE 2 W5M	Data Entry Date	14-Sep-2011
Longitude, Latitude	-114:10:11, 54:03:54	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	07-Sep-2011
Contract Main. Area	CMA10	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12 /	Dept. Review Date	15-Sep-2011
AADT/Year	470 / 2010 (A)	Follow-Up By	
Road Classification	RCU-211-110		
Detour Length (km)	20		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	1810	SP	42.1	152X51	3.0	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	South r/w.	Gas	
Power	2 lines 50 m west.	Municipal	
Others		Problem (Y/N)	No
Remarks	BF tag installed @ top of South end roof.		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to West, resident entrance to East. No passing.
Vertical Alignment		7	7	Recently patched
Roadway Width (m)	12.000			
Embankment		7	7	
Sideslope (__:1)	3.0			
(Height of Cover(m) : **3.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream 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	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Bevel End		8	7	
Heaving (mm)	100			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		8	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		8	7	
Beavers (Y/N)	No			Small amount of drift @ opening.
Upstream End General Rating		**8**	**7**	

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	23-Aug-2011			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	8	
Measured Rise (mm)	1810			
Measured At Ring No.	5			
Sag (mm)	0			
Percent Sag				
Sidewall		8	8	
Measured Span (mm)	1820			
Measured At Ring No.	5			
Deflection (mm)	10			
Percent Deflection	1			
Floor		8	8	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	8	
Separation (mm)				
Longitudinal Seams		8	8	
Total No. of Cracked Rings				
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				1N
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	Yes			
Coating		7	6	Minor superficial rust lower 1/3.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1810, Type: SP**)				
Fish Passage Adequacy		7	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**8**	

Downstream 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	
Bevel End		8	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		8	7	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		8	7	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**8**	**8**	

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	2011	Remove drift @ South opening.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**88.9/88.9**	**Sufficiency Rating (Last/Now) (%)**	**84.1/81.3**	Est. Repl. Yr	2045	Maint. Reqd. (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	Dave Lam	Previous Assistant's Name			
Next Inspection Date	23-Nov-2014	Previous Inspection Date	07-May-2008		
Inspection Cycle (Default) (months)	39				
Comment					