

Bridge Culvert Inspection			
Bridge File Number	77610 -1 Bridge Culvert	Form Type	CUL1
Year Built/Lined	1958/1989	Lot No.	4
Bridge or Town Name	LINDBERGH	Inspector Name	Kris Bosters
Located Over	MOOSEHILLS CREEK, 6.10, WATERCRS-ST	Inspector Class	BR CLS A
Located On	646:04 C1 16.407	Assistant Name	Brian Cote
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	10-Dec-2012
Legal Land Location	NE SEC 27 TWP 56 RGE 5 W4M	Data Entry By	Theresa Lacusta
Longitude, Latitude	-110:39:16, 53:52:18	Data Entry Date	15-Jan-2013
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Eric Carcoux
Contract Main. Area	CMA08	Review Date	19-Dec-2012
Clear Roadway/Skew	9.1 /	Dept. Reviewer Name	Paul Catt
AADT/Year	1,650 / 2011 (A)	Dept. Review Date	18-Jan-2013
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	5		

Bridge Culvert Information

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
2	MAIN FULL LINER	-	2200	MP	37	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Pipe located on superelevated curve. Steep grade West of pipe. Farm / oilfield entrance 100m West.
Vertical Alignment		5	5	
Roadway Width (m)	9.100			
Embankment		7	7	
Sideslope (___:1)	3.0			
(Height of Cover(m) : 4.1)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		5	5	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		6	6	Void @ 2:00 between liner and headwall. Form rods not cut and grouted.
Collar		8	N	Snow covered.
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	
Bevel End		7	N	Longer than standard length. Superficial rust.-07-Oct-2009
Heaving (mm)	100			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	N	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		5	N	Fill has dropped 500mm along East collar. Visible through snow, unsure if condition worsened.
Beavers (Y/N)	No			
Upstream End General Rating		5	5	Carried over.
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2 , Secondary Span, Location Code: MAIN , Span (mm): , Rise (mm): 2200 , Type: MP)				
Barrel Last Accessible Date	07-Oct-2009			Running water in culvert, not accessible.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		5	N	600mm wide top plate missing 7m from u/s end. Conc, fills void-from original const.(photo)-07-Oct-2009
Measured Rise (mm)	2176			
Measured At Ring No.				@ cl
Sag (mm)	24			
Percent Sag				
Sidewall		8	N	Liner looks OK from both ends. North end of the original pipe dented from liner installation. No problem.-07-Oct-2009
Measured Span (mm)	2214			
Measured At Ring No.				@ cl
Deflection (mm)	14			
Percent Deflection				
Floor		7	N	
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	N	
Separation (mm)				
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		5	N	Superficial rust on floor of the original culvert. -07-Oct-2009
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2200, Type: MP)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	High stream velocity and riprap at outlet make it difficult for fish to pass.
Baffle		X	X	
(Type :)				
Waterway Adequacy		6	6	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	Yes			
Barrel General Rating		5	N	Last rated 5 on 07-Oct-2009
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		6	N	Longer than standard bevel end. Superficial rust.-07-Oct-2009
Heaving (mm)	300			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	500			
Scour Protection		7	7	Visible through snow at/near stream bed at outlet.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 400)				
Scour/Erosion		7	5	Large scour pool @ D/S but culvert is well protected.
Beavers (Y/N)	No			
Downstream End General Rating		6	6	Carried over.
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		4	4	Large scour hole D/S. -seems stabilized. Banks d/s of scour are slumping.
HWM (m below Top of Culvert)				Not visible.
Drift (Y/N)	Yes			
Channel Bottom Degrading/Aggrading	DEGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				

Structure Usage				
		Last	Now	Explanation of Condition
Channel General Rating		4	4	

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) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	51.5/50.9	Est. Repl. Yr	2033	Maint. Req. (Y/N)	No
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	Shane Hall		Previous Assistant's Name				
Next Inspection Date	10-Mar-2016		Previous Inspection Date	07-Oct-2009			
Inspection Cycle (Default) (months)	39						
Comment							