

Bridge Culvert Inspection				
Bridge File Number	76171 -1 Bridge Culvert		Form Type	CULM
Year Built	1965		Lot No.	2
Bridge or Town Name	NORDEGG		Inspector Name	Owen Salava
Located Over	TRIBUTARY TO NORTH SASKATCHEWAN RIVER, 6.186, WATERCRS-ST		Inspector Class	BR CLS A
Located On	11:02 C1 18.324		Assistant Name	
Water Body Cl./Year			Assistant Class	
Navigabil. Cl./Year			Inspection Date	08-Feb-2012
Legal Land Location	NW SEC 19 TWP 35 RGE 17 W5M		Data Entry By	Marcia Chavez
Longitude, Latitude	-116:25:42, 52:01:39		Data Entry Date	06-Mar-2012
Road Authority	Alberta Transportation (AIT)		Reviewer Name	John O'Brien
Contract Main. Area	CMA18		Review Date	22-Feb-2012
Clear Roadway/Skew	12.2 / -30 deg. (LHF)		Dept. Reviewer Name	Andrew Smikles
AADT/Year	360 / 2010 (A)		Dept. Review Date	09-Mar-2012
Road Classification	RAU-213.4-120		Follow-Up By	
Detour Length (km)	300			

Bridge Culvert Information								
Number of Culverts	2							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	PI./Slab Thickness	Shape
1	MAIN	2489	1753	RP	42.7	152X51	3.5	PIPE ARCH
2	MAIN	2019	2226	SPE	42.7	152X51	3.5	ELLIPSE
Special Features	CONC FLOOR							
Special Features Comment								

Utilities (Located at)			
Utility Attachments			
Telephone	East r/w.	Gas	
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Crest curve to the south limiting sight distance. No passing SB.
Vertical Alignment		6	6	
Roadway Width (m)	12.200			
Embankment		7	7	
Sideslope (__:1)	4.0			
(Height of Cover(m) : 0.7)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		6	6	

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Span Type: Primary Span)				
Direction		W		South barrel.
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
(Pipe # : 1, Span Type: Primary Span)				
Cutoff Wall		X	X	
Bevel End		7	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			At streambed. Silted 150mm.
Above/Below (mm)	200			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1753, Type: RP)				
Barrel Last Accessible Date	08-Feb-2012			
Special Features				
Special Feature		5	5	Abraded 25mm on top.
(Type : CONC FLOOR)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				
Measured At Ring No.				
Sag (mm)	0			
Percent Sag				
Sidewall		7	7	
Measured Span (mm)	2500			
Measured At Ring No.	4			
Deflection (mm)	11			
Percent Deflection	0			
Floor		N	N	Concrete covered.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
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)	No			
Coating		6	6	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			

Bridge Culvert Barrel					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 2489, Rise (mm): 1753, Type: RP)					
Camber POS/ZERO/NEG	ZERO				
Ponding (Y/N)	No				
Fish Passage Adequacy		X	X	No flow, steep.	
Baffle		X	X		
(Type :)					
Waterway Adequacy		5	5	D/S 1/3 length silted to within 1.0m of roof at outlet.	
Icing (Y/N)	No				
Silting (Y/N)	Yes				
Drift (Y/N)	No				
Barrel General Rating		7	7		
Downstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 1, Span Type: Primary Span)					
Direction		E		South barrel.	
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	Minor superficial rust & damage to end, south side.	
Heaving (mm)	0				
Invert Above/Below Stream Bed	BELOW				
Above/Below (mm)	700				
Scour Protection		7	7		
(Type : RIP RAP)					
(Avg. Rock Size(mm) : 200)					
Scour/Erosion		7	7		
Beavers (Y/N)	No				
Downstream End General Rating		5	5		
Upstream End					
Culvert Component		Last	Now	Explanation of Condition	
(Pipe # : 2, Span Type: Secondary Span)					
Direction		W		North barrel.	
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
(Pipe # : 2, Span Type: Secondary Span)				
Bevel End		7	7	
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	400			
Scour Protection		7	7	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		7	7	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Barrel Last Accessible Date	08-Feb-2012			
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)	2204			
Measured At Ring No.	9			
Sag (mm)	22			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2059			
Measured At Ring No.	9			
Deflection (mm)	40			
Percent Deflection	2			
Floor		7	7	Some cobbles on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			
Longitudinal Seams		7	7	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				1N.
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)	No			
Longitudinal Stagger (Y/N)	Yes			
Coating		6	6	Superficial corrosion on floor.
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Secondary Span, Location Code: MAIN, Span (mm): 2019, Rise (mm): 2226, Type: SPE)				
Ponding (Y/N)	No			
Fish Passage Adequacy		4	4	Perched outlet.
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		7	7	
Downstream End				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 2, Span Type: Secondary Span)				
Direction		E		North barrel.
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	Minor superficial rust on sides & superficial rust on floor.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			End rotated 10 degrees counter clockwise.
Above/Below (mm)	1000			
Scour Protection		4	4	Perched 0.5m - photo.
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 200)				
Scour/Erosion		4	4	Erosion around/below bevel - photo.
Beavers (Y/N)	No			
Downstream End General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel (U/S and D/S)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Culvert)				HWM not visible.
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	2012	Class II, 5m3 D/S bevel at N pipe.								
REMOVE DRIFT ACCUMULATION										
INSTALL CONCRETE/STEEL LINING										
INSTALL STRUTS										
INSTALL CONCRETE COLLAR/CUTOFF										
REPAIR SEAMS										
OTHER ACTION	2012	Remove silt & rock from D/S 1/3 primary span.								
OTHER ACTION										
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now)	77.8/77.8	Sufficiency Rating (Last/Now)	59.0/59.0	Est. Repl. Yr	2024	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								
Next Inspection Date	08-Nov-2013	Previous Inspection Date	05-May-2010							
Inspection Cycle (Default) (months)	21									
Comment										

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
SHOTCRETE REPAIRS							
PLACE ADDITIONAL RIP RAP	2012	Class II, 5m3 D/S bevel at N pipe.	Programmed	2012			
REMOVE DRIFT ACCUMULATION							
INSTALL CONCRETE/STEEL LINING							
INSTALL STRUTS							
INSTALL CONCRETE COLLAR/CUTOFF							
REPAIR SEAMS							
OTHER ACTION	2012	Remove silt & rock from D/S 1/3 primary span.	Programmed	2012			
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	77.8/77.8	Sufficiency Rating (Last/Now) (%)	59.0/59.0	Est. Repl. Yr	2024	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection			Department Comments	DA			
Maintenance Reviewed By	Darron Ahlstedt		Date	05-Nov-2012	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				
Next Inspection Date	08-Nov-2013		Previous Inspection Date	05-May-2010			
Inspection Cycle (Default) (months)	21						
Comment							