

Bridge Culvert Inspection			
Bridge File Number	74551 -1 Bridge Culvert	Form Type	CULE
Year Built	1956	Lot No.	4
Bridge or Town Name	ALDERSYDE	Inspector Name	Jon Davies
Located Over	TRIBUTARY TO HIGHWOOD RIVER, 2.13.27.3, WATERCRS-ST	Inspector Class	BR CLS B
Located On	2:12 L1 13.984;2:12 R1 13.983	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	25-Oct-2011
Legal Land Location	NW SEC 7 TWP 20 RGE 28 W4M	Data Entry By	Alyssa Boynton
Longitude, Latitude	-113:52:43, 50:41:06	Data Entry Date	25-Nov-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA27	Review Date	08-Nov-2011
Clear Roadway/Skew	29.7 / -9 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	15,040 / 2010 (A)	Dept. Review Date	01-Dec-2011
Road Classification	RFD-412.4-130	Follow-Up By	
Detour Length (km)	1		

**Bridge Culvert Information**

Number of Culverts	1							
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	1524	2136	BP	73.1			RECTANGLE
1	D/S	-	2438	SP	53.1	152X51	4.0	ROUND
Special Features	BARREL ELBOW							
Special Features Comment								

**Utilities (Located at)**

Utility Attachments			
Telephone		Gas	
Power	W. of tracks - 3 wire	Municipal	
Others	1 wire @ east	Problem (Y/N)	No
Remarks			

**Approach Road / Embankment**

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve to north 300m.
Vertical Alignment		9	9	
Roadway Width (m)	29.700			
Embankment		5	4	D/S East embankment slope stability problem. Slump is 10m wide x 15m long and 1m deep. Does not impact the service road.
Sideslope (___:1)	3.0			
(Height of Cover(m) : 8)				
Guardrail (Y/N)	Yes			
<b>Approach Road / Embankment General Rating</b>		<b>7</b>	<b>7</b>	

**Upstream End**

Culvert Component		Last	Now	Explanation of Condition
Direction		W		West end.
End Treatment (Concrete, Steel, Others, None)	CONCRETE			Dimensions of box cell 1828 x 2438.
Headwall		5	5	Crack @ top of headwall corner-6mm wide.- still functional Spall associated with crack.
Collar		X	X	
Wingwalls		6	6	Cracking (Vertical) @ Center of each wingwall
(Shape : <b>FLARE</b> )				

Upstream End				
Culvert Component		Last	Now	Explanation of Condition
Cutoff Wall		N	N	Water and silt covered.
Bevel End		X	X	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	200			
Scour Protection		6	6	
(Type : <b>NATURAL</b> )				
(Avg. Rock Size(mm) : )				
Scour/Erosion		6	6	
Beavers (Y/N)	No			
<b>Upstream End General Rating</b>		<b>5</b>	<b>5</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
<b>(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1524, Rise (mm): 2136, Type: BP)</b>				
Barrel Last Accessible Date	25-Oct-2011			
<b>Special Features</b>				
Special Feature				Main D/S span connected with 2m long transition section of cip box culver 2.2m sp x 2.6m rise
(Type : )				
Special Feature				SPCSP liner in original concrete box - 1524 x 2136
(Type : )				
Roof		8	7	Unable to verify due to uneven concrete floor. EST. General shape of liner is good.
Measured Rise (mm)	2136			
Measured At Ring No.	6			
Sag (mm)	0			
Percent Sag	1			
Sidewall		8	7	Inward.
Measured Span (mm)	1510			
Measured At Ring No.	6			
Deflection (mm)	14			
Percent Deflection	1			
Floor		N	N	Longitudinal angle iron and uneven and rough concrete floor.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		X	7	SPCSP liner.
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		6	6	Soil staining at upper seams and water seepage rust staining at lower bolt holes.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: MAIN, Span (mm): 1524, Rise (mm): 2136, Type: BP)				
Ponding (Y/N)	No			
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			
<b>Barrel General Rating</b>		<b>8</b>	<b>7</b>	
Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2438, Type: SP)				
Barrel Last Accessible Date	25-Oct-2011			
<b>Special Features</b>				
Special Feature			7	2 elbows in 2438 SPCSP extension
(Type : <b>BARREL ELBOW</b> )				
Special Feature				
(Type : )				
Roof		8	7	
Measured Rise (mm)	2507			
Measured At Ring No.	9			Upward.
Sag (mm)	69			
Percent Sag	3			
Sidewall		8	7	
Measured Span (mm)	2390			
Measured At Ring No.	9			Inward.
Deflection (mm)	48			
Percent Deflection	2			
Floor		N	7	Minor corrosion on floor.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	7	
Separation (mm)	0			
Longitudinal Seams		6	6	Bolts tipped and 4mm nesting gap at sidewall seams near D/S elbow
Total No. of Cracked Rings	0			No stagger D/S of elbow. 1N stagger in main barrel
Total No. of Rings with Two Cracked Seams	0			
Min. Remaining Steel Between Cracks (mm)	0			
Proper Lap (Y/N)	Yes			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Floor coating showing signs of minor corrosion
Corrosion By Soil (Y/N)	Yes			Soil corrosion at upper seams
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		Last	Now	Explanation of Condition
(Pipe # : 1, Primary Span, Location Code: D/S, Span (mm): , Rise (mm): 2438, Type: SP)				
Ponding (Y/N)	No			
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			
<b>Barrel Extension General Rating</b>		<b>7</b>	<b>7</b>	

Downstream End				
Culvert Component		Last	Now	Explanation of Condition
Direction		E		East end.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape : )				
Cutoff Wall		X	N	Water covered.
Bevel End		6	5	BENT INWARD 100 mm @ NORTH- Small tear in South side. Inward bent at North from embankment slump.
Heaving (mm)	150			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	6	
(Type : RIP RAP)				
(Avg. Rock Size(mm) : 300)				
Scour/Erosion		N	6	
Beavers (Y/N)	No			
<b>Downstream End General Rating</b>		<b>N</b>	<b>5</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel (U/S and D/S)</b>				
Alignment		6	6	RxR culvert 20m U/S
Bank Stability		7	7	
HWM (m below Top of Culvert)				No visible HWM
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	AGGRADING			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
<b>Channel General Rating</b>		<b>6</b>	<b>6</b>	

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							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>77.8/77.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>71.0/71.0</b>	Est. Repl. Yr	2036	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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	25-Jul-2013		Previous Inspection Date	10-Feb-2010			
Inspection Cycle (Default) (months)	21						
Comment							