Bridge Culvert Inspection

Bridge File Number	73885 -1 Bridge Culvert	Form Type	CULE
Year Built	1952	Lot No.	2
Bridge or Town Name	BROOKS	Inspector Name	Jon Davies
Located Over	TRAIL-ANIMAL, OVER SP	Inspector Class	BR CLS B
Located On	1:18 R1 1.618;1:18 L1 1.636	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	05-Feb-2012
Legal Land Location	NE SEC 23 TWP 19 RGE 15 W4M	Data Entry By	Lauren Korte
Longitude, Latitude	-111:58:14, 50:37:47	Data Entry Date	08-Mar-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA23	Review Date	12-Feb-2012
Clear Roadway/Skew	25.4 /	Dept. Reviewer Name	Tim Davies
AADT/Year	7,860 / 2010 (A)	Dept. Review Date	11-Mar-2012
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	1980	1980	BP	14.6			RECTANGLE
1	D/S	2560	2310	RPE	44.5			ELLIPSE
Special Features								
Special Features Comment								

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)		No									
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)		In Advance (Y/N)
Remarks	Not required										

Utilities (Located at)

Utility Attachments			
Telephone	North ROW.	Gas	CROSSING 50 m EAST
Power	N side, 1 wire 35m FROM C.L.	Municipal	
Others	Fibre optic cable North ROW.	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Intersection to east. 20 m.
Vertical Alignment		9	9	
Roadway Width (m)	25.400			
Embankment		5	5	Road is within 1.0m of South end
Sideslope (__:1)	4.0			
(Height of Cover(m) : **0.5**)				
Guardrail (Y/N)	Yes			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		Last	Now	Explanation of Condition
Direction		N		North
End Treatment (Concrete, Steel, Others, None)	STEEL			

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	MOWER DAMAGE AT ROOF.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	300			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Upstream End General Rating		**5**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1980, Rise (mm): 1980, Type: BP**)				
Barrel Last Accessible Date	05-Feb-2012			Concrete box
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	
Measured Rise (mm)				Estimate.
Measured At Ring No.				
Sag (mm)	0			
Percent Sag	0			
Sidewall		7	7	
Measured Span (mm)	1980			
Measured At Ring No.	1			
Deflection (mm)	0			
Percent Deflection	0			
Floor		N	N	DIRT COVERED - 200 mm.
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		X	X	Const. joint only
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): 1980, Rise (mm): 1980, Type: BP**)				
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		X	X	
Corrosion By Soil (Y/N)				
Corrosion By Water (Y/N)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	200mm of dirt on the floor- also handles drainage
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**7**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): 2560, Rise (mm): 2310, Type: RPE**)				
Barrel Last Accessible Date	05-Feb-2012			SPCSP
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	7	ESTIMATED
Measured Rise (mm)	2270			
Measured At Ring No.	5			
Sag (mm)	40			
Percent Sag	1			
Sidewall		7	7	
Measured Span (mm)	2600			
Measured At Ring No.	5			
Deflection (mm)	40			
Percent Deflection	2			
Floor		N	N	DIRT COVERED - 200 mm.
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	0			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: D/S, Span (mm): 2560, Rise (mm): 2310, Type: RPE**)				
Longitudinal Seams		5	5	Poor nesting @ roof line - gaps to 4 mm. @ ring # 4.
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)	No			
Longitudinal Stagger (Y/N)	No			
Coating		5	5	Minor white stains @ roof seam. MINOR SUPERFICIAL CORROSION @ U/S BEVEL.
Corrosion By Soil (Y/N)	Yes			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	200mm of dirt on the floor- also handles drainage
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating		**5**	**5**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		S		South
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		4	4	Scaling & SPALLING
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		5	5	ISOLATED MEDIUM SCALING.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		7	7	
(Type : **NATURAL**)				
(Avg. Rock Size(mm) :)				
Scour/Erosion		7	7	
Beavers (Y/N)	No			
Downstream End General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	FENCE NOT ATTACHED AT SOUTH.
Roadway Surface		7	7	
(Type : **SOIL**)				
Icing (Y/N)	No			
Traffic Safety Features		X	X	
Type				
Lighting		X	X	
Barrel Leakage (Y/N)	No			
Drainage		5	5	
Structure In Use (Y/N)	Yes			
Grade Separation General Rating		**5**	**5**	

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	Repair South headwall- Approximately 0.1 m3				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**59.6/59.6**	Est. Repl. Yr	2032	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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	05-Nov-2013	Previous Inspection Date	15-Jul-2010
Inspection Cycle (Default) (months)	21		
Comment			