Bridge Culvert Inspection

Bridge File Number	73842 -1 Bridge Culvert	Form Type	CULE
Year Built/Lined	1955/1987	Lot No.	4
Bridge or Town Name	BEISEKER	Inspector Name	Jon Davies
Located Over	WID - IRRIGATION C, WATERCRS-IC	Inspector Class	BR CLS B
Located On	9:02 C1 21.200	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	24-Nov-2011
Legal Land Location	NE SEC 14 TWP 26 RGE 27 W4M	Data Entry By	Anne Roberts
Longitude, Latitude	-113:40:03, 51:13:36	Data Entry Date	22-Dec-2011
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA29	Review Date	05-Dec-2011
Clear Roadway/Skew	12 /	Dept. Reviewer Name	Tim Davies
AADT/Year	2,390 / 2010 (A)	Dept. Review Date	10-Jan-2012
Road Classification	RAU-212-110	Follow-Up By	
Detour Length (km)	3		

Bridge Culvert Information

Number of Culverts	2

Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
2	U/S FULL LINER	-	1600	MP	17	125X26	2.8	ROUND
2	MAIN FULL LINER	-	1524	MP	20	125X26	3.0	ROUND
2	D/S FULL LINER	-	1600	MP	17	125X26	2.8	ROUND
3	U/S FULL LINER	-	1600	MP	17	125X26	2.8	ROUND
3	MAIN FULL LINER	-	1524	MP	20	125X26	2.8	ROUND
3	D/S FULL LINER	-	1600	MP	17	125X26	2.8	ROUND

Special Features	
Special Features Comment	

Utilities (Located at)

Utility Attachments			
Telephone	East R/W	Gas	
Power		Municipal	
Others	Fibre optic cable East ROW	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Limited sight distance in both directions due to crest curve both ends.
Vertical Alignment		5	5	
Roadway Width (m)	14.000			
Embankment		5	8	New side slopes - highway road widening 3:1 above U/S and D/S pipes.
Sideslope (__:1)	4.0			
(Height of Cover(m) : **2.3**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**5**	**5**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Primary Span**)				
Direction		W		West end, north pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		6	X	
Collar		X	X	
Wingwalls		6	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	9	New bevel end.
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		5	9	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	24-Nov-2011			North pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			8	Roof shape is good
Measured Rise (mm)	1600			
Measured At Ring No.				
Sag (mm)	0			Estimate
Percent Sag	0			
Sidewall			8	
Measured Span (mm)	1596			D/S of main
Measured At Ring No.	2			
Deflection (mm)	4			Inward
Percent Deflection	0			
Floor			N	Ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			8	
Separation (mm)	20			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Primary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP**)				
Longitudinal Seams			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			8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating			**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Barrel Last Accessible Date	24-Nov-2011			North pipe.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	@ midspan
Measured Rise (mm)	1565			
Measured At Ring No.	2			
Sag (mm)	35			
Percent Sag	2			
Sidewall		7	6	
Measured Span (mm)	1620			
Measured At Ring No.	1			
Deflection (mm)	20			
Percent Deflection	1			
Floor		6	N	PR 6 - ice covered
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	20			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Longitudinal Seams		X	X	
Total No. of Cracked Rings	0			
Total No. of Rings with Two Cracked Seams				
Min. Remaining Steel Between Cracks (mm)				
Proper Lap (Y/N)				
Longitudinal Stagger (Y/N)				
Coating		5	5	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Primary Span**)				
Direction		E		East end, north pipe.
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		6	X	
Collar		X	X	
Wingwalls		5	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	9	New bevel
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		6	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	9	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**9**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Span Type: Secondary Span**)				
Direction		W		West end, south pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		6	X	
Collar		X	X	
Wingwalls		6	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	9	New bevel
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		5	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		5	9	
Beavers (Y/N)	No			
Upstream End General Rating		**6**	**9**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	24-Nov-2011			South pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof			8	Roof shape is good
Measured Rise (mm)	1600			
Measured At Ring No.				Estimate
Sag (mm)	0			
Percent Sag	0			
Sidewall			8	
Measured Span (mm)	1588			
Measured At Ring No.	1			Inward
Deflection (mm)	12			
Percent Deflection	1			
Floor			N	Ice covered
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams			8	
Separation (mm)	35			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: U/S, Span (mm): , Rise (mm): 1600, Type: MP**)				
Longitudinal Seams			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			8	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy			7	
Baffle			X	
(Type :)				
Waterway Adequacy			8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel Extension General Rating			**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
Barrel Last Accessible Date	24-Nov-2011			South pipe - Main
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		7	6	Too much ice to measure, general shape is good.
Measured Rise (mm)	1550			
Measured At Ring No.				Estimate
Sag (mm)	50			
Percent Sag	3			
Sidewall		7	6	
Measured Span (mm)	1617			
Measured At Ring No.	1			
Deflection (mm)	17			
Percent Deflection	1			
Floor		6	N	Ice covered through out. PR. 6
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		7	7	
Separation (mm)	20			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1524, Type: MP**)				
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	5	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	7	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**7**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **3, Span Type: Secondary Span**)				
Direction		E		South pipe
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		6	X	
Collar		X	X	
Wingwalls		5	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		X	9	New bevel
Heaving (mm)	0			
Invert Above/Below Stream Bed	ABOVE			
Above/Below (mm)	100			
Scour Protection		6	9	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **300**)				
Scour/Erosion		6	9	
Beavers (Y/N)	No			
Downstream End General Rating		**6**	**9**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		4	4	U/S and D/S channel at 90 degrees to inlet and outlet of culvert
Bank Stability		5	5	
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		**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) (%)	**77.8/66.7**	**Sufficiency Rating (Last/Now) (%)**	**71.2/72.0**	Est. Repl. Yr	2028	Maint. Reqd. (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	Jason Rusu	Previous Assistant's Name	
Next Inspection Date	24-Aug-2013	Previous Inspection Date	29-Apr-2008
Inspection Cycle (Default) (months)	21		
Comment			