Bridge Culvert Inspection

Bridge File Number	08366 -1 Bridge Culvert	Form Type	CULM
Year Built	1988	Lot No.	4
Bridge or Town Name	STAND OFF	Inspector Name	Jason Rusu
Located Over	2ND ORDER TRIBUTARY TO BELLY RIVER, 2.12.22.4.1, WATERCRS-ST	Inspector Class	BR CLS A
		Assistant Name	
Located On	2:06 C1 7.158	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Oct-2011
Navigabil. Cl./Year		Data Entry By	Alyssa Boynton
Legal Land Location	NW SEC 4 TWP 7 RGE 25 W4M	Data Entry Date	18-Nov-2011
Longitude, Latitude	-113:20:37, 49:32:06	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	09-Nov-2011
Contract Main. Area	CMA26	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	12.1 /	Dept. Review Date	21-Nov-2011
AADT/Year	1,520 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
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
1	MAIN	-	1600	MP	26	68X13	2.8	ROUND
2	MAIN	-	1600	MP	26	68X13	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone	West ditch	Gas	
Power		Municipal	
Others	Fibre Optic West Ditch	Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	Asphalt patch over pipes.
Vertical Alignment		9	9	
Roadway Width (m)	12.100			
Embankment		7	7	4:1 on east side.
Sideslope (__:1)	3.0			
(Height of Cover(m) : **0.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**9**	**9**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		W		South pipe W. end.
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		N	5	Roof dented in 200mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	7	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**5**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	09-Oct-2011			SOUTH PIPE
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	6	Roof dented in at inlet - 200 mm
Measured Rise (mm)	1560			
Measured At Ring No.	3			
Sag (mm)	40			
Percent Sag	3			
Sidewall		N	6	
Measured Span (mm)	1660			
Measured At Ring No.	3			
Deflection (mm)	60			
Percent Deflection	4			
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		N	6	
Separation (mm)	20			
Longitudinal Seams		X	X	
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)				
Longitudinal Stagger (Y/N)				
Coating		N	5	(Minor superficial corrosion at isolated floor area)
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): , Rise (mm): 1600, Type: MP**)				
Camber POS/ZERO/NEG	NEG			
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**6**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction		E		EAST END - SOUTH PIPE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	7	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	7	Ingrown
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**7**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		W		West end N. pipe.
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		N	6	Dent at roof 200mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	100			
Scour Protection		N	7	Ingrown.
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **250**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Upstream End General Rating		**7**	**6**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Barrel Last Accessible Date	09-Oct-2011			North pipe
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		N	7	
Measured Rise (mm)	1580			
Measured At Ring No.	2			
Sag (mm)	20			
Percent Sag	1			
Sidewall		N	7	
Measured Span (mm)	1620			
Measured At Ring No.	2			
Deflection (mm)	20			
Percent Deflection	1			
Floor		N	6	
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	6	
Separation (mm)	20			
Longitudinal Seams		X	X	
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)				
Longitudinal Stagger (Y/N)				
Coating		N	6	(Minor superficial corrosion at isolated floor area)
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	Yes			
Camber POS/ZERO/NEG	NEG			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 1600, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		X	X	
Baffle		X	X	
(Type :)				
Waterway Adequacy		7	7	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**N**	**7**	

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction		E		EAST END OF NORTH PIPE
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		N	5	Dented at roof 200mm.
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	150			
Scour Protection		N	7	Ingrown
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **200**)				
Scour/Erosion		N	7	
Beavers (Y/N)	No			
Downstream End General Rating		**7**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	Makes 90 deg turn into inlet. LOW SHALLOW BANKS @ D/S (DUGOUT APPROX. 100 m D/S)
Bank Stability		7	7	
HWM (m below Top of Culvert)	1.0			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**)				
Channel 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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/66.7**	**Sufficiency Rating (Last/Now) (%)**	**64.5/65.7**	Est. Repl. Yr	2038	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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	09-Jul-2013	Previous Inspection Date	22-Jan-2010
Inspection Cycle (Default) (months)	21		
Comment			