Bridge Culvert Inspection

Bridge File Number	13953 -1 Bridge Culvert	Form Type	CULM
Year Built	1998	Lot No.	4
Bridge or Town Name	DEL BONITA	Inspector Name	Jason Rusu
Located Over	SHANKS CREEK, 1.21.5, WATERCRS-ST	Inspector Class	BR CLS A
Located On	501:02 C1 40.455	Assistant Name	
Water Body Cl./Year		Assistant Class	
Navigabil. Cl./Year		Inspection Date	09-Jun-2012
Legal Land Location	SE SEC 15 TWP 1 RGE 22 W4M	Data Entry By	Kelsey Roberts
Longitude, Latitude	-112:51:29, 49:01:42	Data Entry Date	20-Jul-2012
Road Authority	Alberta Transportation (AIT)	Reviewer Name	Garry Roberts
Contract Main. Area	CMA25	Review Date	10-Jul-2012
Clear Roadway/Skew	9 / -15 deg. (LHF)	Dept. Reviewer Name	Tim Davies
AADT/Year	310 / 2011 (A)	Dept. Review Date	30-Jul-2012
Road Classification	RCU-209-110	Follow-Up By	
Detour Length (km)	4		

Bridge Culvert Information

Number of Culverts		2						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	3000	MP	38	125X26	2.8	ROUND
2	MAIN	-	3000	MP	38	125X26	2.8	ROUND
Special Features								
Special Features Comment								

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others		Problem (Y/N)	
Remarks	None visible		

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		7	7	
Roadway Width (m)	9.000			
Embankment		8	8	
Sideslope (__:1)	7.0			
(Height of Cover(m) : **1**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction				SE
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	Some hairline cracks
Collar		8	8	
Wingwalls		X	X	
(Shape :)				

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Barrel Last Accessible Date	17-Jun-2009			E pipe
Special Features				
Special Feature				Viewed from ends- no change apparent since last inspection.
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	Shape is excellent
Measured Rise (mm)	3025			P.R. 8
Measured At Ring No.	2			
Sag (mm)	25			
Percent Sag	1			
Sidewall		8	N	inward
Measured Span (mm)	2383			P.R. 8
Measured At Ring No.	2			
Deflection (mm)	17			
Percent Deflection	1			
Floor		7	N	P.R. 7
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	N	P.R. 8
Separation (mm)	20			
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		8	N	P.R. 8
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**N**	P.R. 8

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Span Type: Primary Span**)				
Direction				NE
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	Some hairline cracks Some minor spall from riprap inst
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction				SW
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	Some hairline cracks
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	

Upstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	700			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Upstream End General Rating		**8**	**8**	

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Barrel Last Accessible Date	17-Jun-2009			W pipe Barrel not accessible- deep water
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	Shape looks very good- P.R. 8
Measured Rise (mm)	3019			
Measured At Ring No.	2			
Sag (mm)	19			
Percent Sag	1			
Sidewall		8	N	inward P.R. 8
Measured Span (mm)	2996			
Measured At Ring No.	2			
Deflection (mm)	4			
Percent Deflection	0			
Floor		7	N	P.R. 7
Bulge (mm)	0			
Measured At Ring No.				
Abrasion (Y/N)	No			
Circumferential Seams		8	N	P.R. 8
Separation (mm)	30			
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		8	N	P.R. 8
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Secondary Span, Location Code: MAIN, Span (mm): , Rise (mm): 3000, Type: MP**)				
Ponding (Y/N)	No			
Fish Passage Adequacy		8	8	
Baffle		X	X	
(Type :)				
Waterway Adequacy		8	8	
Icing (Y/N)	No			
Silting (Y/N)	No			
Drift (Y/N)	No			
Barrel General Rating		**8**	**N**	P.R. 8

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **2, Span Type: Secondary Span**)				
Direction				NW
End Treatment (Concrete, Steel, Others, None)	CONCRETE			
Headwall		8	8	
Collar		8	8	some hairline cracks
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		N	N	
Bevel End		8	8	
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	500			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **500**)				
Scour/Erosion		8	8	
Beavers (Y/N)	No			
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		6	6	Curves both ends
Bank Stability		8	8	
HWM (m below Top of Culvert)				HWM not visible
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading	NONE			
Beavers (Y/N)	No			
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**6**	

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) (%)	**88.9/55.6**	**Sufficiency Rating (Last/Now) (%)**	**86.9/71.6**	Est. Repl. Yr	2056	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-Sep-2015	Previous Inspection Date	17-Jun-2009		
Inspection Cycle (Default) (months)	39				
Comment					