Bridge Culvert Inspection

Bridge File Number	77444 -2 Bridge Culvert	Form Type	CUL1
Year Built	2003	Lot No.	2
Bridge or Town Name	WINTERBURN	Inspector Name	Todd Warshawski
Located Over	TRIBUTARY TO ATIM CREEK, 6.65.8.2, WATERCRS-ST	Inspector Class	BR CLS B
		Assistant Name	
Located On	44:00 C1 2.381	Assistant Class	
Water Body Cl./Year		Inspection Date	16-Apr-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 20 TWP 53 RGE 26 W4M	Data Entry Date	30-Apr-2013
Longitude, Latitude	-113:48:46, 53:35:20	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	29-Apr-2013
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12.2 / 30 deg. (RHF)	Dept. Review Date	01-May-2013
AADT/Year	7,140 / 2012 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	6		

Bridge Culvert Information

Number of Culverts		1						
Pipe #	Barrel	Span	Rise (or Dia.)	Type	Length	Corr. Profile	Pl./Slab Thickness	Shape
1	MAIN	-	2400	MP	39	125X26	2.8	ROUND
Special Features								
Special Features Comment		BF tag has been torn off.						

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	25 m north.
Power	1 wire East r/w, crosses Hwy 44 10m North.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road / Embankment

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Access roads North & South. Curves to West 300m North. No passing both directions.
Vertical Alignment		9	9	
Roadway Width (m)	12.200			
Embankment		9	8	
Sideslope (__:1)	4.0			
(Height of Cover(m) : **0.8**)				
Guardrail (Y/N)	No			
Approach Road / Embankment General Rating		**7**	**7**	

Upstream End

Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		W		
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**
Bevel End		8	8	Lower 1/2 not viewed/rated
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **450**)				
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): 2400, Type: MP**)				
Barrel Last Accessible Date	30-Sep-2009			WL 1.6m deep could not enter barrel.
Special Features				
Special Feature				
(Type :)				
Special Feature				
(Type :)				
Roof		8	N	Viewed from ends, looks good.
Measured Rise (mm)	2441			At c/l.
Measured At Ring No.				Upward.
Sag (mm)	41			
Percent Sag				
Sidewall		8	N	
Measured Span (mm)	2365			At c/l.
Measured At Ring No.				Inward.
Deflection (mm)	35			
Percent Deflection	1			
Floor		N	N	Covered in silt.-July-2011
Bulge (mm)				
Measured At Ring No.				
Abrasion (Y/N)				
Circumferential Seams		N	N	
Separation (mm)	10			
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		N	N	
Corrosion By Soil (Y/N)	No			
Corrosion By Water (Y/N)	No			
Camber POS/ZERO/NEG	ZERO			
Ponding (Y/N)	No			

Bridge Culvert Barrel				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
(Pipe # : **1, Primary Span, Location Code: MAIN, Span (mm): , Rise (mm): 2400, Type: MP**)				
Fish Passage Adequacy		7	7	
Baffle		N	N	
(Type :)				
Waterway Adequacy		6	6	0.6m silt.-July-2011
Icing (Y/N)	No			
Silting (Y/N)	Yes			
Drift (Y/N)	No			
Barrel General Rating		**N**	**N**	GR was 8 from Sept-2009

Downstream End				
Culvert Component		**Last**	**Now**	**Explanation of Condition**
Direction		E		
End Treatment (Concrete, Steel, Others, None)	STEEL			
Headwall		X	X	
Collar		X	X	
Wingwalls		X	X	
(Shape :)				
Cutoff Wall		X	X	
Bevel End		8	8	Lower 1/2 not viewed/rated
Heaving (mm)	0			
Invert Above/Below Stream Bed	BELOW			
Above/Below (mm)	600			
Scour Protection		8	8	
(Type : **RIP RAP**)				
(Avg. Rock Size(mm) : **400**)				
Scour/Erosion		8	8	
Beavers (Y/N)	Yes			Recent removals, debris on slopes.
Downstream End General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel (U/S and D/S)				
Alignment		5	5	90 degree bend U/S.
Bank Stability		7	7	
HWM (m below Top of Culvert)	0.8			Water level, April-2013
Drift (Y/N)	No			
Channel Bottom Degrading/Aggrading				Stable.
Beavers (Y/N)	Yes			
(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	2013	Remove debris pile from r/w.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**59.5/59.5**	Est. Repl. Yr	2056	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	As this structure has not been accessed for 2 or more cycles, a LEvel 2 inspection is required as per Bim Manual Section 13.9.1.5. Based on observed site evaluations we are recommending that be deferred to a later date.	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	16-Jan-2015	Previous Inspection Date	06-Jul-2011		
Inspection Cycle (Default) (months)	21				
Comment					