Bridge Inspection

Bridge File Number	73636 -1 Bridge	Form Type	SG
Year Built/Year Supstr	1960/1960	Lot No.	2
		Inspector Name	Jason Rusu
Bridge or Town Name	PINCHER CREE	Inspector Class	BR CLS A
Located Over	PINCHER CREEK, 2.12.31, WATERCRS-ST	Assistant Name	
Located On	6:04 C1 44.399	Assistant Class	
Water Body Cl./Year		Inspection Date	30-Oct-2011
Navigabil. Cl./Year		Data Entry By	Erin Roberts
Legal Land Location	NE SEC 23 TWP 6 RGE 30 W4M	Data Entry Date	29-Nov-2011
Longitude, Latitude	-113:56:11, 49:29:30	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	12-Nov-2011
Contract Main. Area	CMA26	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	11 /	Dept. Review Date	01-Dec-2011
AADT/Year	3,470 / 2010 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	3		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks	Not req.							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	Hazard markers erected at incorrect height above roadway. Slightly High.
Other Sign Types	Creek ID.

Utilities (Located at)

Utility Attachments			
Telephone	Conduit attached to West steel girder.	Gas	40m North.
Power	4 wire OH East of c/l.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	In controlled speed zone (50 km/hr). Curve 80m North. Local entrances and streets at all corners.
Vertical Alignment		7	7	
Roadway Width (m)	11.800			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			Missing 6 splice bolts at SW, 4 at NE
Guardrail		4	4	
Length (m)	15.000			Not thriebeam
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN ENDS			
Drainage		5	5	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **RB, 3 Spans, Lengths(m): 10.7-13.7-10.7, A-Ident Number: A0999-75;A1443-01;A1443-02;A1443-03**)			
Special Features			
Special Feature			
(Type :)			
Special Feature			
(Type :)			

Wearing Surface/Deck Top Detail Ratings	N (%)	1 (%)	2 (%)	3 (%)
Last	0	0	0	0
Now	0.0	0.0	0.0	0.0

Wearing Surface	5	5	Numerous map, transverse cracks 2mm wide on some.
(Material Type : **CONCRETE**)			
(Thickness(mm) : **50**)			
Deck Top	N	N	
Deck Rideability	7	7	
Deck Joints	6	6	Galv. buffer angles
Temperature (deg. C)			
(Expansion Type :)			
(Fixed Type :)			

Gap Size (mm)	Gap Location

Deck Drainage	7	7	
Drains Clogged (Y/N)	No		
Curbs/Median	3	3	Scaling along curb face with exposed rebar. Damage SE corner.
(Curb Type : **Standard**)			
Scaling (Percent Area)	30		
Bridge Rail	5	5	Double layer flexbeam.
(Type : **GALVANIZED STEEL FLEX BEAM**)			
Bridge Rail Posts	7	7	
(Type : **POST STEEL;POST STEEL**)			
Bridge Rail/Posts Coating	4	4	Posts painted white; 10% rust.
(Type : **PAINT**)			
Sidewalk	X	X	
Girder/Beam			
Cover Plate	X	X	Steel girders cast directly into top of concrete abutments/piers. Steel girders were retrofit under original CIP deck slab. Steel bearing plates betwene top flange and deck.
Flange	6	6	
Web	6	6	
Stiffeners	X	X	
Splice	X	X	
Weld	X	X	
Diaphragms/Cross Frame	5	5	Bracing all welded to top / bottom flanges.

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **RB, 3 Spans, Lengths(m): 10.7-13.7-10.7, A-Ident Number: A0999-75;A1443-01;A1443-02;A1443-03**)				
Paint Condition		4	4	Rusting (2%) mostly on the bottom all interiors flanges of exterior girders.
(Colour Description : **GREEN**)				
(Colour Code : **;14090**)				
Touchup Required (Y/N)	No			
Bearings		N	N	integral to concrete
Temperature (deg. C)	4			
(Expansion Type :)				
(Fixed Type :)				
Coating Adequate (Y/N)				
Functioning (Y/N)				
Deck Underside		5	5	Leaching through cracks in curb areas. Hairline random cracks. Concrete chipped out over SG girders at the pier end of both approach spans.
Stains (Percent Area)	5			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**5**	**5**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		N	N	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		5	5	Minor spall at SE
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-SOLID**)				Piers integral to CIP original deck.
Bearing Seats/Caps		5	5	Short narrow vertical cracks under SG. Medium vertical cracks every approx 3.0m.
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0**)				Scaling & abrasion @ bottom of piers where original substructure was reused.
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	Yes			Drift at P1
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)	4.0			Drift at P1
Drift (Y/N)	Yes			
Slope Protection		4	4	Class II riprap placed in 2003 along SW bank. Filter fabric exposed and rock washed out @ SW
(Type : **RIP RAP; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		6	6	
(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 #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
RETROFIT BRIDGE RAIL						
SEAL CURBS	2012	patch at SE curb, and 3 other areas 3m2				
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP	2012	20m3 class 2 @ SW				
REMOVE DRIFT ACCUMULATION	2012	Drift at P2				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**57.7/57.4**	Est. Repl. Yr	2030	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	30-Jul-2013	Previous Inspection Date	19-Oct-2009		
Inspection Cycle (Default) (months)	21				
Comment					