

Bridge Inspection							
Bridge File Number	01974 -1 Bridge			Form Type	PCS		
Year Built/Year Supstr	1955/1955			Lot No.	1		
Bridge or Town Name	TROCHU			Inspector Name	Dave Lam		
Located Over	TRIBUTARY TO GHOSTPINE CREEK, 3.50.14, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	585:02 C1 2.367			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	14-Jul-2011		
Legal Land Location	SE SEC 16 TWP 33 RGE 23 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-113:12:20, 51:49:25			Data Entry Date	15-Aug-2011		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA20			Review Date	27-Jul-2011		
Clear Roadway/Skew	9.1 /			Dept. Reviewer Name	Chris Black		
AADT/Year	630 / 2010 (A)			Dept. Review Date	30-Aug-2011		
Road Classification	RCU-208-110			Follow-Up By			
Detour Length (km)	6						
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 66 GIRDER	---> 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	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks	Not required.							
Hazard Marker At Bridge (Y/N)	No							
Remarks	Not required.							
Other Sign Types								

Utilities (Located at)			
Utility Attachments			
Telephone	South ditch.		Gas
Power	3 wire O/H-N fence line.		Municipal
Others			Problem (Y/N) No
Remarks	Conduit attached to S curb.		

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Driveway approaches on both sides of the East end of bridge. Crest curve to East.
Vertical Alignment		7	7	
Roadway Width (m)	8.500			
Approach Bump		5	5	Minor bump at both ends of bridge, frost heave 50m West.
Guardrail (Y/N)	Yes			
Guardrail		5	5	Several dents & bends but functioning. Not attached to bridge. NE end should be turned down or type VI radius. Type VI @ SE corner. NW & SW - 23.1m, NE - 19.3m, SE - 7.9m.
Length (m)	7.900			
Current Standard (Y/N)	No			
Termination Type	TURNDOWN ENDS			
Drainage		6	6	
Approach Road General Rating		7	7	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PGO, 3 Spans, Lengths(m): 6.1-6.1-6.1, A-Ident Number:)					
Special Features					
Special Feature			N		
(Type : CARBON FIBRE)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	(75mm thick under ACP wearing surface. 16Mar2005). Type PGO typically includes a std reinforced concrete overlay so ACP above this.
Last					
Now	0.0	0.0	0.0	0.0	
Wearing Surface			6	6	Random transverse cracking, wide crack over both piers width of deck. Grout/timber spacer failed between G5/G6 all spans - photo. ACP stops 150mm short of curb, typical both sides (photo).
(Material Type : ACP)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)		No			
Deck Top			X	X	
Deck Rideability			6	6	
Deck Joints			X	X	
Bump (Y/N)		No			
Deck Drainage			7	7	
Drains Clogged (Y/N)		No			
Curbs/Median			3	3	Bottom of curb legs have wide cracks/spall, full length of girders (photo).
(Curb Type : Standard)					
Scaling (Percent Area)		0			
Bridge Rail			4	4	Single layer missing 12 splice bolts - photo. Splice between posts. 2 split posts in S rail, w-flexbeam.
(Type : GALVANIZED STEEL W-BEAM)					
Bridge Rail Posts			3	3	5 posts with wide deep vertical checks. Installed short side vertical to curb.
(Type : UNTREATED TIMBER;UNTREATED TIMBER)					
Bridge Rail/Posts Coating			4	4	Starting to rust, W-beam only.
(Type : GALVANIZED)					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now	0	0	0	0	
Girders			4	4	E span 3rd from N transverse & flexural cracks with staining. S3G1, S1G1 & S1G10 - wide longitudinal crack in one leg, full length. S2G1 - med longitudinal crack in one leg, full length. S3G1 spalled within AZ. Pockets on curb units not grouted (photo).
Last Complete Inspection Date		14-Jul-2011			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		5			
Lift or Connector Pocket Grouted (Y/N)		No			
(Number Of Girders : 36)					
Span Alignment Problems					
Vertical (Y/N)		No			Girder numbering do not include curb units.
Horizontal (Y/N)		No			
Superstructure General Rating			4	4	

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
Abutments						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						
(Total Number of Caps/Corbels : 3:3)				(Rot was previously noted in E abut cap. 10Mar2005).		
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				5	5	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 305)						
Backwalls/Breastwalls				6	6	
Greatest Height (m)		1.30				
Wingwalls				6	6	
				1 pile wingwall.		
(Total Number of Bearing Piles : 6:6)				Piles are banded.		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Piles				5	5	
Paint/Coating				X	X	
Abutment Stability				6	6	
Scour/Erosion				7	7	
Piers/Bents						
(Type : PIER-COLUMN)						
40mm plywood shim installed between E pier cap & girder.						
(Total Number of Caps/Corbels : 3:3)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Bearing Seats/Caps/Corbels				5	5	
(Type : TREATED TIMBER)						
(Depth(mm) : 305)						
(Width(mm) : 356)						
(Total Number of Bearing Piles : 7:7)				Piles are banded.		
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now	0	0	0	0		
Pier Shaft/Piles				4	4	
Greatest Height (m)		3.00				
Bracing/Struts/Sheathing				4	6	
Nose Plate				X	X	
Paint/Coating				X	X	
(Colour Description :)						
(Colour Code :)						
Pier Stability				7	7	
				N end E pier pile with wide vert. split, banded. P2p3 & P2p4 with wide vert. split full height, not banded (photo).		

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Scour		8	8	
Debris (Y/N)	No			
Substructure General Rating		4	4	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : N)				
(D/S Direction : S)				
Alignment		6	6	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible. Old piles in streambed under bridge.
Drift (Y/N)	Yes			
Slope Protection		7	7	
(Type :)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(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 #				
REPAIR/REPLACE BRIDGE RAIL	2011	Install missing splice bolts (12). Replace TT posts if curb units not replaced. Upgrade briderail to double layer to meet std. at next major rehab.								
SEAL CURBS	2011	Replace curb unit with ones to accommodate proper steel posts.								
PATCH DECK										
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING	2011									
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS	2011	And piles.								
REPAIR/REPLACE TIMBER CAPS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS										
OTHER ACTION	2011	Remove loose timber shim between girders & failed grout.								
OTHER ACTION	2011	Upgrade guardrail to meet standard (1 post/corner & attach to bridgerail). Turndown NE corner.								
OTHER ACTION	2011	Band split piles P2p3 & P2p4.								
OTHER ACTION	2011	Grout curb lift pockets.								
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	61.1/60.6	Est. Repl. Yr	2015	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	(Monitor caps, E abut 4.3m minor rot. 19Dec01). (Piles & girders still rated as good. Bridge is 24yrs old & 15yrs more life is reasonable with high traffic counts. 19Dec01).		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	Dave Lam	Previous Assistant's Name								
Next Inspection Date	14-Oct-2014	Previous Inspection Date	16-Mar-2005							
Inspection Cycle (Default) (months)	39									

Comment

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Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2011	Install missing splice bolts (12). Replace TT posts if curb units not replaced. Upgrade bridgerail to double layer to meet std. at next major rehab.	Programmed	2012		
SEAL CURBS	2011	Replace curb unit with ones to accommodate proper steel posts.	Defer			
PATCH DECK						
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING	2011					
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS	2011	And piles.	Completed 2012			
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION	2011	Remove loose timber shim between girders & failed grout.	Defer			
OTHER ACTION	2011	Upgrade guardrail to meet standard (1 post/corner & attach to bridgerail). Turndown NE corner.	To operations			
OTHER ACTION	2011	Band split piles P2p3 & P2p4.	Defer			
OTHER ACTION	2011	Grout curb lift pockets.	Programmed	2012		
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	61.1/60.6	Est. Repl. Yr	2015	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	(Monitor caps, E abut 4.3m minor rot. 19Dec01). (Piles & girders still rated as good. Bridge is 24yrs old & 15yrs more life is reasonable with high traffic counts. 19Dec01).		Department Comments	Tentatively programmed to be replaced in 2022. AS - 4 piles rated 4, All other piles rated 5 - Abutment and Pier caps and subcaps programmed to be replaced in 2012. AS		
Maintenance Reviewed By	Andrew Smikles	Date	15-Aug-2012	Estimated Total	0	
Proposed Long-Term Strategy						

On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Dave Lam	Previous Assistant's Name	
Next Inspection Date	14-Oct-2014	Previous Inspection Date	16-Mar-2005
Inspection Cycle (Default) (months)	39		
Comment			