Bridge Inspection

Bridge File Number	02240 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1987/1987	Lot No.	1
		Inspector Name	Wade Nanninga
Bridge or Town Name	GLENDON	Inspector Class	BR CLS A
Located Over	THINLAKE RIVER, 7.12.4, WATERCRS-ST	Assistant Name	
Located On	28:15 C1 35.964	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Apr-2012
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NE SEC 12 TWP 60 RGE 8 W4M	Data Entry Date	24-Apr-2012
Longitude, Latitude	-111:03:47, 54:10:24	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	17-Apr-2012
Contract Main. Area	CMA08	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11.6 /	Dept. Review Date	04-May-2012
AADT/Year	2,390 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	20		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:		MS300					---> 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)	Yes
Remarks	All markers attached to first guardrail posts off bridge. Not to standard height. Not correct position.
Other Sign Types	Thin Lake River.

Utilities (Located at)

Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	South r/w.	Gas	
Power	2 wires South 50m	Municipal	
Others		Problem (Y/N)	No
Remarks	AT&U BM at NE corner #54111-100. Top of new curtain wall.		

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Horizontal curve beyond crest curve to east. 5% grade up to east. No passing EB.
Vertical Alignment		6	7	
Roadway Width (m)	11.200			Full width wide transverse crack in ACP at end of approach slab, typical both ends. East approach settled causing slight dip - photo. Settled @ E end - crack @ approach slab
Approach Bump		5	4	
Guardrail (Y/N)	Yes			99m with radius @ NE to accommodate approach. 99m @ SE. 42m @ NW & SW, not to standard length. Not thrie beam transition.
Guardrail		7	7	
Length (m)	42.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		7	7	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **DBT, 1 Spans, Lengths(m): 36, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%) / 1 (%) / 2 (%) / 3 (%)			
Last				
Now	0.0 / 0.0 / 0.0 / 0.0			
Wearing Surface		5	5	Random transverse cracks at about 4 - 5m on center.
(Material Type : **ACP**)				
(Thickness(mm) : **90**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		8	8	
Deck Joints		N	N	(Fibre board install in joint then paved over to seal gap. 2001/09/22)
Temperature (deg. C)				
(Expansion Type :)				
(Fixed Type :)				
Gap Size (mm) / Gap Location				
Deck Drainage		4	4	Drains to West on wearing surface. Retrofit drain installed @ SW corner, too short, rust staining bottom of girder.
Drains Clogged (Y/N)	No			
Curbs/Median		4	4	Concrete has aggregate in it that is popping. Curbs have flex cracks. Curb spalled under South post 4 - photo.
(Curb Type : **Standard**)				
Scaling (Percent Area)	10			
Bridge Rail		8	8	Post A/B extension / strengthening on 2nd post in each corner only. Grout post cracking 10%
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		7	4	Bottom of post plates rusting.
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		4	4	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count) / 1 (count) / 2 (count) / 3 (count)			G4 delam crack along bottomflange extending from masonary plate - photo
Last	0 / 0 / 0 / 1			
Now	0 / 0 / 0 / 1			
Girders		3	3	Hairline cracks extend into web up to 1.5m past tapered section on 75% of girders. Rust stains in bearing area @ East end on 7 out of 9 girders (old stains). Small chip in G4 bottom flange edge .Construction damage
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : **9**)				Med ck extends from diaphragm into bottom flange @ E. end of G1,G2, &G5 in bearing area.-photo

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **DBT, 1 Spans, Lengths(m): 36, A-Ident Number:**)				
Diaphragms/Cross Frame		5	5	Cast in place concrete diaphragms. 2 cracked @ East end.
Bearings		8	8	
Temperature (deg. C)	5			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		6	4	cracking b/w connector pockets at SE corner with staining
Stains (Percent Area)	2			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**3**	**3**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		8	8	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		8	8	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		8	8	
Scour/Erosion		8	8	
Piers/Bents				
(Type :)				
Bearing Seats/Caps		X	X	
(Type :)				
(Total Number of Bearing Piles :)				
Pier Shaft/Piles		X	X	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		X	X	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **S**)				
(D/S Direction : **N**)				
Alignment		8	8	
Bank Stability		9	9	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		7	7	Class I rock on channel bank only.
(Type : **RIP RAP; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		9	9	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**8**	**8**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2012	Patch curb behind P4 south curb				
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	Seal crack in ACP @ E end				
OTHER ACTION	2012	Reinstall hazard markers to standard height and location.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**61.1/61.1**	**Sufficiency Rating (Last/Now) (%)**	**60.2/60.1**	Est. Repl. Yr	2050	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor cracks and rust stains	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	Shane Hall	Previous Assistant's Name	
Next Inspection Date	10-Jan-2014	Previous Inspection Date	15-Jul-2010
Inspection Cycle (Default) (months)	21		
Comment			