Bridge Inspection

Bridge File Number	01664 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1969/1969	Lot No.	2
		Inspector Name	Brian Pientsch
Bridge or Town Name	HEART RIVER	Inspector Class	BR CLS A
Located Over	SOUTH HEART RIVER, 8.11.80.54, WATERCRS-ST	Assistant Name	Russel Vanderschaaf
		Assistant Class	BR CLS B
Located On	749:04 C1 10.832	Inspection Date	30-Nov-2010
Water Body Cl./Year		Data Entry By	Theresa Lacusta
Navigabil. Cl./Year		Data Entry Date	17-Jan-2011
Legal Land Location	NW SEC 30 TWP 75 RGE 16 W5M	Reviewer Name	Arnold Assenheimer
Longitude, Latitude	-116:29:05, 55:31:47	Review Date	23-Dec-2010
Road Authority	Alberta Transportation (AIT)	Dept. Reviewer Name	David Morrison
Contract Main. Area	CMA06	Dept. Review Date	24-Feb-2011
Clear Roadway/Skew	8.5 /	Follow-Up By	
AADT/Year	880 / 2009 (A)		
Road Classification	RCU-209-110		
Detour Length (km)	65		

Allowable Load (t):	Single	CS1 52 GIRDER	Semi	CS2 62 GIRDER	Train	CS3 76 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	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								

Hazard Marker At Bridge (Y/N)	Yes
Remarks	
Other Sign Types	ICY PATCHES

Utilities (Located at)

Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	Conduit under W curb stringer	Gas	
Power	3 wire o/h East r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Field entrances @ each end.
Vertical Alignment		7	7	
Roadway Width (m)	9.600			
Approach Bump		7	7	
Guardrail (Y/N)	Yes			Guardrail not connected to bridgerail insufficient posts and length.
Guardrail		7	7	
Length (m)	11.400			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		4	4	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FC, 3 Spans, Lengths(m): 25.9-25.9-25.9, A-Ident Number:**)				
Special Features				
Special Feature		7	7	
(Type : **UNDERSLUNG DIAPHR**)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%) / 1 (%) / 2 (%) / 3 (%)			Partially snow covered.
Last	0 / 0 / 0 / 0			
Now	50.0 / 0.0 / 0.0 / 0.0			
Wearing Surface		5	5	
(Material Type : **CONCRETE**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		8	8	
Deck Joints		3	N	NW curb cover plate sticking up 50mm,missing 1 bolt (26-Aug-2007) Curb cover plates @ A1W & P1W protruding 15mm from curb.-26-Aug-2007 Snow covered.
Temperature (deg. C)	-3			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
Gap Size (mm)	Gap Location			
90	N abut			
78	N pier			
76	S pier			
80	S abut.			
Deck Drainage		7	7	
Drains Clogged (Y/N)	No			
Curbs/Median		3	N	SE transition curb has rebar showing - 1.5m long (photo).-26-Aug-2007 Snow covered.
(Curb Type : **Standard**)				
Scaling (Percent Area)	0			
Bridge Rail		7	7	Deteriorated grout pads @ NW.-26-Aug-2007 Snow covered.
(Type : **GALVANIZED STEEL VERTICAL BAR**)				
Bridge Rail Posts		4	N	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		7	7	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count) / 1 (count) / 2 (count) / 3 (count)			
Last	0 / 0 / 0 / 0			
Now				
Girders		4	4	Cracking at champher line going into deck typical.Spall S3G6 W leg over pier 2 (150 x 100) at shoe plate. N pier NW corner outside leg cracked @ bearing.-S3G1 S2G1 rust spot at centre, S3G6 rust and crack at abut 2 and pier 2.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : **18**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FC, 3 Spans, Lengths(m): 25.9-25.9-25.9, A-Ident Number:**)				
Diaphragms/Cross Frame		4	4	Cracking at end diaphragms & spalling.
Bearings		4	4	S abut. 2nd girder SW corner pad out of place 47mm. Most of the bearings distorted up to 30mm.(photo) Shim rusting. Shoe plates on girders scaling rust
Temperature (deg. C)	-3			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		6	6	
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				Horizontal delamination cracks along top of piers. Staining on both pier caps.(NEW DECK JOINTS PREVENTING FURTHER STAINING OR DETERIORATION) Wide crack NW corner pier 2
Bearing Seats/Caps		4	4	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **5:5**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		4	4	Pitting & rusting lower 600.
(Colour Description : **BLUE**)				
(Colour Code : **502-105**)				
Pier Stability		7	7	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Scour		7	7	
Debris (Y/N)	No			
Substructure General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				
(D/S Direction : **E**)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Curb)	2.0			(HWM 2.0m below girder.(1995.02.22)
Drift (Y/N)	Yes			
Slope Protection		6	4	South headslope concrete protection heaving.
(Type : **CONCRETE; CONCRETE**)				
Guidebank/Spurs		7	7	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**4**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
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	2011	Repair NW cover plate.-carried over 26-Aug-2007				
OTHER ACTION	2011	Patch curbs,grout pads,drain,and diaphram.-carried over 26-Aug-2007				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**54.2/51.3**	Est. Repl. Yr	2034	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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	28-Feb-2014	Previous Inspection Date	26-Aug-2007		
Inspection Cycle (Default) (months)	39				
Comment					