Bridge Inspection

Bridge File Number	76223 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1966/1966	Lot No.	2
		Inspector Name	Eric Carcoux
Bridge or Town Name	WHITECOURT	Inspector Class	BR CLS A
Located Over	SAKWATAMAU RIVER, 8.11.108, WATERCRS-ST	Assistant Name	
		Assistant Class	
Located On	32:12 C1 1.699	Inspection Date	14-Oct-2012
Water Body Cl./Year		Data Entry By	Theresa Lacusta
Navigabil. Cl./Year		Data Entry Date	19-Dec-2012
Legal Land Location	SE SEC 19 TWP 60 RGE 12 W5M	Reviewer Name	Stew Hagan
Longitude, Latitude	-115:46:45, 54:12:05	Review Date	12-Dec-2012
Road Authority	Alberta Transportation (AIT)	Dept. Reviewer Name	Brent Herrick
Contract Main. Area	CMA12	Dept. Review Date	21-Dec-2012
Clear Roadway/Skew	9.1 /	Follow-Up By	
AADT/Year	2,050 / 2011 (A)		
Road Classification	RAU-209-110		
Detour Length (km)	20		

Allowable Load (t):	Single	CS1 39 GIRDER	Semi	CS2 49	Train	CS3 61 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Load Posting (t)			Single		Semi		Truck Train	62
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	Not required.
Other Sign Types	"Sakwatamau River" at SE & NW corners.

Utilities (Located at)

Utility Attachments			
Telephone	West r/w.	Gas	
Power		Municipal	
Others	WSC shack NE.	Problem (Y/N)	Yes
Remarks	Telephone cable strung along West curb.		

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Long sag curve, approach to SE. Limited sight distance to South.
Vertical Alignment		6	6	
Roadway Width (m)	9.200			Wide transverse crack in ACP at ends of approach slabs.
Approach Bump		6	6	
Guardrail (Y/N)	Yes			Not standard post spacing at NW & SE corners, not thrie beam.
Guardrail		7	7	
Length (m)	26.200			
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 : **FC, 3 Spans, Lengths(m): 12.2-25.9-12.2, A-Ident Number:**)			
Special Features			
Special Feature	8	8	Underslung beams. Bolts hang down approx 175 mm.
(Type : **EXT LATER POST TENS**)			
Special Feature		X	
(Type :)			
Wearing Surface/Deck Top Detail Ratings			
Wearing Surface	4	4	1mx2m section peeled off at N end of bridge.
(Material Type : **CONCRETE - CONVENTIONAL CHIP SEAL COAT**)			
(Thickness(mm) : **50**)			
Lateral Connection Problem (Y/N) : No			
Deck Top	N	N	
Deck Rideability	7	7	
Deck Joints	N	3	Evidence bladder has failed @ both piers & at A2 due to corroded bearing & girder shoe plates @ G5 & G2, staining of piers & A1 - photos Joints may have been replaced. Too much snow to confirm.
Temperature (deg. C) : 5			
(Expansion Type :)			
(Fixed Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)			
Deck Drainage	N	3	Leaking on AZ
Drains Clogged (Y/N) :			
Curbs/Median	N	4	Delam curb/grout pad leaving void @ NW post.
(Curb Type : **Standard**)			
Scaling (Percent Area) : 5			
Bridge Rail	4	4	Double layer. Incorrectly lapped. Missing 4 splice bolts at each connection - photo.
(Type : **GALVANIZED STEEL FLEX BEAM**)			
Bridge Rail Posts	7	7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating	7	7	
(Type : **GALVANIZED**)			
Sidewalk	X	X	
Girder Detail Ratings			
Girders	4	4	Typical crack along chamfer. Typical cracks at girder shoe plate, starting to corrode/spall, worst @ S1G5 & G2 due to leaking joint - photo.
Cracking (Y/N) : Yes			
Spalling (Percent Area) : 1			
(Number Of Girders : **18**)			

Deck Joints – Gap Size (mm)	Gap Location
65	South abutment
58	South pier
57	North pier
62	North abutment

Wearing Surface/Deck Top Detail Ratings	N (%)	1 (%)	2 (%)	3 (%)
Last	5	0	0	0
Now				

Girder Detail Ratings	N (count)	1 (count)	2 (count)	3 (count)
Last				
Now				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FC, 3 Spans, Lengths(m): 12.2-25.9-12.2, A-Ident Number:**)				
Diaphragms/Cross Frame		5	5	End diaphragms to show efflorescence & corrosion cracking - photo.
Bearings		4	4	Bearings corroding where joint is leaking. Worst SP1G1, 5 & 6 Abutments are fixed.
Temperature (deg. C)	5			
(Expansion Type : **SLIDING PLATE**)				
(Fixed Type : **PINNED 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		4	4	A2 horizontal crack under G1/G2.
(Type : **CONCRETE**)				
Backwalls/Breastwalls		5	5	
Wingwalls		5	5	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		5	5	
Scour/Erosion		7	3	Scour on S headslope and protection failed.-photo
Piers/Bents				
(Type : **PIER-SOLID**)				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0:0**)				2 wide vertical cracks/pier. Couple spalls at bottom of P2 stream side from lack of cover, with exposed rebar.
Pier Shaft/Piles		4	4	
Bracing/Struts/Sheathing		X	X	
Nose Plate		6	6	
Paint/Coating		4	4	Nose plate rusting.
(Colour Description :)				
(Colour Code :)				
Pier Stability		5	5	
Scour		6	6	
Debris (Y/N)	Yes			900mm dia tree under SP1.-photo
Substructure General Rating		**4**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **W**)				Impinging on A1, failing slope protection.
(D/S Direction : **E**)				
Alignment		7	3	
Bank Stability		5	5	
HWM (m below Top of Curb)				HWM not visible. 900 dia tree S headslope.
Drift (Y/N)	Yes			
Slope Protection		4	3	Protection failed and falling away @ A1.
(Type : **CONCRETE; CONCRETE**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**4**	**3**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2013	Install 196 splice bolts along flexbeam bridgerail. Correct lap.				
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS	2013	Patch spalled curb under post.				
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2012	Replace/repair failed joints, if not done already.				
RESET/ PAINT BEARINGS	2013					
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Repair S. concrete slope protection.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**44.4/44.4**	**Sufficiency Rating (Last/Now) (%)**	**49.7/48.0**	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	Kris Bosters	Previous Assistant's Name			
Next Inspection Date	14-Jul-2014	Previous Inspection Date	15-Dec-2010		
Inspection Cycle (Default) (months)	21				

Comment	