

Bridge Inspection										
Bridge File Number	73949 -1 Bridge				Form Type	SS SG				
Year Built/Year Supstr	1960/1960				Lot No.	1				
Bridge or Town Name	DUNVEGAN BRD				Inspector Name	Brian Pientsch				
Located Over	MUNICIPAL ROAD UNDER NORTH END OF DUNVEGAN BRIDGE;PEACE RIVER, 8.10, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	2:68 C1 13.915				Assistant Name	Russel Vanderschaaf				
Water Body Cl./Year					Assistant Class	BR CLS B				
Navigabil. Cl./Year					Inspection Date	24-Jan-2012				
Legal Land Location	NE SEC 7 TWP 80 RGE 4 W6M				Data Entry By	Theresa Lacusta				
Longitude, Latitude	-118:36:17, 55:55:16				Data Entry Date	27-Mar-2012				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Eric Carcoux				
Contract Main. Area	CMA05				Review Date	22-Mar-2012				
Clear Roadway/Skew	8.6 /				Dept. Reviewer Name	David Morrison				
AADT/Year	2,710 / 2011 (A)				Dept. Review Date	07-Aug-2012				
Road Classification	RAU-211.8-110				Follow-Up By					
Detour Length (km)	276									
Allowable Load (t):	Single		Semi		Train		---> On Critical Spans --->Critical Member			
Design Loading:	HS20				---> Primary Span					

Posting Information											
Required Vert. Clearance Posting (m)	ON: 10.2m										
Posted Vertical Clearance (Y/N)	No										
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)	In Advance (Y/N)	No
Remarks											
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 required.										

Hazard Marker At Bridge (Y/N)	No										
Remarks											
Other Sign Types	Numerous signs on each approach hill, 75km/hr advisory.										

Utilities (Located at)											
Utility Attachments											
Telephone	2 utility conduits under bridge.				Gas						
Power					Municipal						
Others	Light standards on both approaches & bridge.				Problem (Y/N)	No					
Remarks											

Approach Road					
		Last	Now	Explanation of Condition	
Horizontal Alignment		4	4	Curves and hills below standard.	
Vertical Alignment		4	4		
Roadway Width (m)	8.000			Between flexbeam at South approach.	
Approach Bump		7	7		
Guardrail (Y/N)	Yes			Tear from snow plow at NE corner, North approach.	
Guardrail		9	4		
Length (m)	99.000				
Current Standard (Y/N)	Yes				
Termination Type	Turn Down				
Drainage		7	7		
Approach Road General Rating		4	4		

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : SSS, 11 Spans, Lengths(m): 137.2-274.3-137.2-20.9-22.9-22.9-22.9-22.9-22.9-17.2, A-Ident Number: A0285-01;A0285-02)						
Special Features						
Special Feature			X	Suspension Hangers & Cables.		
(Type :)				1 broken, 3 nicked strands 4th hanger South of north tower on west side - photo. Pitting & flaking rust on cable anchors @ anchor blocks.		
Hinge		4	4	Bolt sheared off SW hanger near pier 8.-photo		
(Hinge Type : PIN HANGER)				Wide load damage to hanger connector SE corner neat pier 8.-photo		
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)	Partly sand/gravel covered.	
Last						
Now	10.0					
Wearing Surface			7	7	Line painting not centered on deck, appears to be painted 150mm East of actual centerline. Lateral cracks noted on suspension approach spans. Segregation areas sealed with oil.	
(Material Type : MIX TYPE 2 ACP)						
(Thickness(mm) : 90)						
Deck Top			N	N		
Deck Rideability			7	7	Minor bump @ North pier, Northbound lane.	
Deck Joints			8	8	South pier both cover plate keeper bolts have no nuts.	
Temperature (deg. C)		-10				
(Expansion Type : FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC))						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
165		S. pier				
220		S. tower				
252		N. tower				
88		N. abut				
Deck Drainage			4	4	Total of 3 drains plugged with debris.	
Drains Clogged (Y/N)		Yes				
Curbs/Median			9	N	Snow and gravel covered.	
(Curb Type : Standard)						
Scaling (Percent Area)		0				
Bridge Rail			8	3	Accident damage scrape center North span West rail. Rail splice out of vertical alignment East rail @ North pier. Tower causing connector sleeves to bind/popout of placement.-photo White coating rust noted on rails throughout.	
(Type : GALVANIZED STEEL BRIDGE TUBE)						
Bridge Rail Posts			9	9		
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)						
Bridge Rail/Posts Coating			7	7		
(Type : GALVANIZED)						
Sidewalk			X	X		
Top Chord			7	7	View underside with binoculars from shores. Carts wouldn't start due to cold weather. Open bolt holes in vertical & diagonals from previous rail connection.	
Diagonals			4	4		
Verticals			4	4	(The 5th vertical North span east side is bent 40mm. Missing structural bolt East stiffening truss connection North of second hanger from North pier. -10-Jun-2010)	
Connections			4	3		
Floor Beams			7	7	Gusset plate caulking cracked.-photo	
Bottom Chord			7	7	Pack rust between connections causing gusset plates to bulge up to 15mm.-photo	
Stringers			7	7	All members covered in sand and gravel.-photo	
Girders			7	7		

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : SSS, 11 Spans, Lengths(m): 137.2-274.3-137.2-20.9-22.9-22.9-22.9-22.9-22.9-17.2, A-Ident Number: A0285-01;A0285-02)					
Diaphragms/Cross Frame		7	7		
Paint Condition		5	4		
(Colour Description : YELLOW)					
(Colour Code : 505-101)					
Touchup Required (Y/N)	Yes				
Bearings		8	N	Couldn't see.	
Temperature (deg. C)	-10				
(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		9	9		
Stains (Percent Area)	0				
(Snow Slots Filled : N)					
Span Alignment Problems					
Vertical (Y/N)	No			(Main span truss contacted tower, south truss West side, below deck - photo. 13/June/2006) Lane painting not centered on deck.	
Horizontal (Y/N)	Yes				
Superstructure General Rating		4	3		

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Secondary Span : RB)					
Special Features					
Special Feature			7	Pin & hangers in girders made continuous using splice plates on bottom flange and saddle hanger. Open holes in bottom flanges and splice plates on girders 1, 2 & 3 - typical.	
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Partly gravel covered.
Last					
Now	5.0				
Wearing Surface		7	7		
(Material Type : MIX TYPE 2 ACP)					
(Thickness(mm) : 90)					
Deck Top		N	N		
Deck Rideability		9	9		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Secondary Span : RB)				
Deck Joints		9	9	
Temperature (deg. C)	-10			
(Expansion Type : FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC))				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
100	South abutment - A1			
Deck Drainage		9	9	
Drains Clogged (Y/N)	No			
Curbs/Median		9	9	
(Curb Type : Standard)				
Scaling (Percent Area)	0			
Bridge Rail		9	9	Insufficient threads at several post anchorages East curb. Grout pads extend onto edge of base plates and poorly grouted pads noted, all on East curb. White galvanized coating rust noted on rails throughout. SW parapet at abut 2 spaced 1.5x0.15x0.15.
(Type : GALVANIZED STEEL BRIDGE TUBE)				
Bridge Rail Posts		5	4	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)				
Bridge Rail/Posts Coating		7	7	
(Type : GALVANIZED)				
Sidewalk		X	X	
Girder/Beam				
Cover Plate		X	X	Open holes in bottom flange of G1, G2 & G3 at pin & hanger splice locations.
Flange		5	5	
Web		7	7	
Stiffeners		X	X	
Splice		5	5	
Weld		X	X	
Diaphragms/Cross Frame		7	7	
Paint Condition		6	6	yellow
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		8	N	Anchor bolts on West side of abutment 1 not double nutted due to inadequate thread protrusion. slotted pinned
Temperature (deg. C)	-10			
(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		9	9	
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Secondary Span : RB)				
Superstructure General Rating		5	5	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps/Corbels		7	7	
(Type : CONCRETE)				
(Depth(mm) :)				
(Width(mm) : 711)				
Backwalls/Breastwalls		6	6	
Wingwalls		5	5	
Piles		N	N	
Paint/Coating		5	5	
Abutment Stability		7	7	
Scour/Erosion		5	5	
Piers/Bents				
(Type : PIER-SOLID)				
Bearing Seats/Caps/Corbels		5	5	Cracks, spalls and concrete delaminations in all approach span piers.-photo
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0:0:0:0:0:0:0)				
Pier Shaft/Piles		4	3	
Greatest Height (m)	30.00			
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	No			
Substructure General Rating		4	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				
(D/S Direction : E)				
Alignment		7	7	
Bank Stability		5	5	
HWM (m below Top of Curb)				No HWM visible.
Drift (Y/N)	Yes			
Slope Protection		5	5	
(Type : NATURAL; NATURAL)				

Structure Usage				
		Last	Now	Explanation of Condition
Guidebank/Spurs		X	X	
Adequacy of Opening		9	9	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	
Grade Separation				
Road Alignment		7	7	
Traffic Safety Features		X	X	
Type	None			
Slope Protection		X	X	
(Type : NATURAL; NATURAL)				
Bank Stability		5	5	
Drainage		7	7	
Grade Separation General Rating		5	5	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL	2012	At North tower East rail.								
GALVANIZE/PAINT BRIDGE RAIL										
RETROFIT BRIDGE RAIL										
SEAL CURBS										
PATCH DECK										
SEAL DECK										
OVERLAY DECK										
REPAIR/REPLACE DECK JOINTS										
RESET/ PAINT BEARINGS										
REPAINT SUPERSTRUCTURE										
STRAIGHTEN/REPLACE MEMBERS										
WASHING	2012	Wash bridge.								
SHOTCRETE REPAIRS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
OTHER ACTION	2012	Consider filling open holes in verticals & diagonals in stiffening truss with structural bolts.								
OTHER ACTION	2012	Recaulk stiffening truss gusset plate connections.								
OTHER ACTION	2012	Repair cracks/spalls/delams in approach span piers.								
OTHER ACTION										
OTHER ACTION										
Structural Condition Rating (Last/Now) (%)	44.4/33.3	Sufficiency Rating (Last/Now) (%)	31.9/27.5	Est. Repl. Yr	2060	Maint. Req. (Y/N)	Yes			
Special Comments for Next Inspection	Monitor cracks and delams in Both approach span piers. Monitor hanger cable with broken & nicked strands. Monitor paint condition, pack rust in gusset plates and cable anchors.		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	Brian Pientsch		Previous Assistant's Name							
Next Inspection Date	24-Oct-2013		Previous Inspection Date	10-Jun-2010						
Inspection Cycle (Default) (months)	21									

Comment	
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Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2012	At North tower East rail.				
GALVANIZE/PAINT BRIDGE RAIL						
RETROFIT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
REPAINT SUPERSTRUCTURE						
STRAIGHTEN/REPLACE MEMBERS						
WASHING	2012	Wash bridge.				
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2012	Consider filling open holes in verticals & diagonals in stiffening truss with structural bolts.				
OTHER ACTION	2012	Recaulk stiffening truss gusset plate connections.				
OTHER ACTION	2012	Repair cracks/spalls/delams in approach span piers.				
OTHER ACTION						
OTHER ACTION						
Structural Condition Rating (Last/Now) (%)	44.4/33.3	Sufficiency Rating (Last/Now) (%)	31.9/27.5	Est. Repl. Yr	2060	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Monitor cracks and delams in Soth approach span piers. Monitor hanger cable with broken & nicked strands. Monitor paint condition, pack rust in gusset plates and cable anchors.		Department Comments	Check for gaps behind (upslope side)or material pushing in front of (river side), either concrete anchorage.		
Maintenance Reviewed By		Date		Estimated Total	0	
Proposed Long-Term Strategy						

On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Brian Pientsch	Previous Assistant's Name	
Next Inspection Date	24-Oct-2013	Previous Inspection Date	10-Jun-2010
Inspection Cycle (Default) (months)	21		
Comment			