

Bridge Inspection											
Bridge File Number	78031 -1 Bridge				Form Type	SG					
Year Built/Year Supstr	1979/1979				Lot No.	2					
Bridge or Town Name	PETER LOUGHEED BRIDGE (FORT MACKAY)				Inspector Name	Wade Nanninga					
					Inspector Class	BR CLS A					
Located Over	ATHABASCA RIVER, 8.11, WATERCRS-ST				Assistant Name						
Located On	63:14 C1 0.071				Assistant Class						
Water Body Cl./Year					Inspection Date	15-Nov-2011					
Navigabil. Cl./Year					Data Entry By	Theresa Lacusta					
Legal Land Location	SW SEC 7 TWP 94 RGE 10 W4M				Data Entry Date	12-Dec-2011					
Longitude, Latitude	-111:36:43, 57:08:03				Reviewer Name	Eric Carcoux					
Road Authority	Alberta Transportation (AIT)				Review Date	23-Nov-2011					
Contract Main. Area	CMA07				Dept. Reviewer Name	Brent Herrick					
Clear Roadway/Skew	10 /				Dept. Review Date	15-Dec-2011					
AADT/Year					Follow-Up By						
Road Classification	RAU-213.4-120										
Detour Length (km)	999										
Allowable Load (t):	Single	CS1 28			Semi	CS2 49			Train	CS3 62	----> On Critical Spans ---->Critical Member
Design Loading:	MS23									----> 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									
Other Sign Types	Information, Athabasca River, Bridge Deck Icy, No Passing								

Utilities (Located at)										
Utility Attachments										
Telephone	S row				Gas					
Power	4 wires @ SE/SW corner				Municipal					
Others					Problem (Y/N)	No				
Remarks										

Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			6	6	Contact SYNCRUDE SECURITY for access to catwalk where required. Long gradual curves in both directions. Bridge on grade.				
Vertical Alignment			7	7					
Roadway Width (m)	11.200				W. approach has wide crack at approach slab with pot holes. Filled with cold mix.				
Approach Bump			3	5					
Guardrail (Y/N)	Yes				3 rail sections at NE-accident damage.-photo 2 broken posts. Insufficient posts - tie-ins strengthened with steel bars.				
Guardrail			3	3					
Length (m)	99.000								
Current Standard (Y/N)	No								
Termination Type	Turned Down								
Drainage			4	N	Embankment drainage eroding holes in front of East abutment.-08-Mar-2010 Snow covered.				
Approach Road General Rating			6	6					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : WG, 5 Spans, Lengths(m): 78-98-98-98-78, A-Ident Number: A0827-01)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Viewed from slow moving vehicle
Last					
Now	15.0	0.0	0.0	0.0	
Wearing Surface			6	5	FRSF overlay. Narrow transverse cracks @ 1.0 spacing full width. Wide transverse cracks near midspan. (Light scaling along gutter mainly @ East abutment 40m. West 1/4 L WB has rust, inhibitor concrete installed (test strip), no defects noted.-08-Mar-2010)
(Material Type : CONCRETE)					
(Thickness(mm) : 50)					
Deck Top			N	N	
Deck Rideability			8	7	
Deck Joints			3	3	West joint fingers not bearing fully & rattling under traffic EB. 2 broken and missing steel finger at West abut.-photo
Temperature (deg. C)		-10			
(Expansion Type : FINGER PLATES)					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
220		East abut			
280		West abutment			
Deck Drainage			3	3	Drain troughs don't extend low enough. Water staining on bottom flange.-photo
Drains Clogged (Y/N)		Yes			
Curbs/Median			5	N	(Minor scrapes by plow. 2 West cover plates. Plow scrapes along curb. Missing bolts. Moderate scaling on top of curb in some sections.-08-Mar-2010)
(Curb Type : Standard)					
Scaling (Percent Area)		1			
Bridge Rail			6	6	(5% of post A/B's with insufficient thread, a couple post grout pad delam. -17-July-08) Gravel/mud covering posts/AB Corrosion at some post base plates. Dirty.
(Type : GALVANIZED STEEL BRIDGE TUBE)					
Bridge Rail Posts			N	N	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating			4	N	
(Type : GALVANIZED)					
Sidewalk			X	X	
Girder/Beam					
Cover Plate			8	8	Catwalk under bridge is inaccessible, viewed with binoculars from banks.
Flange			7	7	
Web			8	8	
Stiffeners			8	8	
Splice			8	8	
Weld			8	8	
Diaphragms/Cross Frame			8	8	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : WG, 5 Spans, Lengths(m): 78-98-98-98-78, A-Ident Number: A0827-01)				
Paint Condition		6	6	Weathering steel.
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		5	5	Rockers fully expanded at both abutments @ 18 degree C.-17-July-08 70% expanded at -10 degree C.-East abut.
Temperature (deg. C)	-10			
(Expansion Type : ROCKER BEARING)				
(Fixed Type :)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	Random rust spots showing through deck (old stains).
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		5	5	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
Backwalls/Breastwalls		7	7	
Wingwalls		6	5	Cracking/scaling at SW corner - 0.5m2
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		6	6	
Scour/Erosion		4	4	300mm void at toe of E abut. seat.
Piers/Bents				
(Type : PIER-SOLID)				Viewed from banks.
Bearing Seats/Caps		8	8	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0:0)				Wide crack at P3 extending from SB up 6m. Med map cracking at P2 with staining-extending 80% of pier.
Pier Shaft/Piles		5	5	
Bracing/Struts/Sheathing		X	X	
Nose Plate		8	8	
Paint/Coating		6	6	Minor staining at waterline.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		7	7	
Debris (Y/N)	Yes			Caught on P2

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				
(D/S Direction : N)				
Alignment		9	9	
Bank Stability		8	8	
HWM (m below Top of Curb)				HWM not visible. Caught on P2
Drift (Y/N)	Yes			
Slope Protection		7	4	Void at toe at E abut.
(Type : NONE; NONE)				
Guidebank/Spurs		X	X	
Adequacy of Opening		9	9	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		7	7	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2012	Shim all fingers to stop slapping. 2 missing fingers at W.					
RESET/ PAINT BEARINGS	2015	Reset rockers. Next major rehab.					
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING	2012	Unclog deck drains.					
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Replace broken guardrail posts (3) and (3) damaged flexbeam NE.					
OTHER ACTION	2015	Lower drain tubes.					
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	48.5/51.2	Est. Repl. Yr	2062	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Obtain access to catwalk at Syncrude office if required. Will also require a standby person according to signs on the gate. Monitor cracking at piers.		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	Arnold Assenheimer		Previous Assistant's Name	Wade Nanninga			
Next Inspection Date	15-Aug-2013		Previous Inspection Date	08-Mar-2010			
Inspection Cycle (Default) (months)	21						
Comment							