

Bridge Inspection									
Bridge File Number	74969 -1 Bridge				Form Type	PSR			
Year Built/Year Supstr	1960/1960				Lot No.	1			
Bridge or Town Name	DRAYTON VALL				Inspector Name	Wade Nanninga			
Located Over	PEMBINA RIVER, 8.11.84, WATERCRS-ST				Inspector Class	BR CLS A			
Located On	621:02 C1 16.358				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	14-Nov-2012			
Legal Land Location	SE SEC 1 TWP 50 RGE 9 W5M				Data Entry By	Theresa Lacusta			
Longitude, Latitude	-115:10:29, 53:16:50				Data Entry Date	16-Jan-2013			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Eric Carcoux			
Contract Main. Area	CMA11				Review Date	15-Jan-2013			
Clear Roadway/Skew	7.9 /				Dept. Reviewer Name	Brent Herrick			
AADT/Year	1,230 / 2011 (A)				Dept. Review Date	18-Jan-2013			
Road Classification	RCU-209-110				Follow-Up By				
Detour Length (km)	40								
Allowable Load (t):	Single	CS1 46 GIRDER	Semi	CS2 59 GIRDER	Train	CS3 70 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	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)	No								
Remarks	Required.								
Other Sign Types	Information, Curve Ahead.								
Utilities (Located at)									
Utility Attachments									
Telephone	South r/w.				Gas				
Power	3 wires North r/w, 2 wire South.				Municipal				
Others	Oil pipeline West 200m.				Problem (Y/N)	No			
Remarks	Old conduit brackets on bridge posts.								
Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			6	6	Curve to East. In bottom of sag curve, limited sight distance both directions. No passing both directions.				
Vertical Alignment			6	6	Not attached to bridge and post spacing incorrect in first section - photo. Guardrail set only 300mm above ACP. Rail/post bolt pulled through rail @ NW - photo. 57m @ NE; 26.6m @ SE; 49.4m @ SW; 45.6m @ NW.-16-Dec-2007				
Roadway Width (m)	9.200				Both approach slabs settling, SE corner is the worst, settled 280 mm - patches.				
Approach Bump			5	5					
Guardrail (Y/N)	Yes				Snow windrow along rail.				
Guardrail			N	4	Not attached to bridge and post spacing incorrect in first section - photo. Guardrail set only 300mm above ACP. Rail/post bolt pulled through rail @ NW - photo. 57m @ NE; 26.6m @ SE; 49.4m @ SW; 45.6m @ NW.				
Length (m)	26.600								
Current Standard (Y/N)	No								
Termination Type	Turned Down								
Drainage			6	6					
Approach Road General Rating			6	6					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : PO, 3 Spans, Lengths(m): 24.1-29.9-24.1, A-Ident Number:)					
Special Features					
Special Feature		7	7		
(SType : EXT SHEAR STIRRUP)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
Last	10	0	0	0	
Now	10.0	0.0	0.0	0.0	
Wearing Surface		4	4	Fibre Reinforced Silica Fume. Two shallow potholes 75 & 75mm near East end of bridge - photo. Random transverse cracks. No centerline paint marking full length of deck.	
(Material Type : CONCRETE)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)		No			
Deck Top		N	N		
Deck Rideability		7	7		
Deck Joints		3	3	Extrusion broken at P2 - photo. Slight 20mm misalignment at P1. Seals at P1, P2 broken allowing water to run onto pier cap. Slight bump over all joints. East abutment joint failed, daylight through gap - photo.	
Temperature (deg. C)		0			
(Expansion Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type : BUFFER ANGLES)					
Gap Size (mm)		Gap Location			
20		West abutment - A1			
70		West pier - P1			
85		East pier - P2			
25		East abutment - A2			
Deck Drainage		7	3	Water stains at underside curb concrete. Drains short but no problem. Water running on E abutment and pier.	
Drains Clogged (Y/N)		No			
Curbs/Median		N	3	Snow covered. Settlement of approach curb could reduce curb effectiveness. Curb spall in South side S3 under post compromise post anchorage - photo. Another spall in S1, South curb - photo.	
(Curb Type : Standard)					
Scaling (Percent Area)		25			
Bridge Rail		6	6	Rail at approach slabs, slopes down due to settlement.-rail settled over West pier.	
(Type : GALVANIZED STEEL NON-STANDARD RAIL)					
Bridge Rail Posts		3	3	Anchor exposed at end post SE corner - photo. Spalling curb compromising anchorage of post neat pier 1.(South)	
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating		7	7	Dirty.	
(Type : GALVANIZED)					
Sidewalk		X	X		
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last					
Now					
Girders		7	7	4 girders in end spans. 5 girders in middle span.	
Cracking (Y/N)		No			
Spalling (Percent Area)		1			
(Number Of Girders : 13)					

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : PO, 3 Spans, Lengths(m): 24.1-29.9-24.1, A-Ident Number:)				
Diaphragms/Cross Frame		6	6	Corroding @ abutments.
Bearings		3	3	Bridge is jammed at East abutment causing spalls. Bearings are overexpanded resulting in leaning masonry plates, bent or missing anchor bolts & lack of gap for expansion - photo. Pier bearings not accessible. Heavy corrosion at abutments.
Temperature (deg. C)	0			
(Expansion Type : SLIDING PLATE)				
(Fixed Type : PINNED BEARING)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	No			
Deck Underside		5	4	Spalls at East abutment due to rotation. Patches around P1.
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	Yes			West pier extrusion misalignment near North curb (P1). East abutment rotated approach paved to cover over elevation difference.
Horizontal (Y/N)	No			
Superstructure General Rating		3	3	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
Abutments				
Bearing Seats/Caps		4	4	Wide vertical cracks in both abut. seats. East abut rotating.-15 degrees.
(Type : CONCRETE)				
Backwalls/Breastwalls		4	4	Wide cracking -E backwall spalling from girders.
Wingwalls		4	4	Scaling, SE rotated.
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		4	4	Rotating E abut.
Scour/Erosion		6	4	Toe of East headslope sloughing.
Piers/Bents				
(Type : PIER-SOLID)				Viewed with binoculars.
Bearing Seats/Caps		6	6	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 1:0)				Spalling P2 exposing corroded rebar, both sides. Water running along face.
Pier Shaft/Piles		4	4	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		4	4	Most paint gone from nose plates, some superficial rust.
(Colour Description :)				
(Colour Code :)				
Pier Stability		4	4	Both piers leaning, East pier is the worst.
Scour		N	N	
Debris (Y/N)	Yes			Drift piles against east pier - photo.
Substructure General Rating		4	4	

Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				
(D/S Direction : N)				
Alignment		7	7	
Bank Stability		4	4	Movement of East abutment indicate unstable banks.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	Yes			
Slope Protection		5	4	SW bank, vertical cut. Sloughing at headslope toe.
(Type : CONCRETE)				Natural on west headslope. Concrete bags East abut.
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		4	4	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Restore anchor, tighten nuts, if not done. Recondition/reset rails to smooth line.-Attach GR					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2013	Patch spalls & seal, patch delam curb underside.					
PATCH DECK							
SEAL DECK							
OVERLAY DECK	2013	Chipseal.					
REPAIR/REPLACE DECK JOINTS	2013	Replace all joints.					
RESET/ PAINT BEARINGS	2013	Reset and paint.					
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Upgrade guardrail to meet standard.					
OTHER ACTION	2013	Patch pier 2 spall					
OTHER ACTION	2013	Install hazard markers all corners.					
OTHER ACTION	2013	Rehab abutments & stabilize abutment fills.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	38.9/38.9	Sufficiency Rating (Last/Now) (%)	43.5/43.4	Est. Repl. Yr	2026	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection	Geotechnical assessments req'd for uneven settlement and rotation. Bridge assessment underway.25-Jan-2007 Monitor crack in East abut, rotation of SE wingwall and backwalls. Determine why rail/curb sagged @ P1. All above recommended action to be considered in rehab tender. Inspect @ 18 months. Monitor abut. brigs and girder ends for damage until rehabed.		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	14-Jan-2014	Previous Inspection Date	24-Jan-2011
Inspection Cycle (Modified) (months)	14		
Comment			