

Bridge Inspection							
Bridge File Number	74236 -1 Bridge			Form Type	SG		
Year Built/Year Supstr	1970/1970			Lot No.			
Bridge or Town Name	MYRNAM			Inspector Name	Ed Kowal		
Located Over	NORTH SASKATCHEWAN RIVER, 6, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	881:12 C1 0.136			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	27-Jun-2012		
Legal Land Location	NE SEC 14 TWP 55 RGE 9 W4M			Data Entry By	Wayne Cappellani		
Longitude, Latitude	-111:13:11, 53:45:15			Data Entry Date	08-Nov-2012		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	Wayne Cappellani		
Contract Main. Area	CMA08			Review Date	08-Nov-2012		
Clear Roadway/Skew	7.9 /			Dept. Reviewer Name	Brent Herrick		
AADT/Year	780 / 2011 (A)			Dept. Review Date	13-Nov-2012		
Road Classification	RCU-209-110			Follow-Up By			
Detour Length (km)	50						
Allowable Load (t):	Single	H 45 GIRDER	Semi	HS 71 GIRDER	Train	CS3 72	----> 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	Not required.						
Hazard Marker At Bridge (Y/N)	Yes						
Remarks							
Other Sign Types	North Saskatchewan River, steep hill.						

Utilities (Located at)			
Utility Attachments			
Telephone			Gas
Power			Municipal
Others			Problem (Y/N) No
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Long curves in both directions. Steep grades in both directions at 5% in sag curve. No passing both directions.
Vertical Alignment		5	5	
Roadway Width (m)	8.000			Posts broken @ NE corner. North approach guardrails too low (average 400 high). Insufficient posts next to bridge. Creased, 500mm torn @ NE, functional.
Approach Bump		5	6	
Guardrail (Y/N)	Yes			
Guardrail		4	4	
Length (m)	93.700			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		4	4	Drain trough under N abut leaking and scour hole underneath 1m deep.
<b>Approach Road General Rating</b>		<b>5</b>	<b>5</b>	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>WG, 5 Spans, Lengths(m): 59.4-73.2-73.2-73.2-59.4, A-Ident Number: A0609-01</b> )					
<b>Special Features</b>					
Special Feature			X		
(Type : )					
Catwalk Access		X	X		
(Type : <b>UNLOCKED</b> )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>					
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface		4	7		
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Deck Top		N	N		
Deck Rideability		7	7		
Deck Joints		4	4	Both abutment joint slapping. SE & SW curb cover plate bolts sheared - photo. Abutment side fingers loose. Finger welds broken. Fingers are up 5- 6mm at both abtments.	
Temperature (deg. C)		20			
(Expansion Type : <b>FINGER PLATES</b> )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
22		N. abut (A2)			
55		S. abut (A1)			
Deck Drainage		4	4	Rust showing through concrete, cracked concrete curb at drains.	
Drains Clogged (Y/N)		No			
Curbs/Median		3	3	(Hole in West curb S4 & exposed waterstop - photo. 10-Sep-2010) Some local delam & corrosion staining, typical both sides, spalls - photo. Spalled, corrosion damage in S3. Water stop exposed at several locations along inside curb face.	
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		3			
Bridge Rail		8	7	1 nut missing on A/B in post -1 West - photo. Post grout pads are delaminated to some extent. Base of posts rust stained. Most post anchor bolts flush with nut or less. Nuts missing, insufficient threads, grout pads deteriorating. 1 post cap missing.	
(Type : <b>GALVANIZED STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts		3	3		
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating		7	7		
(Type : <b>GALVANIZED</b> )					
Sidewalk		X	X		
<b>Girder/Beam</b>					
Cover Plate		X	X	Sag 25 mm in girders, typical. 2 stiffeners were never installed. I.P. in longitudinal stiffener splices. Flange plate weld cracks. Bottom lateral gusset plate weld cracks.	
Flange		5	5		
Web		7	7		
Stiffeners		7	3		
Splice		7	5		
Weld		7	4		
Diaphragms/Cross Frame		7	3	weld flaws.	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>WG, 5 Spans, Lengths(m): 59.4-73.2-73.2-73.2-59.4, A-Ident Number: A0609-01</b> )				
Paint Condition		7	7	Fascia side & bottom flanges have been painted.
(Colour Description : <b>GREEN</b> )				
(Colour Code : <b>14090</b> )				
Touchup Required (Y/N)	No			
Bearings		5	5	(Welds are being stressed, one cracked. 00/10/17) P4 grout pad East side chipped. P3, 25mm overextended. Some bearing A/B's missing top nut.-at P4. AB at N. abut (G2) bent. A1,A2,P1,P3,P4 Pier 2 has grout pad deterioration on G4
Temperature (deg. C)	20			
(Expansion Type : <b>SLIDING PLATE;ROCKER BEARING</b> )				
(Fixed Type : <b>PINNED BEARING</b> )				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		6	6	Random transverse hairline cracks with leaching stains & efflorescence.
Stains (Percent Area)	2			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>5</b>	<b>3</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		7	7	
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		7	7	
Wingwalls		7	5	NW has deterioration
Piles		N	N	
Paint/Coating		4	4	Some deterioration to sealer.
Abutment Stability		7	7	
Scour/Erosion		7	7	
<b>Piers/Bents</b>				
(Type : <b>PIER-SOLID</b> )				
Bearing Seats/Caps		7	7	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>0:0:0:0</b> )				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		6	6	
Paint/Coating		4	4	Nose plates 50% rusted. Localized concrete finish flaking. Silver. P1 - theorsheen flaking
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	
Scour		7	7	
Debris (Y/N)	Yes			Drift @ P3
<b>Substructure General Rating</b>		<b>7</b>	<b>7</b>	

Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>W</b> )				
(D/S Direction : <b>E</b> )				
Alignment		8	8	
Bank Stability		8	8	
HWM (m below Top of Curb)				HWM not visible. @ P3
Drift (Y/N)	Yes			
Slope Protection		4	4	Erosion at N headslope from leaking drain trough.
(Type : <b>NATURAL; NATURAL</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>4</b>	<b>4</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2012	Replace missing post A/B nuts (3), tighten loose nuts; patch delam grout pads. Replace missing post cap,					
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS	2012	Patch delams & seal. Patch @ scupper drains.Repair curb spill					
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2012	Repair broken finger welds @ A1 & P2					
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Upgrade guardrail to meet standard.					
OTHER ACTION	2012	Repair scour near A2 trough drain.					
OTHER ACTION	2012	Drill out & replace sheared curb cover plate bolts (A1 joint).					
OTHER ACTION	2012	Patch drain trough.					
OTHER ACTION	2012	Repair broken approach post @ NE					
OTHER ACTION	2013	Welded girder repairs					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>59.2/53.2</b>	Est. Repl. Yr	2030	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection	Girders & bearings painted in fall 2009. Piers & upper shafts were sealed.		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	27-Sep-2015	Previous Inspection Date	10-Sep-2010		
Inspection Cycle (Default) (months)	39				
Comment					