

Bridge Inspection										
Bridge File Number	07138 -1 Bridge				Form Type	PCS				
Year Built/Year Supstr	1971/1971				Lot No.	1				
Bridge or Town Name	CZAR				Inspector Name	Jason Saly				
Located Over	RIBSTONE CREEK, 5.2, WATERCRS-ST				Inspector Class	BR CLS A				
Located On	41:14 C1 52.135				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	27-Nov-2012				
Legal Land Location	NW SEC 9 TWP 40 RGE 6 W4M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-110:48:57, 52:25:51				Data Entry Date	14-Jan-2013				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA22				Review Date	14-Dec-2012				
Clear Roadway/Skew	12.8 / -15 deg. (LHF)				Dept. Reviewer Name	Andrew Smikles				
AADT/Year	850 / 2011 (A)				Dept. Review Date	17-Jan-2013				
Road Classification	RAU-211.8-110				Follow-Up By					
Detour Length (km)	4									
Allowable Load (t):	Single	CS1 28 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 65 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	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	All are 600mm off line. Hazard markers not required though.									
Other Sign Types										
Utilities (Located at)										
Utility Attachments										
Telephone	West r/w attached to West curb.				Gas	Crossing 150m North.				
Power	4 o/h lines E fence line.				Municipal					
Others					Problem (Y/N)	No				
Remarks										
Approach Road										
			<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>					
Horizontal Alignment			6	6	Gradual curve 150m North with good sight distance. Slight crest curve 200m South.					
Vertical Alignment			7	7						
Roadway Width (m)	11.400				Minor damage @ SW. (Kink @ SE. NE rail incorrect lap @ last section. 17Aug2009). Insufficient length & insufficient posts.					
Approach Bump			6	6						
Guardrail (Y/N)	Yes									
Guardrail			N	5						
Length (m)	23.000									
Current Standard (Y/N)	No									
Termination Type	Turned Down									
Drainage			N	N	Snow covered.					
<b>Approach Road General Rating</b>			<b>6</b>	<b>6</b>						

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>HC, 3 Spans, Lengths(m): 6.1-8.5-6.1, A-Ident Number: )</b>					
<b>Special Features</b>					
Special Feature			X		
(Type : )					
Special Feature			X		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered.
<b>Last</b>	20	0	0	0	
<b>Now</b>	30.0	0.0	0.0	0.0	
Wearing Surface			4	4	(Doesn't go all the way out to curbs (200 - 600mm) - photos. 10mm cracks in ACP between units - photo. 17Aug2009). Wide unsealed cracks @ abuts & piers - photo; A2 chipsealed. Rating based on previous inspector's comments. There are long. cracks reflecting through the chip seal coat.
(Material Type : <b>ACP - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>110</b> )					
Lateral Connection Problem (Y/N)		No			
Deck Top			N	N	ACP covered.
Deck Rideability			6	6	
Deck Joints			N	N	ACP covered. Cracks through the ACP at jnts.
Bump (Y/N)		No			
Deck Drainage			N	4	Snow covered. Damage to girder legs related to drainage btwn girders.
Drains Clogged (Y/N)		No			
Curbs/Median			N	3	(Heavy scaling top S2, West. Spalls on face and outsides getting poor @ S2 - photos. Damage @ P1. 17Aug2009). Spall under post plates at SW corner & at S2G1 at P1. Curbs mostly snow covered.
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		10			
Bridge Rail			N	5	Double layer. Lapped wrong, but structurally fine.  Spall behind post @ SW S2 with rebar exposed.
(Type : <b>GALVANIZED STEEL FLEX BEAM</b> )					
Bridge Rail Posts			3	4	
(Type : <b>GALVANIZED POST STEEL; GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating			N	6	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
<b>Last</b>	0	0	0	0	
<b>Now</b>	0	0	0	2	
Girders			4	3	5/15 of center span girders have hairline/narrow shear cracks. S2 curb units with spall in AZ with cracking in other leg. 28 of 45 have wide long. cracks in one leg in AZ of which 4 have cracking in other leg; all with sound concrete. S2G1 cracking both legs in AZ. S1G6 & S3G6 both legs cracked in AZ. Minor spalling within AZ, 4/45 girders. Spall @ NW curb unit over cap @ S2. S3G7 has 1 leg spall in AZ. S2G1-15 interior legs spall full length with stirrups exposed.
Last Complete Inspection Date		27-Nov-2012			
Cracking (Y/N)		Yes			
Spalling (Percent Area)		2			
Lift or Connector Pocket Grouted (Y/N)		Yes			
(Number Of Girders : <b>45</b> )					
<b>Span Alignment Problems</b>					
Vertical (Y/N)		No		24mm diff S1/2.	
Horizontal (Y/N)		Yes			
<b>Superstructure General Rating</b>			<b>4</b>	<b>3</b>	

Substructure						
Bridge Component		Last	Now	Explanation of Condition		
<b>Abutments</b>						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1300)						
(Total Number of Caps/Corbels : 3:3)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>	0	0	0	0		
<b>Now</b>	0	0	0	0		
Bearing Seats/Caps/Corbels				7	6	
(Type : TREATED TIMBER)						
(Depth(mm) : 350)						
(Width(mm) : 300)						
Backwalls/Breastwalls			6	6	SW corner top plank damaged, still functions @ A1.	
Greatest Height (m)		1.10				
Wingwalls			6	N	Extended backwall - Snow covered.	
(Total Number of Bearing Piles : 0:0)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>	100	0	0	0		
<b>Now</b>	100	0	0	0		
Piles				N	N	Headslope to underside of caps.
Paint/Coating				X	X	
Abutment Stability				7	7	
Scour/Erosion				4	4	Minor erosion @ SW, center of S1, NW, NE ends of S3.
<b>Piers/Bents</b>						
(Type : PIER-COLUMN)						
(Total Number of Caps/Corbels : 3:3)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>	0	0	0	0		
<b>Now</b>	0	0	0	0		
Bearing Seats/Caps/Corbels				7	5	W end of S pier cap is cracked & slightly spongy.
(Type : TREATED TIMBER)						
(Depth(mm) : 300)						
(Width(mm) : 350)						
(Total Number of Bearing Piles : 11:11)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
<b>Last</b>	0	0	0	0		
<b>Now</b>	0	0	0	0		
Pier Shaft/Piles				5	5	W pile on S pier has wide vertical ck.
Greatest Height (m)		2.50		Measured pier 1.		
Bracing/Struts/Sheathing			6	6		
Nose Plate			X	X		
Paint/Coating			X	X		
(Colour Description : )						
(Colour Code : )						

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Pier Stability		7	7	
Scour		7	N	Ice covered.
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>5</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Channel</b>				
(U/S Direction : <b>W</b> )				
(D/S Direction : <b>E</b> )				
Alignment		7	7	
Bank Stability		N	N	Snow covered.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		5	5	South bank only, rest natural small rock.
(Type : <b>RIP RAP; NATURAL</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>5</b>	

Maintenance Recommendations										
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #				
REPAIR/REPLACE BRIDGE RAIL										
SEAL CURBS	2013	Patch spalls and popouts, 0.3 m(3) OH-V.								
PATCH DECK										
OVERLAY DECK										
STRAIGHTEN/REPLACE MEMBERS										
WASHING										
SHOTCRETE REPAIRS										
CORE TIMBER CAPS/CORBELS	2013	Core caps & piles.								
REPAIR/REPLACE TIMBER CAPS										
REPAIR ABUTMENT SCOUR/EROSION										
PLACE ADDITIONAL RIP RAP										
REMOVE DRIFT ACCUMULATION										
INSTALL STRUTS										
OTHER ACTION	2013	Seal cracks in chip seal coat.								
OTHER ACTION	2013	Patch girder legs or monitor.								
OTHER ACTION	2013	Consider reinforced concrete overlay to protect girders.								
OTHER ACTION	2013	Assess rehab/repalce options before major repairs.								
OTHER ACTION										
OTHER ACTION										
<b>Structural Condition Rating (Last/Now)</b>	<b>50.0/44.4</b>	<b>Sufficiency Rating (Last/Now)</b>	<b>61.9/60.3</b>	<b>Est. Repl. Yr</b>	<b>2025</b>	<b>Maint. Reqd. (Y/N)</b>	<b>Yes</b>	<b>Estimated Total</b>	<b>0</b>	
Special Comments for Next Inspection	Continue regular inspections for "3" rated girders; no further action required at this time. No action required for minor hslp erosion rated "4".		Department Comments							
Maintenance Reviewed By			Date							
Proposed Long-Term Strategy	2008.01.30 ACP to be removed, connectors to be repaired as necessary and max. 50mm ACP to be placed. Bridge should be good until 2025 with normal maintenance.									
On 3-Year Program (Y/N)										
Proposed Action										
Previous Inspector's Name	Jason Saly		Previous Assistant's Name							
Next Inspection Date	27-Aug-2014		Previous Inspection Date	08-Mar-2011						
Inspection Cycle (Default) (months)	21									
Comment										

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
SEAL CURBS	2013	Patch spalls and popouts, 0.3 m(3) OH-V.	defer until next rehab			
PATCH DECK						
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS	2013	Core caps & piles.	placed on 2013 coring list	2013		
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION	2013	Seal cracks in chip seal coat.	to operations			
OTHER ACTION	2013	Patch girder legs or monitor.	when next on site			
OTHER ACTION	2013	Consider reinforced concrete overlay to protect girders.	consider for future assessment			
OTHER ACTION	2013	Assess rehab/repalce options before major repairs.	consider for future assessment			
OTHER ACTION						
OTHER ACTION						
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>50.0/44.4</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>61.9/60.3</b>	Est. Repl. Yr	2025	Maint. Req. (Y/N) Yes
Special Comments for Next Inspection	Continue regular inspections for "3" rated girders; no further action required at this time. No action required for minor hslp erosion rated "4".		Department Comments	Tentatively scheduled for replacement in 2023		
Maintenance Reviewed By	John Umlah	Date	24-Apr-2013	Estimated Total	0	
Proposed Long-Term Strategy	2008.01.30 ACP to be removed, connectors to be repaired as necessary and max. 50mm ACP to be placed. Bridge should be good until 2025 with normal maintenance.					
On 3-Year Program (Y/N)						
Proposed Action						

Previous Inspector's Name	Jason Saly	Previous Assistant's Name	
Next Inspection Date	27-Aug-2014	Previous Inspection Date	08-Mar-2011
Inspection Cycle (Default) (months)	21		
Comment			