

Bridge Inspection											
Bridge File Number	79210 S-2 Bridge				Form Type	PSR					
Year Built/Year Supstr	1982/1982				Lot No.	1					
Bridge or Town Name	CALGARY - IVOR STRONG BRIDGE				Inspector Name	Garry Roberts					
Located Over	RAMP 4097-1 F;BOW RIVER, 2.13, WATERCRS-ST				Inspector Class	BR CLS A					
Located On	2:15 L1 20.007				Assistant Name						
Water Body Cl./Year					Assistant Class						
Navigabil. Cl./Year					Inspection Date	27-Jan-2013					
Legal Land Location	SW SEC 13 TWP 23 RGE 1 W5M				Data Entry By	Lauren Korte					
Longitude, Latitude	-114:01:07, 50:57:08				Data Entry Date	15-Feb-2013					
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Tom Carey					
Contract Main. Area	DEERFOOT/STONE Y				Review Date	30-Jan-2013					
Clear Roadway/Skew	14.3 /				Dept. Reviewer Name	Tim Davies					
AADT/Year	117,760 / 2011 (A)				Dept. Review Date	21-Feb-2013					
Road Classification	RFD-412.4-130				Follow-Up By						
Detour Length (km)	1										
Allowable Load (t):	Single	CS1 28			Semi	CS2 49			Train	CS3 62	----> On Critical Spans ---->Critical Member
Design Loading:	HS25									----> Primary Span	

Posting Information										
Required Vert. Clearance Posting (m)	UNDER: 4097-1-F 4.9m									
Posted Vertical Clearance (Y/N)										
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)	In Advance (Y/N)
Remarks	Not required.									
Required Load Posting (t)	Single				Semi				Truck Train	
Posted Loading (t)	Single				Semi				Truck Train	
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)				At Bridge (Y/N)	
Posted:	Lane	SB	At Junction (Y/N)		In Advance (Y/N)				At Bridge (Y/N)	
Remarks	Not required.									
Hazard Marker At Bridge (Y/N)	No									
Remarks	Not required.									
Other Sign Types	Route Merge.									

Utilities (Located at)										
Utility Attachments	POWER UTILITIES-POWER LINE									
Telephone	In area.				Gas					
Power	Sub station to SW.				Municipal					
Others	Light standards.				Problem (Y/N)		No			
Remarks	Conduits at deck underside North - lighting underside at North.									

Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			5	5	Curves-ramp @ North. B3121A				
Vertical Alignment			6	7					
Roadway Width (m)			15.000		(Wide cracks and delaminations in North approach)- paved over. Several patched areas in south approach. Pothole at merge lane now A.C.P covered. Minor pothole at North.				
Approach Bump			4	4					
Guardrail (Y/N)			Yes		Parapets.				
Guardrail			5	5	Insufficient length - only 3m at SW. Not thriebeam.				
Length (m)			39.000						
Current Standard (Y/N)			No						
Termination Type			TURNDOWN						
Drainage			7	7					
<b>Approach Road General Rating</b>			<b>5</b>	<b>5</b>					

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : <b>PB, 5 Spans, Lengths(m): 35-48-48-48-35, A-Ident Number: )</b>						
<b>Special Features</b>						
Special Feature			X	Access hatch to roof slab.		
(Type : )						
Special Feature			X			
(Type : )						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
<b>Last</b>	0	0	0	0		
<b>Now</b>	20.0	0.0	0.0	0.0		
Wearing Surface			6	6	Viewed from 4 1/4 points of deck. No visible problems.	
(Material Type : )						
(Thickness(mm) : )						
Lateral Connection Problem (Y/N)		No				
Deck Top			N	N		
Deck Rideability			7	7		
Deck Joints			4	4	4 gland joint - all gaps @ 45mm- at North abut. 3 gland joint - 45mm - 55mm - 505mm gaps at South abut. Surface spalls @ anchors. Bangs at North abut at center and may be loose.	
Temperature (deg. C)		-7				
(Expansion Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )						
(Fixed Type : )						
Gap Size (mm)		Gap Location				
45		N abut				
55		S abut				
Deck Drainage			7	7		
Drains Clogged (Y/N)		No				
Curbs/Median			3	3	New center parapet. Isolated cracks and corrosion @ West. Exterior of parapet spalled with exposed rebar at top and bottom areas at SW over path.	
(Curb Type : <b>JERSEY/F SHAPE</b> )						
Scaling (Percent Area)		2				
Bridge Rail			X	X		
(Type : )						
Bridge Rail Posts			X	X		
(Type : )						
Bridge Rail/Posts Coating			X	X		
(Type : )						
Sidewalk			N	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	1		
Girders			6	3	Narrow cracks @ fascia. Partial grout missing at PT recess at Sp.1 G3 with strand exposed and corroded.  3 continuous lines.	
Cracking (Y/N)		Yes				
Spalling (Percent Area)		1				
(Number Of Girders : <b>15</b> )						
Diaphragms/Cross Frame			7	7		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>PB, 5 Spans, Lengths(m): 35-48-48-48-35, A-Ident Number: )</b>				
Bearings		6	6	West bearings @ North & South piers have masonry plate projecting over pier  10% corrosion.
Temperature (deg. C)	-7			
(Expansion Type : <b>POT BEARING</b> )				
(Fixed Type : <b>POT BEARING</b> )				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		6	6	Corrosion stains @ parapet joints @ exteriors.
Stains (Percent Area)	1			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>6</b>	<b>3</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		8	8	New expanded metal to keep pigeons out.
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	Buried.
Paint/Coating		6	5	
Abutment Stability		7	7	
Scour/Erosion		7	7	
<b>Piers/Bents</b>				
(Type : <b>PIER-SOLID</b> )				
Bearing Seats/Caps		8	8	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>0:0:0:0</b> )				
Pier Shaft/Piles		8	8	HWM guage at P2.
Bracing/Struts/Sheathing		X	X	
Nose Plate		N	N	Submerged.
Paint/Coating		5	5	
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	
Scour		N	N	Water too fast too see.
Debris (Y/N)	No			
<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>E</b> )				
(D/S Direction : <b>W</b> )				
Alignment		7	7	
Bank Stability		5	6	Steep cut @ West - Mechanically stabilized.
HWM (m below Top of Curb)				No visible HWM.
Drift (Y/N)	No			
Slope Protection		5	6	Natural @ banks with class 1m @ North headslope.
(Type : <b>CONCRETE; CONCRETE</b> )				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	7	
(Fish Compensation Measure 1 : <b>NONE</b> )				
(Fish Compensation Measure 2 : <b>NONE</b> )				
<b>Channel General Rating</b>		<b>5</b>	<b>6</b>	
<b>Grade Separation</b>				
Road Alignment		5	5	Local road at Sp.1. Ped paths at sp.2 and 5.
Traffic Safety Features		X	X	
Type				
Slope Protection		4	4	Open gaps at NW and at NW and SW wings.
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		6	6	
Drainage		6	6	
<b>Grade Separation 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							
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2013	Patch exteriors at South West.					
PATCH DECK							
SEAL DECK							
OVERLAY DECK	2013	Replace North roof slab.					
REPAIR/REPLACE DECK JOINTS	2013	Investigate noise at North abutment joint - shim as required. Sr replace with new.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Seal cracks in approaches at South - patch pothole at North approach.					
OTHER ACTION	2013	Grout PT points @ East girder @ S span- 2 points.					
OTHER ACTION	2013	Reinstall pigeon mesh at NE.					
OTHER ACTION	2013	Seal NW concrete slope protection.					
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>72.2/55.6</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>56.2/46.4</b>	Est. Repl. Yr	2046	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection			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	Tom Carey		Previous Assistant's Name				
Next Inspection Date	27-Oct-2014		Previous Inspection Date	22-Apr-2011			
Inspection Cycle (Default) (months)	21						
Comment							