Bridge Inspection

Bridge File Number	79436 -1 Bridge	Form Type	SG
Year Built/Year Supstr	1983/1983	Lot No.	2
		Inspector Name	Owen Salava
Bridge or Town Name	HARDISTY	Inspector Class	BR CLS A
Located Over	CPR	Assistant Name	
Located On	881:02 C1 2.359	Assistant Class	
Water Body Cl./Year		Inspection Date	09-Aug-2011
Navigabil. Cl./Year		Data Entry By	Marcia Chavez
Legal Land Location	NW SEC 6 TWP 43 RGE 9 W4M	Data Entry Date	19-Sep-2011
Longitude, Latitude	-111:18:00, 52:40:34	Reviewer Name	John O'Brien
Road Authority	Alberta Transportation (AIT)	Review Date	16-Aug-2011
Contract Main. Area	CMA16	Dept. Reviewer Name	Andrew Smikles
Clear Roadway/Skew	9 /	Dept. Review Date	26-Sep-2011
AADT/Year	1,020 / 2010 (A)	Follow-Up By	
Road Classification	RCU-209-110		
Detour Length (km)	5		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans ---->Critical Member	
Design Loading:		MS300					---> Primary Span	

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				No							
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)	No	Lane	SB	On Bridge (m)		In Advance (Y/N)	No
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)	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	S end markers too low, off line. - OK
Other Sign Types	50km/h; Dangerous Goods Route

Utilities (Located at)

Utility Attachments			
Telephone	2 cables in W curb - conduit.	Gas	W r/w ATCO.
Power		Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		8	8	Entering into Hardisty town limits.
Vertical Alignment		5	5	Speed limit of 50 km/hr posted. On blind vertical crest curve. Curb & gutter on S. app where CR widens to 12.2 m in town. S. end hazard markers not in line with rail.
Roadway Width (m)	9.000			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			On N end only for 200 m.
Guardrail		7	7	
Length (m)	99.000			Insufficient posts/spacing/blocking.
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		7	7	Shoulder spalled at SW trough drain.

Approach Road

	Last	Now	Explanation of Condition
Approach Road General Rating	**5**	**5**	

Superstructure

Bridge Component	Last	Now	Explanation of Condition
(Primary Span : **WG, 3 Spans, Lengths(m): 14-16-14, A-Ident Number: A0934-01**)			
Special Features			
Special Feature		X	
(Type :)			
Special Feature		X	
(Type :)			
Wearing Surface/Deck Top Detail Ratings			
Wearing Surface	6	6	(Random narrow transverse cracking. 27Jul2007). 10mm thickness.
(Material Type : **CONVENTIONAL CHIP SEAL COAT**)			
(Thickness(mm) :)			
Deck Top	X	X	
Deck Rideability	7	7	
Deck Joints	5	5	
Deck Drainage	8	8	All drainage to south abut.
Curbs/Median	6	6	Jersey type cast in place curbs with hairline cracks every 0.3m.
(Curb Type : **JERSEY/F SHAPE**)			
Bridge Rail	8	8	Single 75 x 50 mm HSS tube rail on top of jersey barrier.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)			
Bridge Rail Posts	8	8	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)			
Bridge Rail/Posts Coating	8	8	
(Type : **GALVANIZED**)			
Sidewalk	8	8	On east side of structure with 1100 mm vertical slat railing.

	N (%)	1 (%)	2 (%)	3 (%)
Last	0	0	0	0
Now	0.0	0.0	0.0	0.0

Temperature (deg. C): 19

(Expansion Type : **ARMOURED GLAND (WABO UNDER FINGER OR SLIDING PLATES)**)

(Fixed Type :)

Gap Size (mm)	Gap Location
65	N. abut
102	S. abut

Drains Clogged (Y/N):

Scaling (Percent Area): 0

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **WG, 3 Spans, Lengths(m): 14-16-14, A-Ident Number: A0934-01**)				
Girder/Beam				
Cover Plate		8	X	
Flange		8	8	
Web		8	8	
Stiffeners		8	8	
Splice		8	8	
Weld		8	8	
Diaphragms/Cross Frame		8	8	
Paint Condition		7	7	Weathering steel with excessive graffiti sprayed onto ends of girders @ abuts.
(Colour Description :)				
(Colour Code :)				
Touchup Required (Y/N)	No			
Bearings		8	8	A1 P1,2 & A2.
Temperature (deg. C)	19			
(Expansion Type : **REINFORCED PAD BEARING**)				
(Fixed Type : **PINNED BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		8	8	Exhaust soot.
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**8**	**8**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		5	5	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		6	6	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		7	7	Graffitti
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				Spot rusting.
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **6:6**)				
Pier Shaft/Piles		8	8	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Paint/Coating		5	5	Faded. Yellow.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		8	8	
Debris (Y/N)	No			
Substructure General Rating		**7**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		X	X	
Traffic Safety Features		X	X	
Type				
Slope Protection		6	6	Settled at N & S 50mm.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		8	8	
Drainage		8	8	
Grade Separation General Rating		**6**	**6**	

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						
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	Patch trough spall at SW, 0.1m3 concrete.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**83.3/72.2**	**Sufficiency Rating (Last/Now) (%)**	**73.1/69.2**	Est. Repl. Yr	2047	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0
Proposed Long-Term Strategy	2005.03.30 Rehab in 2020. Bridge should be good until 2080.				
On 3-Year Program (Y/N)					
Proposed Action					
Previous Inspector's Name	Randy Bredo	Previous Assistant's Name			
Next Inspection Date	09-Nov-2014	Previous Inspection Date	27-Jul-2007		
Inspection Cycle (Default) (months)	39				
Comment					