Bridge Inspection

Bridge File Number	76566 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1970/1970	Lot No.	2
		Inspector Name	Garry Roberts
Bridge or Town Name	EXSHAW	Inspector Class	BR CLS A
Located Over	1:02 L1 22.888;1:02 R1 22.955	Assistant Name	
Located On	25129:02 C1 0.170	Assistant Class	
Water Body Cl./Year		Inspection Date	08-Feb-2012
Navigabil. Cl./Year		Data Entry By	Lauren Korte
Legal Land Location	NW SEC 14 TWP 24 RGE 9 W5M	Data Entry Date	13-Mar-2012
Longitude, Latitude	-115:09:49, 51:02:57	Reviewer Name	Tom Carey
Road Authority	Alberta Transportation (AIT)	Review Date	22-Feb-2012
Contract Main. Area	CMA28	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9.1 / 26 deg. (RHF)	Dept. Review Date	22-Mar-2012
AADT/Year	100 / 1988 (E)	Follow-Up By	
Road Classification	RLU-208-100		
Detour Length (km)	16		

Allowable Load (t):	Single	CS1 37	Semi	CS2 64	Train	CS3 91	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Vert. Clearance Posting (m)				UNDER: 1 L1 6.6m, 1 R1 5.1m							
Posted Vertical Clearance (Y/N)				Yes							
Posted:	Lane	EB	On Bridge (m)	5.2	In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)		In Advance (Y/N)	Yes
Remarks	W/B sign missing from bridge.										

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)	No
Remarks	
Other Sign Types	ROUTE curves

Utilities (Located at)

Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone	FIBRE OPTICS IN MEDIAN @ PIER	Gas	
Power	3 WIRE MAIN 70 m SOUTH	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		4	4	Crest curve on bridge Sharp corner at S. end
Vertical Alignment		4	4	
Roadway Width (m)	9.100			
Approach Bump		6	5	
Guardrail (Y/N)	Yes			Bolt pulled through with 1 broken and 1 split post at NW guardrail and 1 split post at SE. Short splice and missing 4 bolts at NE Not thriebeam
Guardrail		3	3	
Length (m)	26.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		7	7	
Approach Road General Rating		**4**	**4**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **FC, 2 Spans, Lengths(m): 36.6-36.6, A-Ident Number:**)				
Special Features				
Special Feature		7	7	Dyiwidag girder strengthing.
(Type : **EXT LATER POST TENS**)				
Special Feature			X	
(Type :)				

Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
Last	0	0	0	0	
Now	0.0	0.0	0.0	0.0	

Wearing Surface		7	7	
(Material Type : **CONCRETE**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		7	4	Median cover plate at Al is bent 80mm and torn 100mm in NBL.
Temperature (deg. C)	-8			
(Expansion Type : **ARMOURED GLAND (WABO UNDER FINGER OR SLIDING PLATES)**)				
(Fixed Type :)				

Gap Size (mm)	Gap Location
95	South
85	C. pier
110	North

Deck Drainage		7	7	
Drains Clogged (Y/N)	No			
Curbs/Median		7	7	
(Curb Type : **JERSEY/F SHAPE**)				
Scaling (Percent Area)	1			
Bridge Rail		X	X	
(Type :)				
Bridge Rail Posts		X	X	
(Type :)				
Bridge Rail/Posts Coating		X	X	
(Type :)				
Sidewalk		X	X	

Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	0	

Girders		4	4	CORROSION CRACKS @ GIRDERS HAVE BEEN REPAIRED. Minor spall @ SE exterior Medium width vert cracks at end @ SE and typ. chamfer cracks. Narrow cracks avg 300 mm long in bottom of webs at all abut girders. Minor high load damage Sp1 - G7 curb
Cracking (Y/N)	Yes			
Spalling (Percent Area)	2			
(Number Of Girders : **14**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FC, 2 Spans, Lengths(m): 36.6-36.6, A-Ident Number:**)				
Diaphragms/Cross Frame		6	6	
Bearings		4	4	Several pads are compressed especially curb units. 50% corrosion. NE and NW bearings @ North abut are slid ahead of bottom neoprene pad - marked 140mm @ NE and 71mm @ NW - no change
Temperature (deg. C)	-8			
(Expansion Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
(Fixed Type : **REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL**)				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		5	5	Corrosion and scaling @ weep draining @ deck underside - Sealed off with concrete overlay with no current leakage
Stains (Percent Area)	5			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**4**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		6	6	
Wingwalls		6	6	
Piles		N	N	Buried.
Paint/Coating		5	5	
Abutment Stability		5	5	
Scour/Erosion		X	X	
Piers/Bents				
(Type : **PIER-COLUMN**)				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **0**)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	Staining is previous to joint installation.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		7	6	Curve and grade East.
Traffic Safety Features		3	3	Wrong lap all ends. 1 post missing at median and 1 split post at North Shoulder.
Type	GUARDRAIL			
Slope Protection		7	7	
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		7	7	
Drainage		7	7	
Grade Separation General Rating		**3**	**3**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2012	Install 7 posts-1 post bolt-4 splice bolts				
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2012	Repair or replace median coverplate.				
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION						
OTHER ACTION	2012	Install 6.6m V.C sign on bridge				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**50.0/50.0**	**Sufficiency Rating (Last/Now) (%)**	**56.6/56.6**	Est. Repl. Yr	2025	Maint. Reqd. (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	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	08-Nov-2013	Previous Inspection Date	27-Sep-2010
Inspection Cycle (Default) (months)	21		
Comment			