

Bridge Inspection											
Bridge File Number	76650 N-1 Bridge					Form Type	PSR				
Year Built/Year Supstr	1974/1974					Lot No.	2				
Bridge or Town Name	CLOVERBAR 09					Inspector Name	Kris Bosters				
Located Over	RAMP 88-1 A;CPR					Inspector Class	BR CLS A				
Located On	216:04 L1 0.719					Assistant Name					
Water Body Cl./Year						Assistant Class					
Navigabil. Cl./Year						Inspection Date	04-Apr-2011				
Legal Land Location	NW SEC 9 TWP 53 RGE 23 W4M					Data Entry By	Theresa Lacusta				
Longitude, Latitude	-113:20:37, 53:33:54					Data Entry Date	18-Apr-2011				
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Arnold Assenheimer				
Contract Main. Area	CMA09					Review Date	11-Apr-2011				
Clear Roadway/Skew	12.2 / 48 deg. (RHF)					Dept. Reviewer Name	Brent Herrick				
AADT/Year	42,840 / 2009 (A)					Dept. Review Date	19-Apr-2011				
Road Classification	RAU-213.4-120					Follow-Up By					
Detour Length (km)	1										
Allowable Load (t):	Single	CS1 39 GIRDER			Semi	CS2 49		Train	CS3 62		----> On Critical Spans ---->Critical Member
Design Loading:	HS20					----> Primary Span					

Posting Information												
Required Vert. Clearance Posting (m)					UNDER: 88-1-A 6.7m							
Posted Vertical Clearance (Y/N)					Yes							
Posted:	Lane	NB	On Bridge (m)	6.6	In Advance (Y/N)		Lane	SB	On Bridge (m)		In Advance (Y/N)	No
Remarks		SB 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)		In Advance (Y/N)		At Bridge (Y/N)					
Remarks		Not required										
Hazard Marker At Bridge (Y/N)			No									
Remarks		Not required										
Other Sign Types			Information, Route, Speed, Curve.									

Utilities (Located at)														
Utility Attachments														
Telephone					Gas					Under bridge & NW & NE.				
Power					Municipal									
Others					Light standards.					Problem (Y/N) No				
Remarks														

Approach Road											
			Last	Now	Explanation of Condition						
Horizontal Alignment			6	6	Typical alignment of grade separation.						
Vertical Alignment			7	7							
Roadway Width (m)		12.500									
Approach Bump			6	6							
Guardrail (Y/N)		Yes		2 sections rail and 2 posts damaged SE.-photo							
Guardrail			6	4							
Length (m)		99.000									
Current Standard (Y/N)		No									
Termination Type		Turned Down									
Drainage			7	7							
Approach Road General Rating			6	6							

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : FC, 4 Spans, Lengths(m): 24.4-32-32-18.3, A-Ident Number:)					
Special Features					
Special Feature		7	7	Underslung beams.	
(Type : EXT LATER POST TENS)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow/gravel on curbs.
Last	0	0	0	0	
Now	15.0	0.0	0.0	0.0	
Wearing Surface		5	5	Small 300mm x 300mm patch missing @ N. end of P1. Worn out joints.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 50)					
Lateral Connection Problem (Y/N)	No				
Deck Top		N	N		
Deck Rideability		7	7		
Deck Joints		3	3	Over abutments, fingers. Over piers, gland. Missing 2 fingers N joint. Missing 1 finger S joint. 2 plow guards missing over pier 3, 2 missing P2, 1 missing @ P1. Pier joints appear to be leaking as evident by condition of caps.	
Temperature (deg. C)	8				
(Expansion Type : FINGER PLATES;GLAND (WABO-MAUER, TRANSFLEX, ETC))					
(Fixed Type : GLAND (WABO-MAUER, TRANSFLEX, ETC))					
Gap Size (mm)	Gap Location				
45	North abutment-Exp.				
72	Pier 3				
75	Pier 2				
78	Pier 1				
70	South abutment-Exp				
Deck Drainage		5	5	(Ponding along East curb. Insufficient drains.Aug 25, 2007)	
Drains Clogged (Y/N)	No			Hole inACP at SW curb, allows water to drain under curb.-photo	
Curbs/Median		4	4	Spalls on East curb S1. S4 and outside face of E. curb @ P3.	
(Curb Type : Standard)					
Scaling (Percent Area)				Also spall @ outside face of W. curb @ P2 & P3. West curb over S. approach slab has grader damage over 4m length.(photo)	
Bridge Rail		8	8	Insufficient threads at approx 5% of posts.	
(Type : GALVANIZED STEEL BRIDGE TUBE)					
Bridge Rail Posts		4	4		
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating		8	8		
(Type : GALVANIZED)					
Sidewalk		X	X		
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now					

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : FC, 4 Spans, Lengths(m): 24.4-32-32-18.3, A-Ident Number:)				
Girders		5	5	Typical FC chamfer cracks, rust spots on girders. S4-G8 rust spot with narrow crack on 1 leg. 80% of girders have typical FC cracks. 13 girders have rust spots.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : 32)				
Diaphragms/Cross Frame		5	5	Almost all diaphragms cracked over piers and both abutments diagonally and vertically.
Bearings		7	7	Fixed at piers.
Temperature (deg. C)	8			
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)				
(Fixed Type : REINFORCED PAD BEARING)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		4	4	ASpall underside of S168 near A1. Spall under S1G4. Spall S1G8 near midspan. Spall under S2G4 near midspan.
Stains (Percent Area)	1			
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		5	5	
(Type : CONCRETE)				
Backwalls/Breastwalls		5	5	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		4	4	Peeling.
Abutment Stability		7	7	
Scour/Erosion		X	X	
Piers/Bents				
(Type : PIER-COLUMN)				Delam cracks on the North face, East end and underside E. end of the P3 cap- photo. Med. crack on top of P1 @ S.side under W. leg of G8. Delam ck on top of P2@N. side under W. leg of G11. Delam ck. on top of P2 under G6/1G8 approx. 3m long.
Bearing Seats/Caps		4	3	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		5	5	
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		4	3	
Structure Usage				
		Last	Now	Explanation of Condition
Grade Separation				
Road Alignment		7	7	
Traffic Safety Features		7	3	
Type	Guardrail			
Slope Protection		6	5	3 posts @ S sections rail damaged SW-photo
(Type : CONCRETE; CONCRETE)				
Bank Stability		6	6	Blocks have settled 100mm top of backslope NE corner.
Drainage		6	6	
Grade Separation General Rating		6	3	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL							
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2011	Investigate/confirm leakage.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2011	Replaced damaged guardrail.					
OTHER ACTION	2011	Repair pier cap delaminations.					
OTHER ACTION	2011	Repair curb spalling.					
OTHER ACTION	2011	Patch hole in ACP at West curb.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/38.9	Sufficiency Rating (Last/Now) (%)	46.0/38.7	Est. Repl. Yr	2035	Maint. Req'd. (Y/N)	Yes
Special Comments for Next Inspection	Monitor deck underside spalls, delam cracks on pier seat. Monitor curb spalls.		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	Kris Bosters			
Next Inspection Date	04-Jan-2013		Previous Inspection Date	24-Jun-2009			
Inspection Cycle (Default) (months)	21						
Comment							