

Bridge Inspection									
Bridge File Number	76652 -1 Bridge				Form Type	SG			
Year Built/Year Supstr	1971/1971				Lot No.	1			
Bridge or Town Name	CLOVERBAR 10				Inspector Name	Shane Hall			
Located Over	16:18 L1 0.809;16:18 R1 0.803				Inspector Class	BR CLS A			
Located On	216:04 R1 0.169;216:04 L1 0.133				Assistant Name				
Water Body Cl./Year					Assistant Class				
Navigabil. Cl./Year					Inspection Date	29-Sep-2010			
Legal Land Location	NE SEC 8 TWP 53 RGE 23 W4M				Data Entry By	Janie Assenheimer			
Longitude, Latitude	-113:20:42, 53:34:13				Data Entry Date	15-Oct-2010			
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Arnold Assenheimer			
Contract Main. Area	CMA09				Review Date	29-Sep-2010			
Clear Roadway/Skew	14.5 /				Dept. Reviewer Name	Brent Herrick			
AADT/Year	42,840 / 2009 (A)				Dept. Review Date	26-Oct-2010			
Road Classification	RAU-211.8-110				Follow-Up By				
Detour Length (km)	3								
Allowable Load (t):	Single		Semi		Train		----> On Critical Spans ---->Critical Member		
Design Loading:	HS20				----> Primary Span				

Posting Information												
Required Vert. Clearance Posting (m)	UNDER: 16 L1 5.3m, 16 R1 5.3m											
Posted Vertical Clearance (Y/N)	Yes											
Posted:	Lane	EB	On Bridge (m)	5.3	In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)	5.3	In Advance (Y/N)	Yes
Remarks												
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	Not required.											
Other Sign Types												

Utilities (Located at)												
Utility Attachments	POWER UTILITIES-POWER LINE											
Telephone					Gas	Oil Pipeline E. r/w.						
Power	Box @ SW Corner				Municipal							
Others	Lights/power conduit @ abuts.				Problem (Y/N)	No						
Remarks												

Approach Road									
			Last	Now	Explanation of Condition				
Horizontal Alignment			6	6	Intersection to highway 16 West @ North. Turnout lanes south. Limited sight distance for on-ramp from Eastbound HWY 16.  Large trucks bounce on and off deck in S.B.L.				
Vertical Alignment			7	7					
Roadway Width (m)	14.500				3 sections damaged @ SE corner (photo). 1 damaged section @ NW corner (photo).				
Approach Bump			5	4					
Guardrail (Y/N)	Yes								
Guardrail			5	4					
Length (m)	23.100								
Current Standard (Y/N)	No								
Termination Type	Turned Down								
Drainage			6	6					

Approach Road					
		Last	Now	Explanation of Condition	
<b>Approach Road General Rating</b>		<b>6</b>	<b>4</b>		
Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>WG, 2 Spans, Lengths(m): 35.1-35.1, A-Ident Number: A0647-01</b> )					
Special Features					
Special Feature			X		
(Type : )					
Special Feature			X		
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>	30				
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface		5	5	Chipcoat on polymer on HDOL.	
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Deck Top		N	N		
Deck Rideability		7	7		
Deck Joints		3	3	Finger plate @ S. abut N.B.L. on road side is loose and slaps under traffic (photo). Cover plate @ NE parapet rusted through (photo).	
Temperature (deg. C)		10			
(Expansion Type : <b>FINGER PLATES</b> )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
25		A2 North Abutment			
40		A1 South Abutment			
Deck Drainage		N	5	No drains.	
Drains Clogged (Y/N)		No			
Curbs/Median		3	3	Vertical cracks & corrosion stains on parapets. Numerous spalls/delams on E & W parapets. spalls @ NW, SW @ outside parapet fascia (photos). Cracks on curb underside at NE & SW. Numerous patches. Spall at underside of SE corner. Numerous spalls on curb median (photo).	
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		5			
Bridge Rail		5	5	Steel rail on concrete parapet.	
(Type : <b>GALVANIZED STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts		5	4	Spalling on East & West parapet at rail connection at numerous locations.	
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating		6	6	Paint has peeled - galvanizing is intact.	
(Type : <b>GALVANIZED</b> )					
Sidewalk		X	X		

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>WG, 2 Spans, Lengths(m): 35.1-35.1, A-Ident Number: A0647-01</b> )				
<b>Girder/Beam</b>				
Cover Plate		X	X	High load impact S2G4 (WB lanes). (Crack in flange S2G4 & S2G3 above WB lanes, passing lanes - 23-Jan-2007). Damage (above) at lower edge of web & dented as well.  Inspected with binoculars; could not confirm crack. Rating carried forward.  4 girders/span.
Flange		2	2	
Web		4	4	
Stiffeners		X	X	
Splice		X	X	
Weld		7	7	
Diaphragms/Cross Frame		6	6	
Paint Condition		4	4	Paint failed at girder ends, bottom flange.
(Colour Description : <b>BLUE</b> )				
(Colour Code : <b>502-105</b> )				
Touchup Required (Y/N)	Yes			
Bearings		4	4	Anchor bolts on the bearings @ south abutment bent - 10 to 25 mm. North abutment exterior bearing A/B bent 40 mm. Bearing sole plates have significant pack rust (photo).
Temperature (deg. C)	12			
(Expansion Type : <b>REINFORCED PAD BEARING</b> )				
(Fixed Type : <b>REINFORCED PAD BEARING</b> )				
Coating Adequate (Y/N)	No			
Functioning (Y/N)	Yes			
Deck Underside		6	4	Could only inspect deck underside between box girders. Minor transverse cracking. Map cracking and efflorescence between G3 & G4 at A1 (photo).
Stains (Percent Area)	1			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	Yes			Bridge is on a curve, Combination of pack rust on sole plates and settling of approaches causing approach bumps.
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>2</b>	<b>2</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		5	3	Bearing seats at all 4 corners have wide cracks and spalling (photo). Bearing seat @ NE corner has large spall, remaining concrete is soft beginning to affect grout pad under girder bearing (photo).
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		5	5	
Wingwalls		4	5	
Piles		N	N	
Paint/Coating		4	4	
Abutment Stability		5	5	
Scour/Erosion		N	N	
<b>Piers/Bents</b>				
(Type : <b>PIER-COLUMN</b> )				Minor horizontal hairline cracking.
Bearing Seats/Caps		X	X	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>4</b> )				
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	

<b>Substructure</b>				
<b>Bridge Component</b>		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
Paint/Coating		5	5	
(Colour Description : <b>BROWN</b> )				
(Colour Code : <b>30252</b> )				
Pier Stability		8	8	
Scour		X	X	
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>3</b>	
<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
<b>Grade Separation</b>				
Road Alignment		7	7	
Traffic Safety Features		7	7	
Type	Guardrail / Lights			Settlement 150mm at South.
Slope Protection		5	5	
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		6	6	
Drainage		7	7	
<b>Grade Separation General Rating</b>		<b>6</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							
RETROFIT BRIDGE RAIL							
SEAL CURBS	2011	Patch curb parapets and median.					
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2011	Repair rubber membrane all 4 corners, repair loose finger plate SE corner.					
RESET/ PAINT BEARINGS	2011	Replace sole plates and reset bearings once joints are repaired.					
REPAINT SUPERSTRUCTURE	2011	Repaint girder ends damaged by leaking joints.					
STRAIGHTEN/REPLACE MEMBERS							
WASHING	2011						
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2011	Level 2 girder inspection to investigate crack like defect G1-G4 S2. (If not yet done.)					
OTHER ACTION	2011	Repair bearing seat spall @ NE corner					
OTHER ACTION	2011	Repair 4 sections of W-beam G.R.					
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>38.9/27.8</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>48.7/29.6</b>	Est. Repl. Yr	2037	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Monitor crack like defects in G4S2 & G3S2 above WB left travel lane.		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	Jason Saly		Previous Assistant's Name				
Next Inspection Date	29-Jun-2012		Previous Inspection Date	06-Dec-2008			
Inspection Cycle (Default) (months)	21						
Comment							