

Bridge Inspection											
Bridge File Number	77088 -1 Bridge				Form Type	PSR					
Year Built/Year Supstr	1978/1978				Lot No.	1					
Bridge or Town Name	SENTINEL				Inspector Name	Garry Roberts					
Located Over	CPR				Inspector Class	BR CLS A					
Located On	3:02 C1 7.395				Assistant Name						
Water Body Cl./Year					Assistant Class						
Navigabil. Cl./Year					Inspection Date	28-Nov-2011					
Legal Land Location	SE SEC 10 TWP 8 RGE 5 W5M				Data Entry By	Alyssa Boynton					
Longitude, Latitude	-114:35:53, 49:37:58				Data Entry Date	04-Jan-2012					
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Tom Carey					
Contract Main. Area	CMA26				Review Date	07-Dec-2011					
Clear Roadway/Skew	13.7 / 58 deg. (RHF)				Dept. Reviewer Name	Tim Davies					
AADT/Year	6,470 / 2010 (A)				Dept. Review Date	10-Jan-2012					
Road Classification	RAU-213-120				Follow-Up By						
Detour Length (km)	3										
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)													
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	EB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No					
Posted:	Lane	WB	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										
Telephone	Under bridge west span.				Gas					
Power					Municipal					
Others	Telegraph under west span				Problem (Y/N)	No				
Remarks		AGT conduit under N curb Fibre optics @ N R/W								

Approach Road										
				Last	Now	Explanation of Condition				
Horizontal Alignment				6	6	Curves to east.				
Vertical Alignment				5	5	Bridge on crest curve.				
Roadway Width (m)		13.700								
Approach Bump				5	5					
Guardrail (Y/N)		Yes		Missing 1 transition bolt at NE and 4 splice bolts.						
Guardrail				4	4	Not thriebeam				
Length (m)		65.000								
Current Standard (Y/N)		No								
Termination Type		TURNED DOWN								
Drainage				4	4	Drains under slope protection @ SE -no trough @ SE and NW wing				
Approach Road General Rating				5	5					

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : LF, 3 Spans, Lengths(m): 21.3-27.4-24.4, A-Ident Number: )					
<b>Special Features</b>					
Special Feature		7	7		
(Type : <b>EXT LATER POST TENS</b> )					
Special Feature			X		
(Type : )					
<b>Wearing Surface/Deck Top Detail Ratings</b>					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>	0	0	0	0	
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface		5	4	Thin chipseal coat on driving lanes. Chip seal wearing off - 30%. Key cracks are mostly sealed.	
(Material Type : <b>CONCRETE - CONVENTIONAL CHIP SEAL COAT</b> )					
(Thickness(mm) : <b>50</b> )					
Lateral Connection Problem (Y/N)		Yes			
Deck Top		N	7		
Deck Rideability		6	6		
Deck Joints		3	3	10 finger welds broken @ E abut & 6 @ W abut jnt. Active leakage seen Plumbing design allows drainage on abut & corrodes brg pins & mas plates Backwall trough full of silt @ east abut.	
Temperature (deg. C)		3			
(Expansion Type : <b>FINGER PLATES</b> )					
(Fixed Type : <b>WATER STOP</b> )					
Gap Size (mm)		Gap Location			
95		West Abut.			
100		East Abut.			
10		E. Pier			
10		W. Pier			
Deck Drainage		3	3	At deck ends. Bridge on grade. troughs @ backwalls silted	
Drains Clogged (Y/N)		Yes			
Curbs/Median		5	5	Flexual cracks every 1 m. Cracks at exterior at abuts. Minor spalls & exposed water stop @ SW joints Spall at NE exterior.	
(Curb Type : <b>Standard;None</b> )					
Scaling (Percent Area)		2			
Bridge Rail		7	7	12 post A/B nuts not fully engaged.	
(Type : <b>STEEL BRIDGE TUBE</b> )					
Bridge Rail Posts		4	4	Minor rust on rails.	
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating		4	4		
(Type : )					
Sidewalk		X	X		
<b>Girder Detail Ratings</b>					
	N (count)	1 (count)	2 (count)	3 (count)	
<b>Last</b>	0	0	0	0	
<b>Now</b>	0	0	0	0	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : LF, 3 Spans, Lengths(m): 21.3-27.4-24.4, A-Ident Number: )				
Girders		5	4	Stirrup exposed at SW corner of exterior girder 30 mm diameter chip. Typical chamfer cracks. All crks are narrow Girder 4 @ west span narrow long cracks @ bottom Sp.1 G9 has vertical crack over P.1. Some corrosion @ girder 2 @ center span
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : 27)				
Diaphragms/Cross Frame		6	6	Efflorescence at southwest.
Bearings		3	3	Some of the east anchor bolts are bent inwards. PINS RUSTING DUE TO JOINT LEAKAGE & masonary plates - worst @ E abut  Sp.3-G7 has neoprene pad slid back only bearing 135mm & overhanging 145mm
Temperature (deg. C)	3			
(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		6	5	Staining between girders - 50% at ctr span. No active leakage seen
Stains (Percent Area)	5			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>3</b>	<b>3</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		6	4	Spall cracks at both abuts.
(Type : CONCRETE)				
Backwalls/Breastwalls		6	6	
Wingwalls		6	6	
Piles		N	N	Buried.
Paint/Coating		3	3	Heaving scaling from joint leakage- worst at A2.
Abutment Stability		7	7	
Scour/Erosion		X	X	
<b>Piers/Bents</b>				
(Type : PIER-COLUMN)				
Bearing Seats/Caps		5	6	
(Type : CONCRETE)				
(Total Number of Bearing Piles : 5:5)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		4	4	Peeling at 5%- @ cap ends. Allowing corrosion. Corrosion stains @ both pier caps Staining on cap between girders and on ends. Also from leaking water stop
(Colour Description : )				
(Colour Code : )				
Pier Stability		7	7	

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Scour		X	X	
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>5</b>	<b>4</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		X	X	Railroad.
Traffic Safety Features		X	X	
Type				
Slope Protection		4	4	West abutment protection settled 60mm. East abut protection ave 120 mm and buckling #5 and 6 row from bottom - 25 mm. Settled around most pier piles.
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		6	6	
Drainage		6	4	Abut drainage is undermining slope protection.
<b>Grade Separation General Rating</b>		<b>4</b>	<b>4</b>	



Next Inspection Date	28-Aug-2013	Previous Inspection Date	17-May-2010
Inspection Cycle (Default) (months)	21		
Comment			