Bridge Inspection

Bridge File Number	79324 -1 Bridge	Form Type	PSR
Year Built/Year Supstr	1982/1982	Lot No.	2
		Inspector Name	Kris Bosters
Bridge or Town Name	HIGHVALE	Inspector Class	BR CLS A
Located Over	LOCAL ROAD	Assistant Name	
Located On	627:02 C1 16.982	Assistant Class	
Water Body Cl./Year		Inspection Date	18-Oct-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 2 TWP 52 RGE 4 W5M	Data Entry Date	23-Oct-2012
Longitude, Latitude	-114:29:15, 53:27:15	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	22-Oct-2012
Contract Main. Area	CMA12	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12.1 / 20 deg. (RHF)	Dept. Review Date	13-Nov-2012
AADT/Year	1,430 / 2011 (A)	Follow-Up By	
Road Classification	RAU-211.8-110		
Detour Length (km)	30		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member	
Design Loading:	MS250						---> Primary Span	

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				Yes							
Posted:	Lane	NB	On Bridge (m)	6.3	In Advance (Y/N)	No	Lane	SB	On Bridge (m)	6.3	In Advance (Y/N)	No
Remarks	Private road.										

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)	Yes
Remarks	Mounted on 1st guardrail post.
Other Sign Types	Information.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	All 4 corners.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	6	Curve to west. Crest curve limiting sight distance. No passing.
Vertical Alignment		7	7	
Roadway Width (m)	10.700			ACP cracked and ravelling at approaches.-photo Approach slabs have wide map cracking.
Approach Bump		6	4	
Guardrail (Y/N)	Yes			
Guardrail		7	7	
Length (m)	32.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		7	7	
Approach Road General Rating		**7**	**6**	

Superstructure						
Bridge Component					**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FM, 1 Spans, Lengths(m): 35.2, A-Ident Number:**)							
Special Features							
Special Feature					7	7	
(Type : **EXT LATER POST TENS**)							
Special Feature						X	
(Type :)							
Wearing Surface/Deck Top Detail Ratings							
	N (%)	1 (%)	2 (%)	3 (%)			
Last							
Now							
Wearing Surface					4	4	Wide cracks between girders EB, seal has failed. - photo.
(Material Type : **CONCRETE**)							
(Thickness(mm) : **50**)							
Lateral Connection Problem (Y/N)	Yes						
Deck Top					X	X	
Deck Rideability					8	8	
Deck Joints					7	7	EB - amoured gland WA, steel plate EA. WB amoured gland EA, steel plate WA. Gaps vary.
Temperature (deg. C)	4						
(Expansion Type : **ARMOURED GLAND (WABO UNDER FINGER OR SLIDING PLATES)**)							
(Fixed Type : **SLIDING PLATES**)							
Gap Size (mm)	Gap Location						
50	East abutment						
50	West abutment						
Deck Drainage					7	7	
Drains Clogged (Y/N)	No						
Curbs/Median					7	7	
(Curb Type : **Standard**)							
Scaling (Percent Area)	0						
Bridge Rail					8	8	
(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					X	X	
Girder Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			Vertical crack end of girder/E side.-photo
Last							
Now	0	0	0	1			
Girders					4	3	5 new girders on North side. Typical chamber cracks, G2 West and East end has wide long crack on underside of one leg - photo. G1 wide cracking West end underside of 1 leg. G1 East end delam/cracking in one leg inside AZ, appears to be from low cover. G3 spalling on underside from lack of cover - photos. 4 box, 5 FL - S.
Cracking (Y/N)	Yes						
Spalling (Percent Area)	1						
(Number Of Girders : **9**)							

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **FM, 1 Spans, Lengths(m): 35.2, A-Ident Number:**)				
Diaphragms/Cross Frame		6	6	Wide horizontal crack E and G1. Narrow vertical cracks in at a few locaions.
Bearings		6	6	
Temperature (deg. C)	2			
(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		8	8	
Stains (Percent Area)	0			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**4**	**3**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		6	6	Abutment seats chipped down for new grout pad for replacement girders from accident damage.
(Type : **CONCRETE**)				
Backwalls/Breastwalls		8	8	
Wingwalls		8	8	
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type :)				
Bearing Seats/Caps		X	X	
(Type :)				
(Total Number of Bearing Piles :)				
Pier Shaft/Piles		X	X	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		X	X	
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**6**	**6**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		5	5	Accident damage, NW corner panels torn off - photo.
Traffic Safety Features		3	4	Fill exposed/sloughing. Lighting good. Accident damage, NW corner panels torn off.-photo
Type	Retaining			
Slope Protection		4	4	Erosion gullies upto 300mm deep.
(Type : **NONE; NONE**)				
Bank Stability		3	4	Vertical face.
Drainage		7	7	
Grade Separation General Rating		**3**	**4**	

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	2013	Seal longitudinal cracks between girders.				
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Repair binwalls.				
OTHER ACTION	2013	Patch & seal cracks in approach ACP.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/50.0**	**Sufficiency Rating (Last/Now) (%)**	**45.9/44.4**	Est. Repl. Yr	2030	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor girder cracks.	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			
Next Inspection Date	18-Jan-2016	Previous Inspection Date	05-May-2009		
Inspection Cycle (Default) (months)	39				
Comment					