Bridge Inspection

Bridge File Number	85021 W3-6 Bridge	Form Type	PSR
Year Built/Year Supstr	2006/2006	Lot No.	3
		Inspector Name	Kris Bosters
Bridge or Town Name	ANTHONY HENDAY WESTBOUND OVER CONNECTOR TRELLIS STRUCTURE	Inspector Class	BR CLS A
Located Over	RAMP 2423-2 B	Assistant Name	
Located On	216:06 R1 0.379	Assistant Class	
Water Body Cl./Year		Inspection Date	20-Feb-2013
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	NE SEC 29 TWP 51 RGE 24 W4M	Data Entry Date	12-Mar-2013
Longitude, Latitude	-113:29:46, 53:26:13	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	10-Mar-2013
Contract Main. Area	ANTHONY HENDAY DRIVE	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	12.9 /	Dept. Review Date	13-Mar-2013
AADT/Year	51,020 / 2011 (A)	Follow-Up By	
Road Classification	RFD-412.4-110		
Detour Length (km)	1		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:		CL800					---> Primary Span

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				No							
Posted:	Lane	WB	On Bridge (m)		In Advance (Y/N)	Yes	Lane	EB	On Bridge (m)		In Advance (Y/N)
Remarks	5.4 sign on structure #1.										

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	WB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	EB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	Yes
Remarks	Installed on end of crash barrier.
Other Sign Types	

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power	Street lighting.	Municipal	
Others		Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		9	9	
Vertical Alignment		8	8	
Roadway Width (m)	12.900			Wide crack in ACP at approaches.-photo
Approach Bump		7	5	
Guardrail (Y/N)	Yes			
Guardrail		8	8	
Length (m)	69.000			
Current Standard (Y/N)	Yes			
Termination Type	Crash terminal			
Drainage		4	4	Fill settling @ SW & eroding behind backwall.-photo Fill settled at NW and drainage is flowing under approach slab.-photo
Approach Road General Rating		**8**	**8**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **TSS, 1 Spans, Lengths(m): 39, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%) / 1 (%) / 2 (%) / 3 (%)			Snow along gutters.
Last				
Now	5.0			
Wearing Surface		8	4	Random longitudinal and transverse cracks in ACP - sealed. ACP ravelling & 1m x 0.2m pothole formed at W joint paving lip.-photo
(Material Type : **ACP**)				
(Thickness(mm) : **90**)				
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		8	4	Pothole at W deck joint.
Deck Joints		4	4	Cover plate bolt head sheared off at North side - photo. Leakage is causing scaling & spalling on deck underside at SW.-photo
Temperature (deg. C)	-5			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type :)				
Gap Size (mm)	Gap Location			
89	West abutment			
Deck Drainage		4	4	Drain tubes dont extend below underside.-photo Seepage from curb, control joints and deck joints are causing delaminations.-photo
Drains Clogged (Y/N)	No			
Curbs/Median		7	7	Narrow vertical shrinkage cracks, typical.
(Curb Type : **SINGLE SLOPE CONCRETE BARRIER**)				
Scaling (Percent Area)	0			
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)			BF 85021W & BF 85021E-1 are attached Western 10 girders are being rated as part of BF 52021W.
Last				
Now				
Girders		4	4	Shrinkage cracks at ends of trellis beams. Narrow horizontal cracks. Girder 1 & G2. Most girders have rust spots originating from formwork.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **10**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **TSS, 1 Spans, Lengths(m): 39, A-Ident Number:**)				
Diaphragms/Cross Frame		X	X	
Bearings		8	8	Only a couple can be viewed.
Temperature (deg. C)	-4			
(Expansion Type : **REINFORCED PAD BEARING**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		6	6	Staining around drain tubes.
Stains (Percent Area)	0			
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		8	8	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		8	8	
Wingwalls		8	8	
Piles		N	N	
Paint/Coating		8	5	
Abutment Stability		8	8	
Scour/Erosion		8	8	
Piers/Bents				
(Type :)				Supports for trellis beams. Narrow horizontal and vertical cracking.
Bearing Seats/Caps		8	8	
(Type :)				
(Total Number of Bearing Piles :)				
Pier Shaft/Piles		N	N	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		8	5	Cream.
(Colour Description :)				
(Colour Code :)				
Pier Stability		8	8	
Scour		8	8	
Debris (Y/N)	No			
Substructure General Rating		**8**	**8**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Grade Separation				
Road Alignment		8	8	On curve.
Traffic Safety Features		8	8	Guardrail & concrete retaining wall on East side.
Type	Lighting			
Slope Protection		8	6	Bark mulch. Concrete retaining wall on East side. Narrow vertical cracks.
(Type : **CONCRETE; CONCRETE**)				
Bank Stability		4	4	Fill settling at SW & NW.- photo.
Drainage		8	8	
Grade Separation General Rating		**4**	**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	2013	Seal cracks at approaches, patch pothole at W paving lip.				
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS	2013	NW cover plate bolt.				
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Place fill @ SW & NW corners.				
OTHER ACTION	2013	Extend drain tubes.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**66.7/66.7**	**Sufficiency Rating (Last/Now) (%)**	**51.7/50.4**	Est. Repl. Yr	2080	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Some maintenance items are common to BF E1-1 as they share a common substructure.	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	Wade Nanninga		
Next Inspection Date	20-Nov-2014	Previous Inspection Date	25-Apr-2011		
Inspection Cycle (Default) (months)	21				
Comment					