Bridge Inspection

Bridge File Number	77859 W-1 Bridge	Form Type	PSR
Year Built/Year Supstr	1975/1975	Lot No.	2
		Inspector Name	Shane Hall
Bridge or Town Name	EDSON	Inspector Class	BR CLS A
Located Over	CARROT CREEK, 8.11.107.20, WATERCRS-ST	Assistant Name	
		Assistant Class	
Located On	16:08 L1 5.654	Inspection Date	12-Aug-2012
Water Body Cl./Year		Data Entry By	Theresa Lacusta
Navigabil. Cl./Year		Data Entry Date	10-Sep-2012
Legal Land Location	NW SEC 29 TWP 53 RGE 13 W5M	Reviewer Name	Eric Carcoux
Longitude, Latitude	-115:53:01, 53:36:24	Review Date	30-Aug-2012
Road Authority	Alberta Transportation (AIT)	Dept. Reviewer Name	Brent Herrick
Contract Main. Area	CMA12	Dept. Review Date	18-Sep-2012
Clear Roadway/Skew	12.2 /	Follow-Up By	
AADT/Year	6,840 / 2011 (A)		
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

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 Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	EB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
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	At East end only.
Other Sign Types	Carrot Creek

Utilities (Located at)

Utility Attachments			
Telephone		Gas	
Power		Municipal	
Others	Survey marker @ NE corner.	Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve to the east.
Vertical Alignment		8	8	
Roadway Width (m)	11.500			
Approach Bump		7	6	
Guardrail (Y/N)	Yes			East approach corners with modified connections only. No guardrail at West end. East approach not thrie beam transition.
Guardrail		6	6	
Length (m)	80.000			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		6	6	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **RD, 3 Spans, Lengths(m): 12.2-15.2-12.2, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last	0	0	0	0
Now				
Wearing Surface		4	6	
(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		7	7	Buffer angle at abutments.
Temperature (deg. C)	19			
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)				
(Fixed Type : **WATER STOP**)				
Gap Size (mm)	Gap Location			
70	W. pier			
65	E. pier			
Deck Drainage		4	4	Staining around deck drains on curb girder SP2G1&G11.-photo
Drains Clogged (Y/N)	Yes			
Curbs/Median		6	6	Minor plow scrapes. 4 lift hook pockets not properly grouted.
(Curb Type : **Standard**)				
Scaling (Percent Area)	0			
Bridge Rail		7	7	Nut not fully engaged on A/B @ 2nd post from NW. (transition section (photo)).
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		4	4	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		6	6	
(Type : **GALVANIZED**)				
Sidewalk		X	X	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last				
Now				3
Girders		5	3	There is staining around the deck drain (curb girders) on the center span. SP1G1, SP2G10,G11 have narrow cracks with rust staining on girder underside.-photo Appears to be from low cover. Vertical crack with no staining @ East end of SP3G1, & G11.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
(Number Of Girders : **33**)				

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **RD, 3 Spans, Lengths(m): 12.2-15.2-12.2, A-Ident Number:**)				
Diaphragms/Cross Frame		X	X	
Bearings		7	7	West abutment fixed.
Temperature (deg. C)	19			
(Expansion Type : **REINFORCED PAD BEARING**)				
(Fixed Type : **REINFORCED PAD BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		5	5	
Stains (Percent Area)	1			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**5**	**3**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		6	4	Light scaling along East abutment. Spot rust staining at East abutment. 0.3mx0.2m spall with exposed rebar @ South side of A1 and Norht side of A2.-photo Narrow vertical crack @ S. end of A2.
(Type : **CONCRETE**)				
Backwalls/Breastwalls		7	7	
Wingwalls		4	4	5% spalling on SW wingwall (photo).
Piles		N	N	
Paint/Coating		5	5	5% coating peeling of abutments.
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				
Bearing Seats/Caps		7	7	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **7:7**)				Concrete filled pipe piles. Piles 5, 6 & 7 in pier 1 and piles 2 & 3 in pier 2 have minor buckling of pipe on streamside. Suspect from straightening piles during const. Few rust posts lower portions.
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		6	6	Grey.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		5	5	
Debris (Y/N)	No			
Substructure General Rating		**5**	**4**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **S**)				
(D/S Direction : **N**)				
Alignment		7	7	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		7	7	
(Type : **RIP RAP; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		8	8	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**7**	**7**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2013	Tighten nut on A/B @ 2nd post from NW.				
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
SEAL DECK						
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	Extend deck drain pipes.				
OTHER ACTION	2013	Repair spalls on wingwalls & abutments.				
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/38.9**	**Sufficiency Rating (Last/Now) (%)**	**61.9/54.2**	Est. Repl. Yr	2035	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor girder cracking.	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	Eric Carcoux	Previous Assistant's Name			
Next Inspection Date	12-May-2014	Previous Inspection Date	14-Sep-2010		
Inspection Cycle (Default) (months)	21				
Comment					