Bridge Inspection

Bridge File Number	74397 -1 Bridge	Form Type	PCS
Year Built/Year Supstr	1979/1979	Lot No.	2
		Inspector Name	Kris Bosters
Bridge or Town Name	RADWAY	Inspector Class	BR CLS A
Located Over	NAMEPI CREEK, 6.57, WATERCRS-ST	Assistant Name	Brian Cote
Located On	28:06 C1 5.242	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Apr-2012
Navigabil. Cl./Year		Data Entry By	Lisa Fairhurst
Legal Land Location	NE SEC 31 TWP 58 RGE 20 W4M	Data Entry Date	25-Apr-2012
Longitude, Latitude	-112:57:33, 54:03:41	Reviewer Name	Eric Carcoux
Road Authority	Alberta Transportation (AIT)	Review Date	25-Apr-2012
Contract Main. Area	CMA07	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	13.8 /	Dept. Review Date	04-May-2012
AADT/Year	2,710 / 2011 (A)	Follow-Up By	
Road Classification	RAU-213.4-120		
Detour Length (km)	3		

Allowable Load (t):	Single	CS1 28	Semi	CS2 49	Train	CS3 62	---> On Critical Spans --->Critical Member
Design Loading:		MS23					---> 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)	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	Hazard markers not required.
Other Sign Types	File tags on both abutment caps.

Utilities (Located at)

Utility Attachments			
Telephone		Gas	Approx 100 North.
Power	3 lines to North r/w.	Municipal	
Others	Fibre optic S r/w.	Problem (Y/N)	No
Remarks			

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Curve to East & West. Passing both directions
Vertical Alignment		8	8	
Roadway Width (m)	13.300			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			SW corner has 12.2 m Type VI to accommodate approach. Minor bends / dents, still functional. SE turn down has incorrect lap joint. Insufficient length & post next to bridge.
Guardrail		7	7	
Length (m)	12.200			
Current Standard (Y/N)	No			
Termination Type	Turned Down			
Drainage		7	7	
Approach Road General Rating		**7**	**7**	

Superstructure

Bridge Component		Last	Now	Explanation of Condition
(Primary Span : **SM, 3 Spans, Lengths(m): 6-10-6, A-Ident Number:**)				
Special Features				
Special Feature			X	
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%) / 1 (%) / 2 (%) / 3 (%)			
Last				
Now	0.0 / 0.0 / 0.0 / 0.0			
Wearing Surface		4	4	Chip coat on 50mm asphalt. 7 lines of cracks between per span indicating connectors not working. Few potholes developing WBL - photo 1. Loss of ACP NW shoulder.
(Material Type : **ACP - CONVENTIONAL CHIP SEAL COAT**)				
(Thickness(mm) : **50**)				
Lateral Connection Problem (Y/N)	Yes			
Deck Top		N	N	
Deck Rideability		6	6	
Deck Joints		N	N	Paved over.
Bump (Y/N)	Yes			
Deck Drainage		5	5	No drain holes. Deck on grade towards West -
Drains Clogged (Y/N)				
Curbs/Median		6	4	4 lift pockets on North side not grouted. Vertical crack @ 300 intervals. Spall on NW curb. <1%.
(Curb Type : **Standard**)				
Scaling (Percent Area)	1			
Bridge Rail		6	6	Minor deflection North rail.
(Type : **GALVANIZED STEEL BRIDGE TUBE**)				
Bridge Rail Posts		7	7	
(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	0 / 0 / 0 / 0			
Girders		5	5	Typical diagonal cracks on girder undersides of all curbs. Less than 0.5m. Staining on underside of deck at connector pockets. Chips from erection on NE fascia. Longitudinal narrow crack medium height curb fascia on all curbs. Hairline to narrow width longitudinal cracks @ c/l of all girders, all spans. Photo .
Last Complete Inspection Date	10-Apr-2012			
Cracking (Y/N)	Yes			
Spalling (Percent Area)	0			
Lift or Connector Pocket Grouted (Y/N)	No			
(Number Of Girders : **36**)				
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**5**	**5**	

Substructure

Bridge Component	Last	Now	Explanation of Condition
Abutments			
(Extended Backwall Piles (Y/N) : **Y**)			
(Extended Backwall Piles Spacing(mm) : **1250**)			
(Total Number of Caps/Corbels : **3:3**)			Horizontal check East cap (7mm wide). West cap splinters, showing discolouration under side on West abutment. Backwall scabs installed too low, up to 500mm on east cap.
Bearing Seats/Caps/Corbels Detail Ratings			
	N (count) / 1 (count) / 2 (count) / 3 (count)		
Last			
Now	0 / 0 / 0 / 0		
Bearing Seats/Caps/Corbels	5	5	
(Type : **TREATED TIMBER**)			
(Depth(mm) : **350**)			
(Width(mm) : **300**)			
Backwalls/Breastwalls	5	4	Minor loss of fill at E abutment due to insufficient backwall depth. 1m long x 0.4m wide x 0.2m deep erosion channel forming
Greatest Height (m) 2.00			
Wingwalls	4	4	Small hole tin top @ SE & damaged SW. SW wing pile splintered.
(Total Number of Bearing Piles : **13:13**)			
Piles Detail Ratings			
	N (count) / 1 (count) / 2 (count) / 3 (count)		
Last			
Now	0 / 0 / 0 / 0		
Piles	5	5	
Paint/Coating	X	X	
Abutment Stability	5	5	
Scour/Erosion	5	5	
Piers/Bents			
(Type : **PIER-COLUMN**)			Galvanizing on caps & capitals.
(Total Number of Caps/Corbels : **1:1**)			
Bearing Seats/Caps/Corbels Detail Ratings			
	N (count) / 1 (count) / 2 (count) / 3 (count)		
Last			
Now	0 / 0 / 0 / 0		
Bearing Seats/Caps/Corbels	8	8	
(Type : **STEEL**)			
(Depth(mm) : **300**)			
(Width(mm) : **665**)			
(Total Number of Bearing Piles : **14:13**)			West bent has 14 piles. U/S piles suffering abrasion. East bent has 13 piles. South pile on East pier not centered under cap. Stubs of old piles remain.
Piles Detail Ratings			
	N (count) / 1 (count) / 2 (count) / 3 (count)		
Last			
Now	0 / 0 / 0 / 0		
Pier Shaft/Piles	5	5	
Greatest Height (m) 3.70			
Bracing/Struts/Sheathing	7	7	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Nose Plate		5	5	Nose plate on east pier 150mm above ground level.
Paint/Coating		6	6	
(Colour Description :)				
(Colour Code :)				
Pier Stability		5	5	
Scour		5	5	
Debris (Y/N)	Yes			
Substructure General Rating		**5**	**5**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **N**)				
(D/S Direction : **S**)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		6	4	1m x 0.4m x 0.2m erosion channel forming on E headslope
(Type : **RIP RAP; RIP RAP**)				
Guidebank/Spurs		X	X	
Adequacy of Opening		6	6	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**6**	**4**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
SEAL CURBS						
PATCH DECK	2012	Patch potholes.				
OVERLAY DECK						
STRAIGHTEN/REPLACE MEMBERS						
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
INSTALL STRUTS						
OTHER ACTION	2012	Fill lift pockets with grout.				
OTHER ACTION	2012	Replace damaged tin tops.				
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**61.2/58.4**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection	Monitor E headslope erosion	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	10-Jan-2014	Previous Inspection Date	22-Jun-2010		
Inspection Cycle (Default) (months)	21				
Comment					