Bridge Inspection

Bridge File Number	73635 -1 Bridge	Form Type	PCS
Year Built/Year Supstr	1973/1973	Lot No.	2
		Inspector Name	Jason Rusu
Bridge or Town Name	ELKWATER	Inspector Class	BR CLS A
Located Over	LODGE CREEK, 26, WATERCRS-ST	Assistant Name	
Located On	41:03 C1 8.521	Assistant Class	
Water Body Cl./Year		Inspection Date	15-Jan-2012
Navigabil. Cl./Year		Data Entry By	Anne Roberts
Legal Land Location	NE SEC 30 TWP 5 RGE 2 W4M	Data Entry Date	29-Feb-2012
Longitude, Latitude	-110:15:39, 49:24:57	Reviewer Name	Garry Roberts
Road Authority	Alberta Transportation (AIT)	Review Date	23-Jan-2012
Contract Main. Area	CMA23	Dept. Reviewer Name	Tim Davies
Clear Roadway/Skew	9.5 /	Dept. Review Date	11-Mar-2012
AADT/Year	280 / 2010 (A)	Follow-Up By	
Road Classification	RAU-209-110		
Detour Length (km)	32		

Allowable Load (t):	Single	CS1 30 GIRDER	Semi	CS2 49 GIRDER	Train	CS3 70 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Posted:	Lane	SB	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	
Other Sign Types	None

Utilities (Located at)

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

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		7	7	Gradual sag curve with good sight distance.
Vertical Alignment		7	7	
Roadway Width (m)	9.500			South approach settlement up to 25 mm x 2 m
Approach Bump		5	4	
Guardrail (Y/N)	Yes			NE & SW posts broken
Guardrail		4	4	
Length (m)	12.000			Not thriebeam
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 : **HC, 3 Spans, Lengths(m): 8.5-10.1-8.5, A-Ident Number:**)				
Special Features				
Special Feature			X	1
(Type :)				
Special Feature			X	
(Type :)				
Wearing Surface/Deck Top Detail Ratings				
	N (%)	1 (%)	2 (%)	3 (%)
Last	0	0	0	0
Now	0.0	0.0	0.0	2.0
Wearing Surface		5	3	HAIRLINE MAP CRACKS & SOME POPOUTS.
(Material Type : **CONCRETE**)				Thickness varies from 80 mm to 165 mm
(Thickness(mm) : **120**)				Spalls at A2 & P2 with exposed rebar at A2. South approach settlement 25 mm x 2 m (SBL)
Lateral Connection Problem (Y/N)	No			
Deck Top		N	N	
Deck Rideability		7	7	
Deck Joints		6	6	FIBRE BOARD
Bump (Y/N)	No			
Deck Drainage		5	5	
Drains Clogged (Y/N)	No			
Curbs/Median		4	4	Only 135 mm of curb height left at NW pier. Spall SE corner & outsides (minor). Visible stirrup by pier SE NE curb scaling rebar exposed. Plow damage both sides.
(Curb Type : **Standard**)				
Scaling (Percent Area)	5			
Bridge Rail		6	6	Single layer. 3rd post from the SW is missing a nut and washer
(Type : **GALVANIZED STEEL FLEX BEAM**)				
Bridge Rail Posts		4	3	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)				
Bridge Rail/Posts Coating		7	7	
(Type : **GALVANIZED**)				
Sidewalk		N	N	
Girder Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	0
Now	0	0	0	0
Girders		4	4	18 OF 33 HAVE NARROW SHEAR CRACKS. ONE SMALL PUNCHOUT @ GIRDER #4,5,7 @ N SPAN & #4,5,7 @ S span. Drift pin spalls. Wide crack in AZ, one leg only curb unit span 3 G 1 Spall in AZ, one leg in S1 G11 Medium shear crack at S3 G7 at P2
Last Complete Inspection Date	15-Jan-2012			
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
Lift or Connector Pocket Grouted (Y/N)	Yes			
(Number Of Girders : **33**)				
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				
(Extended Backwall Piles (Y/N) : **N**)				
(Extended Backwall Piles Spacing(mm) :)				
(Total Number of Caps/Corbels : **1:1**)				
Bearing Seats/Caps/Corbels Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	0
Now	0	0	0	0
Bearing Seats/Caps/Corbels		7	7	
(Type : **CONCRETE**)				
(Depth(mm) :)				
(Width(mm) :)				
Backwalls/Breastwalls		X	X	
Greatest Height (m)	1.00			
Wingwalls		7	7	
(Total Number of Bearing Piles : **0:0**)				Unable to confirm pile count due to high fill
Piles Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	12	0	0	0
Now	12	0	0	0
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : **PIER-COLUMN**)				
(Total Number of Caps/Corbels : **1:1**)				
Bearing Seats/Caps/Corbels Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	0
Now	0	0	0	0
Bearing Seats/Caps/Corbels		7	7	
(Type : **CONCRETE**)				
(Depth(mm) : **600**)				
(Width(mm) : **500**)				
(Total Number of Bearing Piles : **6:6**)				Can't confirm due to ice
Piles Detail Ratings				
	N (count)	1 (count)	2 (count)	3 (count)
Last	0	0	0	0
Now	0	0	0	0
Pier Shaft/Piles		7	7	
Greatest Height (m)	3.50			
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		4	5	
(Colour Description : **YELLOW**)				
(Colour Code : **13538**)				

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Pier Stability		7	7	
Scour		5	5	
Debris (Y/N)	No			
Substructure General Rating		**6**	**7**	

Structure Usage				
		Last	**Now**	**Explanation of Condition**
Channel				
(U/S Direction : **E**)				U/S channel 45 degree bend
(D/S Direction : **W**)				
Alignment		5	5	
Bank Stability		5	5	
HWM (m below Top of Curb)	2.5			Grass/ drift on fence U/S
Drift (Y/N)	No			
Slope Protection		6	6	
(Type :)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : **NONE**)				
(Fish Compensation Measure 2 : **NONE**)				
Channel General Rating		**5**	**5**	

Maintenance Recommendations

Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL	2012	Replace missing nut and washer. Replace 1 post NE 1 section flexbeam SE. Replace SW post.				
SEAL CURBS						
PATCH DECK	2012	Patch spalls at abuts. and pier 2 1 m x 0.025 m depth, repair approach road settlement at South in SBL				
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						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/61.1**	**Sufficiency Rating (Last/Now) (%)**	**65.1/67.0**	Est. Repl. Yr	2025	Maint. Reqd. (Y/N)	Yes

Special Comments for Next Inspection		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	Jason Rusu	Previous Assistant's Name	
Next Inspection Date	15-Oct-2013	Previous Inspection Date	06-Aug-2010
Inspection Cycle (Default) (months)	21		
Comment			