

Bridge Inspection							
Bridge File Number	70512 -1 Bridge			Form Type	TH TT		
Year Built/Year Supstr	1906/1906			Lot No.	1		
Bridge or Town Name	ROSEDALE			Inspector Name	Jason Saly		
Located Over	ROSEBUD RIVER, 3.33, WATERCRS-ST			Inspector Class	BR CLS A		
Located On	10X:02 C1 2.453			Assistant Name			
Water Body Cl./Year				Assistant Class			
Navigabil. Cl./Year				Inspection Date	07-Mar-2013		
Legal Land Location	SW SEC 19 TWP 28 RGE 19 W4M			Data Entry By	Marcia Chavez		
Longitude, Latitude	-112:39:56, 51:24:14			Data Entry Date	27-Mar-2013		
Road Authority	Alberta Transportation (AIT)			Reviewer Name	John O'Brien		
Contract Main. Area	CMA21			Review Date	21-Mar-2013		
Clear Roadway/Skew	5.1 /			Dept. Reviewer Name	Chris Black		
AADT/Year	580 / 2011 (A)			Dept. Review Date	28-Mar-2013		
Road Classification	RLU-208-100			Follow-Up By			
Detour Length (km)	15						
Allowable Load (t):	Single	CS1 28	Semi	CS2 41 STRINGER	Train	CS3 58 STRINGER	---> On Critical Spans --->Critical Member
Design Loading:	HS20						---> Primary Span

Posting Information												
Required Vert. Clearance Posting (m)												
Posted Vertical Clearance (Y/N) Yes												
Posted:	Lane	NB	On Bridge (m)	5.1	In Advance (Y/N)	No	Lane	SB	On Bridge (m)	5.1	In Advance (Y/N)	No
Remarks (Bridge #4) Advance not required. 5.296 at N; 5.298 at S.												
Required Load Posting (t)			Single		Semi	41	Truck Train	59				
Posted Loading (t)			Single	24.0	Semi	34.0	Truck Train	40.0				
Posted:	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	Yes				
Posted:	Lane	SB	At Junction (Y/N)	Yes	In Advance (Y/N)	No	At Bridge (Y/N)	Yes				
Remarks Rating dictated by BF 70514.												
Hazard Marker At Bridge (Y/N)			Yes									
Remarks			Hazard markers low all corners.									
Other Sign Types			Stop if oncoming bridge. 45 km/hr, curves. A0092-04 plaque missing.									

Utilities (Located at)			
Utility Attachments	TELEPHONE UTILITIES-PHONE LINE		
Telephone		Gas	14m North of c/l.
Power	3 wire OH 9.0m North r/w. Power line crosses road 80m East of bridge.		Municipal Problem (Y/N) No
Others			
Remarks			

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curves both ends of bridge, speed limit suggested for 45 km/hr.
Vertical Alignment		7	7	
Roadway Width (m)		9.000		Minor bends and dents. Flush splice to bridge at NW & SE. SW, SE & NW - 15.6m; NE - 22.8m. Not thriebeam.
Approach Bump		5	5	
Guardrail (Y/N)		Yes		
Guardrail Length (m)		5	5	
Current Standard (Y/N)		No		SW, SE & NW - 15.6m; NE - 22.8m. Not thriebeam.
Termination Type		Turn Down		
Drainage		7	N	Snow covered.
Approach Road General Rating		5	5	

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : TH, 2 Spans, Lengths(m): 41.1-8.5, A-Ident Number: A0092-04)					
Special Features					
Special Feature			X		
(Type :)					
Special Feature			X		
(Type :)					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	Snow covered.
Last	0	0	0	0	
Now	30.0	0.0	0.0	0.0	
Wearing Surface/Deck Top				8	7
(Material Type : EKKI WOOD)					
(Plank Thickness(mm) : 60)					
(Plank Width(mm) : 200)					
Deck Rideability				8	8
Deck Joints					
Temperature (deg. C)		-10		X	X
(Expansion Type :)					
(Fixed Type :)					
Gap Size (mm)		Gap Location			
Curbs/Wheel Guards				8	8
(Curb Type : Standard)					
(Type : EKKI WOOD)					
(Thickness(mm) : 150)					
(Width(mm) : 250)					
Bridge Rail				6	6
(Type : GALVANIZED STEEL FLEX BEAM)					
Bridge Rail Posts/Blocking				6	6
(Type : GALVANIZED POST STEEL;GALVANIZED POST STEEL)					
Bridge Rail/Posts Coating				6	6
(Type : GALVANIZED)					
Sidewalk				X	X

Superstructure							
Bridge Component		Last	Now	Explanation of Condition			
(Primary Span : TH, 2 Spans, Lengths(m): 41.1-8.5, A-Ident Number: A0092-04)							
Wide Load Damage (Y/N)	No			Minor defects. W portal small notch w/dents. (L4EL5W ck'd at L5W. 07Jun2011) - Couldn't confirm. L7EL8W corroded through at L8W - minor (photo). 07Jun2011) - Couldn't confirm. M1U4W has minor bend. (L1EL2W cracked at L1E at last horiz. rivet which extends 10mm up vert. leg (photo). 24May2012). L3U4W bent 40mm btwn m1 & U4, minor. Flanges of floor beams heavily corroded. Pack rust at lower gussets w/section loss & perforations. Repair at L6E gusset. Heavy pack rust btwn bottom chord gussets & members along bottom chord. Corrosion btwn angles. Bent in L1L2E. L3L4W, L4L5W corrosion bulging. 2 - 50x230; 4, 140x265; 4, 110x230; 5, 135x380. 8 bays x 15 stringers. (For details see 2011 UT rpt. 07Jun2011). Paint largely peeled w/some corrosion.			
High Load Damage (Y/N)	Yes						
Top Chord		7	7				
Batter Posts		7	7				
Sway Bracings		4	4				
Diagonals		5	5				
Verticals		7	7				
Portals		7	7				
Connections		4	4				
Floor Beams		4	4				
Bottom Chord		4	4				
(No. of Stringers : 120)							
Stringer Detail Ratings							
	N (count)	1 (count)	2 (count)	3 (count)			
Last							
Now							
Stringers			5	5			
(Type : STEEL)							
(Width(mm) : 135)							
(Depth(mm) : 380)							
(Spacing(mm) : 700)							
Paint Condition		3	3	Heavy corrosion on top & bottom flange of floor beams at bearings. Heavy pack rust btwn bottom chord gussets & members.			
(Colour Description :)							
(Colour Code :)							
Touchup Required (Y/N)	No						
Bearings		5	N	(50% pitting corrosion @ bearings. 24May2012) - Snow covered. P1 A1			
Temperature (deg. C)	-10						
(Expansion Type : ROLLER NEST BEARING)							
(Fixed Type : PINNED BEARING)							
Functioning (Y/N)	Yes						
Sub Deck/Deck Underside		8	7				
(Material Type : TREATED TIMBER)							
(Plank Thickness(mm) : 75)							
(Plank Width(mm) : 305)							
Defects (Percent Area)	0						
Span Alignment Problems							
Vertical (Y/N)	No						
Horizontal (Y/N)	No						
Superstructure General Rating		4	4				
Superstructure							
Bridge Component		Last	Now	Explanation of Condition			
(Secondary Span : TT)							
Special Features							
Special Feature			X				
(Type :)							
Special Feature			X				
(Type :)							

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Secondary Span : TT)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last	0	0	0	0	Snow covered.	
Now	30.0	0.0	0.0	0.0		
Wearing Surface/Deck Top				8	7	
(Material Type : EKKI WOOD)						
(Plank Thickness(mm) : 60)						
(Plank Width(mm) : 180)						
Deck Rideability				8	8	
Wheel Guards				6	7	Notched around posts.
(Curb Type : Standard)						
(Type : EKKI WOOD)						
(Thickness(mm) : 150)						
(Width(mm) : 250)						
Bridge Rail				7	7	Double layer.
(Type : GALVANIZED STEEL FLEX BEAM)						
Bridge Rail Posts				7	7	
(Type : TREATED TIMBER;TREATED TIMBER)						
Bridge Rail/Posts Coating				6	6	Posts are treated with creosote.
(Type : GALVANIZED)						
(No. of Stringers : 10)				2 - 200mm x 400mm stringers added (S4,S7). 8 - 200 x 510.		
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	1		
Stringers				5	3	Main stringers are notched at pier. S5 from W cracked.
(Type : TREATED TIMBER)						
(Width(mm) : 200)						
(Depth(mm) : 510)						
(Spacing(mm) : 650)						
Sub Deck/Deck Underside				8	7	
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 100)						
(Plank Width(mm) : 300)						
Defects (Percent Area)		0				
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						
(Extended Backwall Piles (Y/N) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						

Substructure					
Bridge Component		Last	Now	Explanation of Condition	
(Total Number of Caps/Corbels : 16:1)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	4	0	0	4	
Now	4	0	0	4	
Bearing Seats/Caps/Corbels			3	3	Caps & corbels cored 24May2012. Rot or beginning rot in all caps & corbels at A1, and beginning rot in A2 cap. Estimated 4 caps buried at A1.
(Type : TREATED TIMBER)					
(Depth(mm) : 300)					
(Width(mm) : 300)					
Backwalls/Breastwalls			5	5	
Greatest Height (m)		2.40			
Wingwalls			4	4	(SW wing pile is broken, sheathing is pushing in. 24May2011). SE wing pile broken, sheathing missing.
(Total Number of Bearing Piles : 12:5)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	6	0	0	3	
Now	6	0	0	3	
Piles			3	3	Piles cored 24May2012. Rot in 3 S end TT block piles at A1, and beginning rot in others. A2 has beginning rot in 3 centre piles. Rating based on coring findings.
Paint/Coating			X	X	
Abutment Stability			5	5	
Scour/Erosion			7	7	
Piers/Bents					
(Type : PIER-COLUMN)					
(Total Number of Caps/Corbels : 19)					
Bearing Seats/Caps/Corbels Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	7	
Now	0	0	0	7	
Bearing Seats/Caps/Corbels			3	3	Not bearing on E P1,5,6. Caps & corbels cored 24May2012. Rot in inside corbel at W end & all corbels at E end. Bulging in N bottom cap & in short cap under E corbels. Cut ends of caps/corbels appear to be untreated.
(Type : TREATED TIMBER)					
(Total Number of Bearing Piles : 20)					
Piles Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	8	0	0	2	
Now	8	0	0	2	
Pier Shaft/Piles			3	3	2 HP under E bearing. Pier shaft strengthened with concrete.
Greatest Height (m)		3.50			
Cap not bearing at 2 piles/blocks at approach span end. Piles cored 24May2012. (Streamside piles not visible from inside pier box - cored through sheathing. 24May2012). Rot in P1 but has H-pile beside. Rot in P7 & 8 at N end under corbels. Beginning rot in other piles.					
Bracing/Struts/Sheathing			4	4	Various missing planks but not causing problems.
Nose Plate			X	X	
Paint/Coating			X	X	
(Colour Description :)					
(Colour Code :)					

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Pier Stability		4	4	Rot in streamside piles, caps & corbels.
Scour		5	5	
Debris (Y/N)	Yes			Small to medium drift caught on fence attached to pier.
Substructure General Rating		3	3	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				(Subdeck to water 4.9m. 2003/08/17) (S.B. to subdeck 5.4m).
(D/S Direction : N)				
Alignment		6	6	
Bank Stability		6	6	Minor slump u/s.
HWM (m below Top of Curb)				HWM not visible.
Drift (Y/N)	No			
Slope Protection		5	5	
(Type : NATURAL; NATURAL)				
Guidebank/Spurs		5	5	Spur at pier. 6 planks rotted & 1 pile rotted @ spur. Encased in concrete, ok.
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		5	5	

Proposed Long-Term Strategy	2006.12.29 Bridge is getting near end of useful life. With normal maintenance should be good until 2025.		
On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Garry Roberts	Previous Assistant's Name	
Next Inspection Date	07-Dec-2014	Previous Inspection Date	24-May-2012
Inspection Cycle (Default) (months)	21		
Comment			

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
RETROFIT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
REPLACE STRIP DECK						
REPLACE SUB DECK						
RESET/ PAINT BEARINGS	2015	If not yet done.	Defer until rehab/replacement	2014		
REPAINT SUPERSTRUCTURE	2015	Treat rust jack issues while painting.	Defer until rehab/replacement	2014		
STRAIGHTEN/REPLACE MEMBERS	2013	L1EL2W, L4EL5W, L7EL8W cracked or corroded through - replace, if not already done.	Programmed if replacement not feasible in 2014	2013		
WASHING						
SHOTCRETE REPAIRS						
CORE TIMBER CAPS/CORBELS						
REPAIR/REPLACE TIMBER CAPS	2013	Replace all caps & corbels.	Programmed if replacement not feasible in 2014	2013		
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION	2013	Remove select streamside pier sheathing to assess pile and concrete condition, if not yet done.	Programmed if replacement not feasible in 2014	2013		
OTHER ACTION	2013	Install A92-4 truss ID plaque.	Defer until rehab/replacement	2014		
OTHER ACTION	2013	Pile splice repair at A1 (4) and pier (4); consider placing cobra rods if pile rot is minor.	Programmed if replacement not feasible in 2014	2013		
OTHER ACTION	2013	Excavate A1 & expose all remaining caps & piles.	Programmed if replacement not feasible in 2014	2013		
OTHER ACTION	2013	Assess for bridge replacement rather than repairs due to overall condition and limited life expectancy, if not yet done.	Defer until rehab/replacement	2014		
OTHER ACTION	2013	Set HMs to std.	Programmed if replacement not feasible in 2014	2013		
OTHER ACTION	2013	Band cracked stringers and notched ends of other stringers.	Programmed if replacement not feasible in 2014	2013		
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Maintenance Recommendations											
OTHER ACTION											
Structural Condition Rating (Last/Now) (%)		38.9/33.3		Sufficiency Rating (Last/Now) (%)		42.0/37.6		Est. Repl. Yr	2020	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	(Refer to 2012 Lvl 2 coring report for further details. 24May2012). Bends on bottom chord are minor - monitor. Pier planks can be monitored.					Department Comments	Replacement need year changed from 2016 to 2014 in PMA. DA				
Maintenance Reviewed By	Darron Ahlstedt					Date	30-Apr-2013		Estimated Total	0	
Proposed Long-Term Strategy	2006.12.29 Bridge is getting near end of useful life. With normal maintenance should be good until 2025.										
On 3-Year Program (Y/N)											
Proposed Action											
Previous Inspector's Name	Garry Roberts					Previous Assistant's Name					
Next Inspection Date	07-Dec-2014					Previous Inspection Date	24-May-2012				
Inspection Cycle (Default) (months)	21										
Comment											