

Bridge Inspection										
Bridge File Number	77074 -1 Bridge					Form Type	TH			
Year Built/Year Supstr	1970/1948					Lot No.	2			
Bridge or Town Name	SUNDRE					Inspector Name	Garry Roberts			
Located Over	JAMES RIVER, 3.95, WATERCRS-ST					Inspector Class	BR CLS A			
Located On	734:12 C1 35.003					Assistant Name				
Water Body Cl./Year						Assistant Class				
Navigabil. Cl./Year						Inspection Date	21-May-2012			
Legal Land Location	NE SEC 10 TWP 33 RGE 9 W5M					Data Entry By	Marcia Chavez			
Longitude, Latitude	-115:11:03, 51:49:21					Data Entry Date	20-Aug-2012			
Road Authority	Alberta Transportation (AIT)					Reviewer Name	John O'Brien			
Contract Main. Area	CMA18					Review Date	28-Jul-2012			
Clear Roadway/Skew	6.7 / 0 deg.					Dept. Reviewer Name	Andrew Smikles			
AADT/Year	100 / 2011 (A)					Dept. Review Date	21-Aug-2012			
Road Classification	RLU-208G-90					Follow-Up By				
Detour Length (km)	50									
Allowable Load (t):	Single	CS1 40 STRINGER			Semi	CS2 60 U2L3		Train	CS3 74 U2L3	----> 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)	4.7	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	4.7	In Advance (Y/N)	Yes
Remarks Measured 4.89 & 4.9m. Clearance sign detached & chipped at S bracket; 1 bolt pulled through.												
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	SE too low.											
Other Sign Types	Narrow bridge, max 1 truck on bridge, stop if oncoming traffic, river ID.											

Utilities (Located at)												
Utility Attachments												
Telephone						Gas						
Power						Municipal						
Others						Problem (Y/N)	No					
Remarks	None visible.											

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curve at both ends. Limited sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	7.000			Gravel.
Approach Bump		6	5	
Guardrail (Y/N)	No			
Guardrail		X	X	
Length (m)				
Current Standard (Y/N)				
Termination Type				
Drainage		7	6	
Approach Road General Rating		5	5	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : TH, 1 Spans, Lengths(m): 34.1, A-Ident Number: A0664-03)						
Special Features						
Special Feature			X			
(Type :)						
Special Feature			X			
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)	10% gravel.	
Last	100	0	0	0		
Now	10.0	0.0	0.0	0.0		
Wearing Surface/Deck Top				N	4	Wearing up to 40mm along wheel path. 6 planks split or rotted at ends.
(Material Type : UNTREATED TIMBER)						
(Plank Thickness(mm) : 75)						
(Plank Width(mm) : 300)						
Deck Rideability			5	5		
Deck Joints			X	X		
Temperature (deg. C)		17				
(Expansion Type :)						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
Curbs/Wheel Guards			N	4	2 blocks split & rotated at W side with 1 broken hook bolt.	
(Curb Type : Standard)						
(Type : TREATED TIMBER)						
(Thickness(mm) : 100)						
(Width(mm) : 300)						
Bridge Rail			2	3	No railing after batter posts Missing 32 J-bolts (rail to truss).	
(Type : LATTICE)						
Bridge Rail Posts/Blocking			2	3	Truss members used as support. No steel end posts.	
(Type :)						
Bridge Rail/Posts Coating			4	4	10% failed.	
(Type : PAINT)						
Sidewalk			X	X		

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : TH, 1 Spans, Lengths(m): 34.1, A-Ident Number: A0664-03)						
Wide Load Damage (Y/N)	No					Scraped and minor nicks. Minor high load damage. 60x130 dent in L1U1 at mid-height. U1U1 has 4 notches, U6U6 has 2 notches Need new bolts at U1W, U3W, U4E & L7E (8-bolts). Missing 1 bolt @ U6E & W gusset plates - not required. U3W has masking tape between contact surfaces. L1L2W bent & bowed from impact.
High Load Damage (Y/N)	Yes					
Top Chord			7	7		
Batter Posts			7	6		
Sway Bracings			4	5		
Diagonals			7	7		
Verticals			7	5		
Portals			4	5		
Connections			4	4		
Floor Beams			7	7		
Bottom Chord			5	5		
(No. of Stringers : 91)						
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Stringers			7	7		13/bay.
(Type : STEEL)						
(Width(mm) : 310)						
(Depth(mm) : 125)						
(Spacing(mm) : 570)						
Paint Condition			4	4		15% peeled between top coat & primer. 10% has rust blooming through paint. Blue.
(Colour Description :)						
(Colour Code :)						
Touchup Required (Y/N)	No					
Bearings			4	5		North South
Temperature (deg. C)	17					
(Expansion Type : ROLLER NEST BEARING)						
(Fixed Type : PINNED BEARING)						
Functioning (Y/N)	Yes					
Sub Deck/Deck Underside			4	5		Laminated. Subdeck @ S abutment between 4 and 6 split.
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 100)						
(Plank Width(mm) : 50)						
Defects (Percent Area)	1					
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) : Y)						
(Extended Backwall Piles Spacing(mm) : 1500)						
8 - HP 310 x 94 corbel / 1 - HP 310 x 94 full length of cap in front & 2 - 310 x 94 short caps in back, and 1 TT top cap=12.						

Substructure						
Bridge Component				Last	Now	Explanation of Condition
(Total Number of Caps/Corbels : 12:12)						TT backwall caps at both abuts. Short 1.5m end caps at NE & SE have rot but are not load carrying caps & do not affect cap rating. Not included in cap count.
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 : STEEL)						
(Depth(mm) : 310)						
(Width(mm) : 310)						
Backwalls/Breastwalls						
Greatest Height (m)				4.00		
Wingwalls				7	5	
(Total Number of Bearing Piles : 14:14)						2 rows of 7 piles at each abut with steel capital.
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last	0	0	0	0		
Now	0	0	0	0		
Piles				7	5	
Paint/Coating				X	X	
Abutment Stability				4	5	
Scour/Erosion				6	6	
Piers/Bents						
(Type :)						
(Total Number of Caps/Corbels :)						
Bearing Seats/Caps/Corbels Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Bearing Seats/Caps/Corbels				X	X	
(Type :)						
(Total Number of Bearing Piles :)						
Piles Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Pier Shaft/Piles				X	X	
Greatest Height (m)						
Bracing/Struts/Sheathing				X	X	
Nose Plate				X	X	
Paint/Coating				X	X	
(Colour Description :)						
(Colour Code :)						
Pier Stability				X	X	
Scour				X	X	
Debris (Y/N)		No				

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		4	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				Curve u/s.
(D/S Direction : E)				
Alignment		7	6	
Bank Stability		5	5	NE bank erosion.
HWM (m below Top of Curb)				HWM not visible. Large-sized drift.
Drift (Y/N)	Yes			
Slope Protection		5	5	
(Type : NATURAL; NATURAL)				
Guidebank/Spurs		X	X	
Adequacy of Opening		6	6	
(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	Upgrade rail to double layer flexbeam, install steel end posts and tie in to new approach rail					
RETROFIT BRIDGE RAIL							
SEAL CURBS	2012	Replace rotated wheelguard blocks & 1 hook bolt.					
PATCH DECK	2012	Replace 6 planks, 75x305x2.6.					
SEAL DECK							
OVERLAY DECK							
REPLACE STRIP DECK							
REPLACE SUB DECK	2016	Check subdeck at next stripdeck replacement.					
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
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							
OTHER ACTION	2016	Replace various bolts (see 2010 UT report).					
OTHER ACTION	2012	Set HMs to std height.					
OTHER ACTION	2012	Replace clearance sign at S portal.					
OTHER ACTION	2016	Grind notches smooth at both portals.					
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/50.0	Sufficiency Rating (Last/Now) (%)	54.8/56.7	Est. Repl. Yr	2028	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Piles and TT caps cored on 21May2012. No rot found in piles or caps except at short top cap sections at each corner, but not load carrying caps & no influence on ratings - G.Roberts, 21May2012.		Department Comments				
Maintenance Reviewed By			Date			Estimated Total	0

Proposed Long-Term Strategy	2006.01.17 Bridge should be good until 2030 with normal maintenance. Substructure may drive rehab/replacement.		
On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Owen Salava	Previous Assistant's Name	
Next Inspection Date	21-Aug-2015	Previous Inspection Date	29-Nov-2010
Inspection Cycle (Default) (months)	39		
Comment			