

Bridge Inspection											
Bridge File Number	74382 -1 Bridge					Form Type	TH				
Year Built/Year Supstr	1975/1929					Lot No.	1				
Bridge or Town Name	ROLLING HILL					Inspector Name	Jason Rusu				
Located Over	BOW RIVER, 2.13, WATERCRS-ST					Inspector Class	BR CLS A				
Located On	875:04 C1 4.449					Assistant Name					
Water Body Cl./Year						Assistant Class					
Navigabil. Cl./Year						Inspection Date	18-Mar-2012				
Legal Land Location	NW SEC 31 TWP 13 RGE 13 W4M					Data Entry By	Erin Roberts				
Longitude, Latitude	-111:46:40, 50:07:49					Data Entry Date	11-Apr-2012				
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Tom Carey				
Contract Main. Area	CMA23					Review Date	23-Mar-2012				
Clear Roadway/Skew	5.5 /					Dept. Reviewer Name	Tim Davies				
AADT/Year	310 / 2011 (A)					Dept. Review Date	17-Apr-2012				
Road Classification	RCU-209-110					Follow-Up By					
Detour Length (km)	50										
Allowable Load (t):	Single	CS1 21 STRINGER			Semi	CS2 38		Train	CS3 54		----> 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)	4.4	In Advance (Y/N)	Yes	Lane	SB	On Bridge (m)	4.4	In Advance (Y/N)	Yes	
Remarks													(4.58/4.59 measured span 3 N/S, 4.59/4.58m Span 2, 4.66/4.65 span 1) 14-June-2011
Required Load Posting (t)			Single	22		Semi	38		Truck Train	54			
Posted Loading (t)			Single	22.0		Semi	38.0		Truck Train	54.0			
Posted:	Lane	NB	At Junction (Y/N)	Yes	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													NB junction sign 0.5km North of hwy 524 junction

Hazard Marker At Bridge (Y/N)	Yes											
Remarks	Bump sign (Red Diamond at South Approach)											
Other Sign Types	Narrow bridge/stop for oncoming traffic, One truck on bridge @ a time, Steep grade. 65 kmh.											

Utilities (Located at)												
Utility Attachments												
Telephone	Conduit @ West stringers.					Gas						
Power	West ROW, crossing road 20m North.					Municipal						
Others	Fibre optics @ West r/w.					Problem (Y/N)	No					
Remarks												

Approach Road				
		Last	Now	Explanation of Condition
Horizontal Alignment		5	5	Curve at North + South 5% Grade
Vertical Alignment		6	6	
Roadway Width (m)	9.000			Unsafe approach settlement at South settled at South 50mm.
Approach Bump		7	3	
Guardrail (Y/N)	Yes			Not thriebeam
Guardrail		7	6	
Length (m)	30.000			
Current Standard (Y/N)	No			
Termination Type	TURNED DOWN			
Drainage		7	4	Approach settlement.
Approach Road General Rating		5	3	

Superstructure						
Bridge Component		Last	Now	Explanation of Condition		
(Primary Span : TH, 3 Spans, Lengths(m): 61-91.4-61, A-Ident Number: A0150-05;A0116-01;A0116-02)						
Special Features						
Special Feature			X	Truss ID plaque A116-02 is missing		
(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	0.0		
Wearing Surface/Deck Top				4	4	10% starting to rot, ends breaking up. Nails and nail heads exposed in isolated locations.
(Material Type : UNTREATED TIMBER)						
(Plank Thickness(mm) : 75)						
(Plank Width(mm) : 285)						
Deck Rideability				5	6	
Deck Joints				X	X	
Temperature (deg. C)		6				
(Expansion Type :)						
(Fixed Type :)						
Gap Size (mm)		Gap Location				
Curbs/Wheel Guards				5	4	2 split wheel guard block in North span East truss. 1 wheel guard section cracked from accident damage at NE.
(Curb Type : Standard)						
(Type :)						
(Thickness(mm) : 90)						
(Width(mm) : 285)						
Bridge Rail				5	4	Steel 'T' sections. Span 5 sleeve bolts, Span 2 1 sleeve bolt sheared, Span 3 - 1 sleeve bolt sheared Brown painted T sections
(Type : BRIDGE TUBE)						
Bridge Rail Posts/Blocking				5	4	
(Type :)						
Bridge Rail/Posts Coating				7	7	
(Type :)						
Sidewalk				X	X	

Superstructure						
Bridge Component				Last	Now	Explanation of Condition
(Primary Span : TH, 3 Spans, Lengths(m): 61-91.4-61, A-Ident Number: A0150-05;A0116-01;A0116-02)						
Wide Load Damage (Y/N)	Yes					S1-U2U2, bent with cracked clip welds. U3U3 bent 500 mm. S1-U8L7 W inside angle damaged. (S3-U5L5E tie plate missing 1 m below sway brace.) (S3-U6L5 E inside angle damage.) (S1-U9W gusset cut short.) 23 bolts required at 14 locations (S3-U8WU9E broken clip at U9E.) Stringer count for 10, 14 and 10 bays respectively Widespread high load damage at span 1: U1U1, U2U2, U3U3, U6U6, U7U7; span 3: U2U2, U3U3, U4U4, U5U5, U6U6, U7U7, U8U8. High load damage at both portals - minor wide load damage. S1U9L10 at West batter post. S3U8L7 (50mm bent) at West. Section loss at sway bracing at connection to South portal U9 West.
High Load Damage (Y/N)	Yes					
Top Chord			7	7		
Batter Posts			6	4		
Sway Bracings			3	3		
Diagonals			3	4		
Verticals			5	5		
Portals			5	4		
Connections			4	4		
Floor Beams			7	7		
Bottom Chord			6	5		
(No. of Stringers : 9;10;9)						
Stringer Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Stringers			7	7		
(Type : STEEL)						
(Width(mm) : 125)						
(Depth(mm) : 305)						
(Spacing(mm) : 650)						
Paint Condition			5	5		
(Colour Description :)						
(Colour Code :)						
Touchup Required (Y/N)	No					
Bearings			4	4		
Temperature (deg. C)	5					
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)						
(Fixed Type : PINNED BEARING)						
Functioning (Y/N)	No					
South abut bearings over expanded + a/b's re-welded Rollernest at P1 and P2 A1 neoprene, teflon, stainless A2, P1, P2 25mm tear in gusset at Southeast abutment bearing.						
Sub Deck/Deck Underside			5	5		
(Material Type : TREATED TIMBER)						
(Plank Thickness(mm) : 95)						
(Plank Width(mm) : 285)						
Defects (Percent Area)	10					
Span Alignment Problems						
Vertical (Y/N)	No					
Horizontal (Y/N)	No					
Superstructure General Rating			3	3		
Substructure						
Bridge Component				Last	Now	Explanation of Condition
Abutments						
(Extended Backwall Piles (Y/N) :)						
(Extended Backwall Piles Spacing(mm) :)						

Substructure								
Bridge Component		Last	Now	Explanation of Condition				
(Total Number of Caps/Corbels : :)								
Bearing Seats/Caps/Corbels Detail Ratings								
	N (count)	1 (count)	2 (count)	3 (count)	MASSIVE CONCRETE			
Last	0	0	0	0				
Now	0	0	0	0				
Bearing Seats/Caps/Corbels			7	7				
(Type : CONCRETE)								
(Depth(mm) :)								
(Width(mm) :)								
Backwalls/Breastwalls			7	7				
Greatest Height (m)		2.80						
Wingwalls			7	7				
(Total Number of Bearing Piles : 0:0)								
Piles Detail Ratings								
	N (count)	1 (count)	2 (count)	3 (count)	Buried.			
Last	1	0	0	0				
Now	100	0	0	0				
Piles			N	N				
Paint/Coating			7	7				
Abutment Stability			5	5			(South abut. has possibly slid towards stream)	
Scour/Erosion			5	5				
Piers/Bents								
(Type : PIER-SOLID)								
(Total Number of Caps/Corbels : :)								
Bearing Seats/Caps/Corbels Detail Ratings								
	N (count)	1 (count)	2 (count)	3 (count)	MASSIVE CONCRETE (Old HP piling visible and potentially a hazard by pier Jan 22 2009)			
Last	0	0	0	0				
Now	0	0	0	0				
Bearing Seats/Caps/Corbels			7	7				
(Type : CONCRETE)								
(Total Number of Bearing Piles : 0:0)								
Piles Detail Ratings								
	N (count)	1 (count)	2 (count)	3 (count)	Piles not visible			
Last	100	0	0	0				
Now	100	0	0	0				
Pier Shaft/Piles			7	7				
Greatest Height (m)		12.00						
Bracing/Struts/Sheathing			X	X				
Nose Plate			N	7			Mostly under water	
Paint/Coating			N	4	(90% GONE @ NOSE PLATES - 2009) But no corrosion visible.			
(Colour Description :)								
(Colour Code :)								
Pier Stability			8	8				
Scour			N	N			Spring flow	
Debris (Y/N)		No						

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Substructure General Rating		5	5	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : W)				
(D/S Direction : E)				
Alignment		8	8	
Bank Stability		7	7	
HWM (m below Top of Curb)				HWM not visible
Drift (Y/N)	No			
Slope Protection		7	7	Class 2 @ SA, natural & NA
(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	2012	Replace 7 bridge rail bolts.					
RETROFIT BRIDGE RAIL							
SEAL CURBS	2012	Replace 2 wheel guard block (450mm x 300mm x 150mm)					
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPLACE STRIP DECK							
REPLACE SUB DECK							
RESET/ PAINT BEARINGS							
REPAINT SUPERSTRUCTURE							
STRAIGHTEN/REPLACE MEMBERS	2012	S1-U8L7W (inside <), U2U2 and U3U3 (bot <). [S6-UU6L5E (bot <). S1-U2L2 (clip <). U9U9 gusset plate. S3-U8WU9E clip. U5L5 tie plate.] 14- June-2011					
WASHING							
SHOTCRETE REPAIRS							
CORE TIMBER CAPS/CORBELS							
REPAIR/REPLACE TIMBER CAPS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2012	Replace 1 wheelguard section Span East					
OTHER ACTION	2012	Install tags ID at Span 3 A011-02					
OTHER ACTION	2012	Check vertical clearance					
OTHER ACTION	2012	Repair South approach					
STRAIGHTEN MEMBERS	2012	23 bolts high load damage and S3U8L7 West, grind smooth damage at S1U9L10- West batter post.					
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	44.4/44.4	Sufficiency Rating (Last/Now) (%)	39.4/30.4	Est. Repl. Yr	2035	Maint. Req. (Y/N)	Yes
Special Comments for Next Inspection	Verify vertical clearance during heat straightening of laterals. J Rusu March 23, 2012.		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	Ed Kowal	Previous Assistant's Name	
Next Inspection Date	18-Jun-2015	Previous Inspection Date	14-Jun-2011
Inspection Cycle (Default) (months)	39		
Comment			