

Bridge Inspection											
Bridge File Number	78572 E-1 Bridge				Form Type	PSR					
Year Built/Year Supstr	1979/1979				Lot No.	2					
Bridge or Town Name	MEDICINE HAT				Inspector Name	Tom Carey					
Located Over	SOUTH SASKATCHEWAN RIVER, 2, WATERCRS-ST				Inspector Class	BR CLS A					
Located On	1:21 R1 4.089				Assistant Name						
Water Body Cl./Year					Assistant Class						
Navigabil. Cl./Year					Inspection Date	09-Feb-2012					
Legal Land Location	NE SEC 35 TWP 12 RGE 6 W4M				Data Entry By	Lauren Korte					
Longitude, Latitude	-110:43:11, 50:02:40				Data Entry Date	25-Mar-2012					
Road Authority	Alberta Transportation (AIT)				Reviewer Name	Garry Roberts					
Contract Main. Area	CMA23				Review Date	26-Feb-2012					
Clear Roadway/Skew	13.4 / -37 deg. (LHF)				Dept. Reviewer Name	Tim Davies					
AADT/Year	23,240 / 2011 (A)				Dept. Review Date	29-Mar-2012					
Road Classification	RFD-412.4-130				Follow-Up By						
Detour Length (km)	1										
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)	Yes	At Bridge (Y/N)	No			
Remarks	Not required. Temporarily 2-way traffic- during construction of new W/B bridge.										
Hazard Marker At Bridge (Y/N)	No										
Remarks	24-46-62.5 small sign advance W/B 2-way traffic.										
Other Sign Types	Route, speed, max 80km/hr										
Utilities (Located at)											
Utility Attachments											
Telephone					Gas						
Power	Main lines to South.				Municipal						
Others	Light standards.				Problem (Y/N)	No					
Remarks											
Approach Road											
			Last	Now	Explanation of Condition						
Horizontal Alignment			6	6	Curve and hill East.						
Vertical Alignment			6	6							
Roadway Width (m)	12.300				Paving lip broken- 2m X 300mm X 25mm DP at W/B lanes at West abutment deck joint.						
Approach Bump			5	4							
Guardrail (Y/N)	Yes				Concrete Barrier.						
Guardrail			5	5							
Length (m)	45.000										
Current Standard (Y/N)	Yes										
Termination Type	TURNDOWN										
Drainage			6	6							
Approach Road General Rating			6	6							

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : FM, 8 Spans, Lengths(m): 37.5-37.8-37.8-37.9-37.9-37.8-37.8-37.5, A-Ident Number:)					
Special Features					
Special Feature		7	7		
(SType : EXT SHEAR STIRRUP)					
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		4	4	Epoxy and chip coat over concrete. About 5% of epoxy failed at A1 and several pier joints. Delineators down center of bridge- temporarily 2 way traffic.	
(Material Type : CONCRETE - CONVENTIONAL CHIP SEAL COAT)					
(Thickness(mm) : 70)					
Lateral Connection Problem (Y/N)	No				
Deck Top		N	N		
Deck Rideability		7	7	Paving lip at W/B lanes at West abut joint broken out 2m X 300mm X 25mm deep.	
Deck Joints		3	3	(E abut joint-3 broken finger welds.)- could not confirm.	
Temperature (deg. C)		-10		(40mm gap-pier 6). (40mm gap-pier 7). (130mm gap-E abut).	
(Expansion Type : FINGER PLATES;ARMoured GLAND (WABO UNDER FINGER OR SLIDING PLATES);GLAND (WABO-MAUER, TRANSFLEX, ETC))				(P-4 joint - several broken finger welds West abut joint-6 broken finger toe welds).	
(Fixed Type :)					
Gap Size (mm)		Gap Location			
115		W abut		Finger joints A1- P4- A2. Strip seal-at all others.	
40		Pier 1		Joints gravel filled and traffic too heavy to inspect or measure joints.	
15		Pier 2			
15		Pier 3			
190		Pier 4			
40		Pier 5			
Deck Drainage		7	7		
Drains Clogged (Y/N)		No			
Curbs/Median		3	3	Surface spalls @ 10% of barrier.	
(Curb Type : Standard)					
Scaling (Percent Area)		20			
Bridge Rail		3	3	Pedestrian rail @ South- 18 missing or loose top connector bolts.	
(Type : ALUMINUM VERTICAL BAR)				1 Bent vertical @ panel #7 from SE with 220mm spacing @ pedrail.	
Bridge Rail Posts		4	4	Several post A/B nuts with less than full thread.	
(Type : ALUMINUM;ALUMINUM)					
Bridge Rail/Posts Coating		X	X		
(Type :)					
Sidewalk		4	4	Electrical access panels @ sidewalk @ P2 + P4 missing 5 bolts. 120 X 300 spall @ P5, Del AM cracks @ P3.	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	
Last	0	0	0	0	
Now	0	0	0	0	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : FM, 8 Spans, Lengths(m): 37.5-37.8-37.8-37.9-37.9-37.8-37.8-37.5, A-Ident Number:)				
Girders		4	4	Typical medium width chamfer cracks & long cracks @ webs.
Cracking (Y/N)	Yes			Minor spalls @ SE G1 & G2 @ bearing @ abut.
Spalling (Percent Area)	1			
(Number Of Girders : 80)				
Diaphragms/Cross Frame		6	6	
Bearings		5	5	Retaining block @ NW abut-broken. NW bearing is slid 20mm off masonry plate @ West abut.
Temperature (deg. C)	-10			No change from past inspections.
(Expansion Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)				
(Fixed Type : REINFORCED NEOPRENE BEARING WITH TEFLON AND STAINLESS STEEL)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		7	7	Only end 3 spans @ West end seen & 3 spans @ East seen.
Stains (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				
Bearing Seats/Caps		7	7	
(Type : CONCRETE)				
Backwalls/Breastwalls		7	7	
Wingwalls		7	7	
Piles		N	N	Buried.
Paint/Coating		X	X	
Abutment Stability		7	7	
Scour/Erosion		7	7	
Piers/Bents				
(Type : PIER-SOLID)				7 piers.
Bearing Seats/Caps		6	6	Wide cracks @ top @ pier #5 @ South & 4, 5 @ North - outside of bearing area.
(Type : CONCRETE)				
(Total Number of Bearing Piles : 0:0:0:0:0:0:0)				
Pier Shaft/Piles		7	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		7	7	
Paint/Coating		5	5	@ Nose plate - no paint on concrete.
(Colour Description :)				
(Colour Code :)				
Pier Stability		7	7	
Scour		N	N	Too deep and ice.

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
Substructure General Rating		6	6	
Structure Usage				
		Last	Now	Explanation of Condition
Channel				
(U/S Direction : S)				
(D/S Direction : N)				
Alignment		7	7	
Bank Stability		6	6	
HWM (m below Top of Curb)	7.0			No visible HWM.
Drift (Y/N)	No			
Slope Protection		6	6	With class 2 @ toe. Minor breakage @ abut @ SE.
(Type : CONCRETE; CONCRETE)				
Guidebank/Spurs		X	X	
Adequacy of Opening		7	7	
(Fish Compensation Measure 1 : NONE)				
(Fish Compensation Measure 2 : NONE)				
Channel General Rating		6	6	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Install 16 missing rail bolts- tighten others.					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2013	Patch jersey Barriers .					
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2013	Weld Fingers- check all fingers- if not done. Patch paving lip @ NW abut joint.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Patch sidewalk spalls @ P5.					
OTHER ACTION	2013	Install bolts @ sidewalk. Electrical plates-5.					
OTHER ACTION	2013	Repair pedrail panel #7 from East.					
OTHER ACTION							
Structural Condition Rating (Last/Now) (%)	55.6/55.6	Sufficiency Rating (Last/Now) (%)	56.8/56.8	Est. Repl. Yr	2032	Maint. Req. (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	Garry Roberts		Previous Assistant's Name				
Next Inspection Date	09-Nov-2013		Previous Inspection Date	14-Jul-2010			
Inspection Cycle (Default) (months)	21						
Comment							