

Bridge Inspection									
Bridge File Number	77199 -1 Bridge					Form Type	PSR		
Year Built/Year Supstr	1970/1970					Lot No.	1		
Bridge or Town Name	CALGARY - MCKNIGHT BOULEVARD					Inspector Name	Garry Roberts		
Located Over	2:15 R1 38.801;2:15 L1 38.896;RAMP 4088-1 A					Inspector Class	BR CLS A		
Located On	10250:02 R1 0.323;10250:02 L1 0.332					Assistant Name			
Water Body Cl./Year						Assistant Class			
Navigabil. Cl./Year						Inspection Date	09-Jan-2013		
Legal Land Location	SW SEC 2 TWP 25 RGE 1 W5M					Data Entry By	Lauren Korte		
Longitude, Latitude	-114:02:30, 51:05:46					Data Entry Date	23-Jan-2013		
Road Authority	Alberta Transportation (AIT)					Reviewer Name	Tom Carey		
Contract Main. Area	DEERFOOT/STONEV					Review Date	17-Jan-2013		
Clear Roadway/Skew	23.2 /					Dept. Reviewer Name	Tim Davies		
AADT/Year	40,155 / 2001 (E)					Dept. Review Date	25-Jan-2013		
Road Classification	RLU-208-100					Follow-Up By			
Detour Length (km)	10								
Allowable Load (t):	Single		Semi		Train		----> On Critical Spans ---->Critical Member		
Design Loading:	HS20						----> Primary Span		

Posting Information												
Required Vert. Clearance Posting (m)	UNDER: 2 L1 5.5m, 2 R1 5.1m											
Posted Vertical Clearance (Y/N)	Yes											
Posted:	Lane	NB	On Bridge (m)	5.1	In Advance (Y/N)		Lane	SB	On Bridge (m)	5.4	In Advance (Y/N)	
Remarks	2 bottom bolts pulled through at S/B sign.											
Required Load Posting (t)	Single				Semi				Truck Train			
Posted Loading (t)	Single		30.0		Semi		47.0		Truck Train		63.0	
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	Posted 30-47-63 EB @ file:77201 to W											
Hazard Marker At Bridge (Y/N)	No											
Remarks												
Other Sign Types	40 KM/HR RAMPS, ROUTE, MERGE											

Utilities (Located at)									
Utility Attachments									
Telephone						Gas			
Power	At SW & West pier & abut. Underside deck lighting.					Municipal	Manhole at West & East at median.		
Others	Light standards.					Problem (Y/N)	No		
Remarks	Temp power cable at SW and NW.								

Approach Road									
				<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>			
Horizontal Alignment				5	5	Off ramps. B2127.			
Vertical Alignment				5	5	Ramp grade. Bridge on curve.			
Roadway Width (m)	26.000								
Approach Bump				4	6				
Guardrail (Y/N)	Yes					Concrete parapets.			
Guardrail				4	4	4 spalls at North East and South West. 2 at each.			
Length (m)	65.000								
Current Standard (Y/N)	Yes								
Termination Type	TURNDOWN								
Drainage				7	7				

Approach Road					
			Last	Now	Explanation of Condition
<b>Approach Road General Rating</b>			5	5	
Superstructure					
Bridge Component			Last	Now	Explanation of Condition
(Primary Span : <b>PB, 2 Spans, Lengths(m): 51.5-51.2, A-Ident Number: )</b>					
Special Features					
Special Feature			5	5	North side @ West span.
(SType : <b>LRGE SIGN PANEL</b> )					
Special Feature				X	
(Type : )					
Wearing Surface/Deck Top Detail Ratings					
	N (%)	1 (%)	2 (%)	3 (%)	
<b>Last</b>	0	0	0	0	
<b>Now</b>	0.0	0.0	0.0	0.0	
Wearing Surface			7	7	
(Material Type : <b>POLYMER MODIFIED ACP</b> )					
(Thickness(mm) : <b>50</b> )					
Lateral Connection Problem (Y/N)	No				
Deck Top			N	N	Paved.
Deck Rideability			7	7	
Deck Joints			3	3	Parapet cover plates have few bolts missing or loose.
Temperature (deg. C)		-3			Joint seal torn at East abutment at 2nd E/B lane from median.
(Expansion Type : <b>GLAND (WABO-MAUER, TRANSFLEX, ETC)</b> )					Paving lip broken at West abutment at 1st lane E/B at median at the approach side.
(Fixed Type : )					
Gap Size (mm)		Gap Location			Extrusion is bent and disbanded.
50		E abut			
65		W abut			
Deck Drainage			5	4	Staining @ deck. Underside between structures. Seal @ joint between structures - is failed.
Drains Clogged (Y/N)		No			
Curbs/Median			4	4	Parapets-corrosion, scaling & cracks @ isolated low cover rebar - Worst at South East. Corrosion & some spalls at median. Tops have loose and broken parging at North.
(Curb Type : <b>JERSEY/F SHAPE</b> )					
Scaling (Percent Area)		2			
Bridge Rail			X	X	
(Type : )					
Bridge Rail Posts			X	X	
(Type : )					
Bridge Rail/Posts Coating			X	X	
(Type : )					
Sidewalk			X	X	
Girder Detail Ratings					
	N (count)	1 (count)	2 (count)	3 (count)	Sp.1-G4 has spalls over SB merge lane and over West median both from weep tube drainage.
<b>Last</b>	0	0	0	1	
<b>Now</b>	0	0	0	1	

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : <b>PB, 2 Spans, Lengths(m): 51.5-51.2, A-Ident Number: )</b>				
Girders		3	3	Patched at South West. Minor high load damage at South East. Medium width long cracks at fascia at corners. Narrow intermittent longitudinal cracks at u/s of girders. Efflorescence and leakage at bottom of 2nd girder from North at N/B lanes of highway 2 at Span 2.
Cracking (Y/N)	Yes			
Spalling (Percent Area)	1			
(Number Of Girders : <b>8</b> )				
Diaphragms/Cross Frame		7	7	
Bearings		N	N	Recessed & not seen due to expanded metal. Integral @ pier.
Temperature (deg. C)				
(Expansion Type : )				
(Fixed Type : )				
Coating Adequate (Y/N)				
Functioning (Y/N)				
Deck Underside		3	3	Corrosion @ deck exterior. Spalled at South East exterior over head slope. Surface spall @ NW over S/B ramp lanes - with loose concrete. Spalled areas at weep drains.
Stains (Percent Area)	2			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>3</b>	<b>3</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats/Caps		6	6	
(Type : <b>CONCRETE</b> )				
Backwalls/Breastwalls		6	6	
Wingwalls		3	3	Spalling at NW, NE, SE.
Piles		N	N	Buried.
Paint/Coating		4	4	Scaling and staining at all wings.
Abutment Stability		7	7	
Scour/Erosion		X	X	
<b>Piers/Bents</b>				
(Type : <b>PIER-COLUMN</b> )				Integral @ pier.
Bearing Seats/Caps		8	7	
(Type : <b>CONCRETE</b> )				
(Total Number of Bearing Piles : <b>0</b> )				
Pier Shaft/Piles		8	7	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		7	X	
(Colour Description : )				
(Colour Code : )				
Pier Stability		8	8	
Scour		X	X	

Substructure				
Bridge Component		Last	Now	Explanation of Condition
Debris (Y/N)	No			
<b>Substructure General Rating</b>		<b>6</b>	<b>6</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		6	6	Curves.
Traffic Safety Features		5	5	Cable barrier and metal barrier. Minor damage at solid steel barrier.
Type	Barrier			
Slope Protection		5	5	Settled 150mm at wings at SW. Away 50mm at West.
(Type : <b>CONCRETE; CONCRETE</b> )				
Bank Stability		7	7	
Drainage		6	6	
<b>Grade Separation General Rating</b>		<b>5</b>	<b>6</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Patch spalls at North East and South West approach concrete barriers approx 3m2.					
GALVANIZE/PAINT BRIDGE RAIL							
SEAL CURBS	2013	Remove broken and loose parging on parapet tops at north. Patch at South East approx 5m2.					
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS	2013	Install median deck joint neoprene seal. Replace both abutment joints. Patch West abutment paving lip at E/B lanes approx 0.5m2.					
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION							
OTHER ACTION	2013	Ditch in power cable.					
OTHER ACTION	2013	Blast chip and patch deck underside. Partial depth at SE and NE wings (approx 2m2). Blast and recoat all wings.					
OTHER ACTION	2013	New 5.4m sign at S/B highway 2 on bridge.					
OTHER ACTION	2013	Patch girder spalls Sp.1-G4 (1m2) and seal core hole Sp.2-G3.					
OTHER ACTION	2013	Extend weep drains.					
OTHER ACTION							
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<b>Structural Condition Rating (Last/Now) (%)</b>	<b>50.0/50.0</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>44.2/47.2</b>	Est. Repl. Yr	2030	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	Tom Carey	Previous Assistant's Name	
Next Inspection Date	09-Oct-2014	Previous Inspection Date	21-Apr-2011
Inspection Cycle (Default) (months)	21		
Comment			