

Bridge Inspection										
Bridge File Number	76406 -1 Bridge				Form Type	CON				
Year Built/Year Supstr	1975/1975				Lot No.	2				
Bridge or Town Name	BOWDEN				Inspector Name	Owen Salava				
Located Over	587:03 C1 0.008				Inspector Class	BR CLS A				
Located On	2:22 L1 16.022;2:22 R1 16.022				Assistant Name					
Water Body Cl./Year					Assistant Class					
Navigabil. Cl./Year					Inspection Date	12-Mar-2013				
Legal Land Location	NW SEC 24 TWP 34 RGE 1 W5M				Data Entry By	Marcia Chavez				
Longitude, Latitude	-114:01:30, 51:56:18				Data Entry Date	26-Mar-2013				
Road Authority	Alberta Transportation (AIT)				Reviewer Name	John O'Brien				
Contract Main. Area	CMA19				Review Date	17-Mar-2013				
Clear Roadway/Skew	14.6 /				Dept. Reviewer Name	Chris Black				
AADT/Year	27,020 / 2011 (A)				Dept. Review Date	28-Mar-2013				
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:	HS25				----> Primary Span					

Posting Information												
Required Vert. Clearance Posting (m)			UNDER: 587 C1 5.0m									
Posted Vertical Clearance (Y/N)			Yes									
Posted:	Lane	EB	On Bridge (m)	5.0	In Advance (Y/N)	Yes	Lane	WB	On Bridge (m)	5.0	In Advance (Y/N)	Yes
Remarks		Measured West 5.279m, East 5.214m.										
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		Minor high load damage above EB lanes.										

Hazard Marker At Bridge (Y/N)	No											
Remarks	Not required.											
Other Sign Types												

Utilities (Located at)												
Utility Attachments												
Telephone						Gas						
Power	Street lights East & West of bridge.					Municipal						
Others	Underpass lighting.					Problem (Y/N)	No					
Remarks												

Approach Road																				
			Last	Now	Explanation of Condition															
Horizontal Alignment			7	7	Turn out lanes. 4 lane divided and 1 8.5m turn out @ West.															
Vertical Alignment			8	8																
Roadway Width (m)		34.600																		
Approach Bump			8	8																
Guardrail (Y/N)		Yes																		
Guardrail			7	7																
Length (m)		99.000																		
Current Standard (Y/N)		Yes																		
Termination Type		Turn Down																		
Drainage			4	4									(40m x 1.0 x 6m gully at SE corner, vegetated. Minor erosion at NE corner. 11Aug2011). Ponding along S sidewalk, SW corner (photo).							
Approach Road General Rating			7	7																

Superstructure					
Bridge Component		Last	Now	Explanation of Condition	
(Primary Span : <b>CF, 1 Spans, Lengths(m): 69.2, A-Ident Number: )</b>					
<b>Special Features</b>					
Special Feature			X	Handrail along W headwall & wings. Post broken & rail disconnected at SE rail.	
(Type : )					
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	Transverse crack at NBL above the N wall.
(Material Type : <b>ACP</b> )					
(Thickness(mm) : <b>50</b> )					
Deck Top			N	N	
Deck Rideability			8	8	
Deck Joints			X	X	
Temperature (deg. C)					
(Expansion Type : )					
(Fixed Type : )					
Gap Size (mm)		Gap Location			
Deck Drainage			4	4	No drains. (Erosion @ NE corner - photo. 11Aug2011) - Snow covered. Wet surface, stains & edge spalls at underside jnt.
Drains Clogged (Y/N)					
Curbs/Median			7	7	0.3mm wide cracks @ 1m spacing.
(Curb Type : <b>Standard</b> )					
Scaling (Percent Area)		0			
Bridge Rail			8	8	East side only. Flexbeam guardrail West side.
(Type : <b>GALVANIZED STEEL FLEX BEAM</b> )					
Bridge Rail Posts			4	4	AB nuts not fully engaged posts 2 & 6.
(Type : <b>GALVANIZED POST STEEL;GALVANIZED POST STEEL</b> )					
Bridge Rail/Posts Coating			7	7	
(Type : <b>GALVANIZED</b> )					
Sidewalk			X	X	
Girders			X	X	
Diaphragms/Cross Frame			X	X	
Bearings			X	X	
Temperature (deg. C)		-2			
(Expansion Type : )					
(Fixed Type : )					
Coating Adequate (Y/N)					
Functioning (Y/N)					

Superstructure				
Bridge Component		Last	Now	Explanation of Condition
(Primary Span : CF, 1 Spans, Lengths(m): 69.2, A-Ident Number: )				
Deck Underside		6	6	Isolated cracks 0.5mm wide. Slight HLD both ends, minor. HLD at ring 6/7 joint above EBL at E end above WBL and at W end above EBL. Rebar is rusting at a few minor spots. Some rust staining near several light fixtures inside of tunnel. At 4th construction joint from East water staining. Some minor spalls/chips at 3 of 6 joints at roof - photo - spall appear sealed.
Stains (Percent Area)	1			
<b>Span Alignment Problems</b>				
Vertical (Y/N)	Yes			Structure has settled slightly based on sidewalk appearance.
Horizontal (Y/N)	No			
<b>Superstructure General Rating</b>		<b>6</b>	<b>6</b>	
Substructure				
Bridge Component		Last	Now	Explanation of Condition
<b>Abutments</b>				
Bearing Seats		X	X	
Backwalls/Breastwalls		6	6	
Wingwalls		7	7	Damaged safety rail & leaning post at SE wingwall.
Piles		N	N	
Paint/Coating		6	6	
Abutment Stability		7	7	
Scour/Erosion		X	X	
<b>Piers/Bents</b>				
(Type : )				
Bearing Seats/Caps		X	X	
(Type : )				
Pier Shaft/Piles		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			
<b>Substructure General Rating</b>		<b>6</b>	<b>7</b>	
Structure Usage				
		Last	Now	Explanation of Condition
<b>Grade Separation</b>				
Road Alignment		8	8	
Traffic Safety Features		5	5	(SE, NE & SW curbs have minor spalls. Exposed rebar, some cracks in sidewalk - photos. 11Aug2011) - Snow covered.
Type	Lights/Sidewalk			
Slope Protection		6	6	Some separation from wingwalls.
(Type : CONCRETE; CONCRETE)				

<b>Structure Usage</b>				
		<b>Last</b>	<b>Now</b>	<b>Explanation of Condition</b>
Bank Stability		8	8	
Drainage		4	4	(Ponding at corners along S sidewalk. 11Aug2011) - Snow covered. Low area of ACP at SW shoulder.
<b>Grade Separation General Rating</b>		<b>4</b>	<b>4</b>	

Maintenance Recommendations							
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #	
REPAIR/REPLACE BRIDGE RAIL	2013	Replace wing post; reset rail. Improve anchorage at posts 2 & 6.					
GALVANIZE/PAINT BRIDGE RAIL							
RETROFIT BRIDGE RAIL							
SEAL CURBS							
PATCH DECK							
SEAL DECK							
OVERLAY DECK							
REPAIR/REPLACE DECK JOINTS							
RESET/ PAINT BEARINGS							
WASHING							
SHOTCRETE REPAIRS							
REPAIR ABUTMENT SCOUR/EROSION							
PLACE ADDITIONAL RIP RAP							
REMOVE DRIFT ACCUMULATION							
OTHER ACTION	2013	Patch sidewalk spalls, if not yet done.					
OTHER ACTION	2013	Mill & pave through pipe.					
OTHER ACTION	2013	Patch HLD chips/scrapes.					
OTHER ACTION	2013	Add ACP to eliminate ponding at SW.					
OTHER ACTION	2013	Seal leaking seam with expanding foam.					
OTHER ACTION							
OTHER ACTION							
<b>Structural Condition Rating (Last/Now) (%)</b>	<b>66.7/72.2</b>	<b>Sufficiency Rating (Last/Now) (%)</b>	<b>45.7/48.1</b>	Est. Repl. Yr	2033	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	Owen Salava		Previous Assistant's Name				
Next Inspection Date	12-Dec-2014		Previous Inspection Date	11-Aug-2011			
Inspection Cycle (Default) (months)	21						
Comment							