

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B08062021-3	
Date: 8/3/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-104 - RUBY LINE OVERPASS EAST		
Route:	2	Overall Length:	34.1 m
Year Built:	1971	Est: No	Overall Width: 0 m
Year Last Rehab.:		Est: No	Roadway Width: 0 m
Region:	AVALON PENINSULA	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	0 m
Type of Structure:	04 - Rigid Frame	Max Depth of N.W.L.:	0 m
Purpose of Structure:	01 - Highway Grade Separation	Spans:	
Type of Handrail:	02 - Concrete Rail	Span No.:	Length
Roadway Surface:	02 - Asphalt	1	19.8
Alignment Vertical:	01 - Good	2	0
Alignment Horizontal:	01 - Good	3	0
Restrictions:	No	4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P1 - Poor	Bearings:	I - Inapplicable
		Bearing Seat:	I - Inapplicable
Comments:	- This is 1-104, traffic heading east on structure. - West support legs have several small spalls & cracks (F1). -		

<p>East support legs, 3 legs in from south side, possible structural cracks with some medium sized spalls. 4 legs in from south side, large cracks with delamination (about to become spalls) (P3). - Southwest corner of abutment/end wall joint has a medium spall showing rebar (P3). Area in front of the abutment has a large spall/deterioration vertical rebar showing (P3). - Northwest corner of abutment/end wall joint has a medium-large spall/deterioration showing the first row of rebar. Rebar has medium corrosion (P3). - Southeast corner of abutment/end wall joint has a large spall/deterioration showing two rows of reinforcement (P1). - Northeast corner of abutment/end wall joint has a large hole (~1mx1m in plan) eroded down through the road gravels and has severely deteriorated the abutment concrete from behind. 5 vertical rows of reinforcement has been exposed. All with medium to severe corrosion (P1). - Washout also evident beneath the structure and is eroding the slope down to the support legs/piers.</p>			
SUPERSTRUCTURE			
Condition:	F2 - Fair	Expansion Joints:	U - Uninspectable
Comments:	- This is 1-104, traffic heading east on structure. - Possible plug joints, paved over. - Underside of deck in excellent condition. Minor to no cracking evident (F2).		
DECK			
Condition:	P3 - Poor	Curbs:	P1 - Poor
Hand Rail:	P3 - Poor	Roadway Condition:	P1 - Poor
Approach Rail:	P1 - Poor		
Comments:	- This is 1-104, traffic heading east on structure. Asphalt in fair condition. No potholes but some cracking starting to form (F1). Exit guard rails have a post missing on the north side(P1). South side ok (F1). - Approach guard rails on the north side has a broken post. - Approach rail not up to code. Several posts missing/never installed to absorb an impact into the end blocks. Hazard markers missing (P1). - Both fascia's have many medium sized spalls to the first row of reinforcement which is severely corroded (P1). Cracking also evident with efflorescence. Cold joint exists from construction phase in the concrete. - Curbs/parapet wall on the north side has severe spalling with exposed reinforcement and severely corroded (P1).		
HYDROLOGY			
Water Velocity:	n/a m/s	Ice Problem:	NA - Not Applicable
Water Depth:	n/a m	Scour Problem:	NA - Not Applicable
Waterway:	03 - Not Applicable	Debris Problem:	NA - Not Applicable
Comments:	Underpass.		
REPLACEMENT/REHABILITATION			
Next Rehab. Date:	2021	Replacement Year:	2040
Antic. Rehab. Cost:	\$250000	Replacement Cost:	\$2500000
Recommendations:	- This is 1-104, traffic heading east on structure. Fix all abutment corners ASAP. Water likely the cause of abutment corner deteriorations. Structure has no deck drains, install drains ASAP to prevent the above. Extend expansion joints out to end wall if possible. A lot of water is getting in here and causing the aforementioned issues.- Repair curb/parapet walls. - Repairs concrete defects on fascia's a support legs.		
OBSERVATIONS			
Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- This is 1-104, traffic heading east on structure. Inspection hazards: Traffic. Inspect deck from shoulders and median, travelling under the structure. Watch footing on steep slopes. If deck access is needed, you need traffic control.		