

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B06182024-1	
Date: 6/18/2024	Inspected By: Damien Burns	Category: Eng. - Engineering	
BRIDGE INFORMATION			
Site:	2-178 - PIPER'S HOLE BRIDGE (OLD)		
Route:	210	Overall Length:	36 m
Year Built:	1939	Est: No	Overall Width: 6 m
Year Last Rehab.:		Est: No	Roadway Width: 5.5 m
Region:	CENTRAL EAST	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	4 m
Type of Structure:	06 - Concrete Arch/TechSpan	Max Depth of N.W.L.:	0.5 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	02 - Concrete Rail	Span No.:	Length
Roadway Surface:	01 - Concrete	1	16
Alignment Vertical:	01 - Good	2	16
Alignment Horizontal:	01 - Good	3	0
Restrictions:	Yes	4	0
Describe Restrictions:	ATV's and pedestrians only.		
5	0	6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	U - Uninspectable
		Bearing Seat:	U - Uninspectable
Previous inspection - Abutment is in fair condition. The abutment exterior corners have medium map cracking			

Comments: with efflorescence. The exterior corners have small to moderate spalls. There is light disintegration at the top of the abutment, F1. The West wingwall has severe map cracking with efflorescence. There are medium spalls in the center of the wingwall and on the exterior corner by the abutment. There is very severe efflorescence leaching from the end block construction joint, P3. The East wingwall has two severe cracks spanning from the soil to the top of the wingwall. A small spall is visible at the base of one of the cracks, P3. The noses of the pier are severely disintegrated/spalling. The spalls and disintegration extend from the pier noses towards the interior in some places. There is moderate map cracking with a heavy presence of efflorescence throughout the pier. The concrete surface appears to be stained from corroded steel in local areas. There is light scour under the pier, P3. New inspection - Severe efflorescence build up on pier.

SUPERSTRUCTURE

Condition:	P3 - Poor	Expansion Joints:	I - Inapplicable
Comments:	Previous inspection - Diaphragms are overall in fair condition. There is some light spalling and cracking throughout the span of the bridge. There is light disintegration/spalling on the ends of the diaphragms under the curb fascia, F1. Deck soffit is in fair condition. There is light to moderate disintegration throughout the span of the bridge. There are small cracks with efflorescence in local areas. There is a longitudinal joint near the West abutment. There is light map cracking visible along the joint, F1. The arch have very severe disintegration/spalling spanning most of the area. The remaining concrete surface has very severe map cracking with efflorescence. There is exposed reinforcement from the disintegration. The exposed reinforcement bars and ties are lightly to moderately corroded, P1. There is severe disintegration/spalling on sections of the outer curb fascia. Some of the disintegrated sections are exposing corroded rebar and ties. There are small cracks with efflorescence on areas of the inner section of the fascia, P3.		

DECK

Condition:	P3 - Poor	Curbs:	P3 - Poor
Hand Rail:	P1 - Poor	Roadway Condition:	P3 - Poor
Approach Rail:	P1 - Poor		
Comments:	Previous inspection - Exposed concrete deck. There are moderate and severe potholes throughout deck. The deck has moderate to severe disintegration spanning the East side of the deck. There is vegetation growth in construction joints. P3. There is very severe disintegration in large areas of the curbs. Some sections are completely disintegrated, with only lightly corroded rebar remaining. The areas of curb still intact have moderate to severe map cracks with efflorescence, P3. There is severe map cracking and spalling on the end blocks. All end blocks are very severely disintegrated. Some end blocks are showing exposed rebars that have moderate to severe corrosion, P1. Some of the structure rail posts are very severely disintegrated, exposing a large portion of the rebar. The exposed rebar is lightly corroded. Some of the structure rail posts have moderate to severe map cracking with efflorescence, P1. New inspection - Ground water running on to deck from trail and causing water build up on deck, could be due to previous weather. - Some hand rail on the bridge is now missing near abutment #1.		

HYDROLOGY

Water Velocity:	1.5 m/s	Ice Problem:	N - No Problem
Water Depth:	0 m	Scour Problem:	K - Known Problem
Waterway:	02 - InAdequate	Debris Problem:	N - No Problem
Comments:	Previous inspection - Structure overtopped during hurricane Igor. Moderate scour on the pier. Deep water and strong current. New inspection - Visible rebar in rocks a few meters upstream of the bridge near center pier.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:		Replacement Year:	2027
Antic. Rehab. Cost:	\$0	Replacement Cost:	\$0
Recommendations:	Recommended to remove the structure.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further	Yes
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Inspection:

Additional Observations: - Bridge is in overall poor condition, P3 with P1 and F1 areas. There is severe concrete denigration throughout the entire structure. - North wingwalls are uninspectable. - There are areas of the fascia and deck soffit that are stained black. Suspected to be algae or mold from the water below. - Recommended to remove the structure

Department of Transportation and Infrastructure, Government of Newfoundland and Labrador 2024.