



PORT of
vancouver

Vancouver Fraser
Port Authority

**VANCOUVER FRASER PORT AUTHORITY
PROJECT AND ENVIRONMENTAL REVIEW
REPORT AND PERMIT**

PER No.:	21-199
Tenant:	Vancouver Fraser Port Authority
Project:	Canada Place East Berth Fender Installation
Project Location:	999 Canada Place, Vancouver
Vancouver Fraser Port Authority SID No.:	VAN043
Land Use Designation:	Port Terminal
Applicant/Permit Holder:	Engineering and Maintenance, Vancouver Fraser Port Authority
Category of Review:	B
Date of Approval:	February 22, 2022
Date of Expiry:	February 29, 2024

1 INTRODUCTION

The Vancouver Fraser Port Authority (the “Port Authority”), a federal port authority, manages lands under the purview of the *Canada Marine Act*, which imparts responsibilities for environmental protection. The Port Authority accordingly conducts project and environmental reviews of works and activities undertaken on these lands to ensure that the works and activities will not likely cause significant adverse environmental effects. This project and environmental review report and project permit (the “Permit”) documents the Port Authority’s project and environmental review of PER No. 21-199 Canada Place East Berth Fender Installation (the “Project”) proposed by Engineering and Maintenance (the “Applicant”).

This project and environmental review was carried out to address the Port Authority’s responsibilities under the *Canada Marine Act*, and to meet the requirements of the *Impact Assessment Act*, as applicable. The proposed Project is not considered a “designated project” under the *Impact Assessment Act* and an impact assessment as described in the *Impact Assessment Act* is not required. However, Port Authority authorization is required for the proposed Project to proceed and in such circumstances, where applicable, Section 82 of the *Impact Assessment Act* requires federal authorities to assure themselves that projects will not likely cause significant adverse environmental effects. This review provides that assurance. In addition, the Port Authority considers other interests, impacts and mitigations through the project and environmental review.

The project and environmental review considered the application along with supporting studies, assessments and consultations carried out or commissioned by the Applicant, as well as other information provided by the Applicant. In addition, this project and environmental review considered other information available to the Port Authority and other consultations carried out by the Port Authority. A full list of information sources germane to the review is provided in the following pages of this report.

This Permit is the authorizing document allowing the Applicant to proceed with the Project subject to the listed project and environmental conditions.

2 PROJECT DESCRIPTION

In this project permit, the Project means the physical activities authorized by the Port Authority to be carried out pursuant to **PER No. 21-199**, as described below.

The Applicant proposes to reinstall a fender (i.e., fender F5) on the east berth of Canada Place (Figure 1) to safely accommodate larger cruise ships in the future.

In 2009, fender F5 was removed due to being at the end of its service life. Since its removal, two (2) cruise ships longer than 300 metres have called on the east berth, posing an infrastructure and mooring hazard to Canada Place. In addition, the Port Authority projects that approximately fifty-two (52) cruise ships longer than 300 metres will call on the east berth of Canada Place in 2022. Therefore, fender F5 is required so that:

- Longer ships can meet the safety requirements outlined in the Port Authority Information Guide (i.e., acceptable safe overhang for ships longer than 200 metres is 40 metres, maximum)
- Canada Place dock is not exposed to possible damage from unsupported and over hanging cruise ships

The Project consists of installing two (2) steel piles and a steel floating camel.

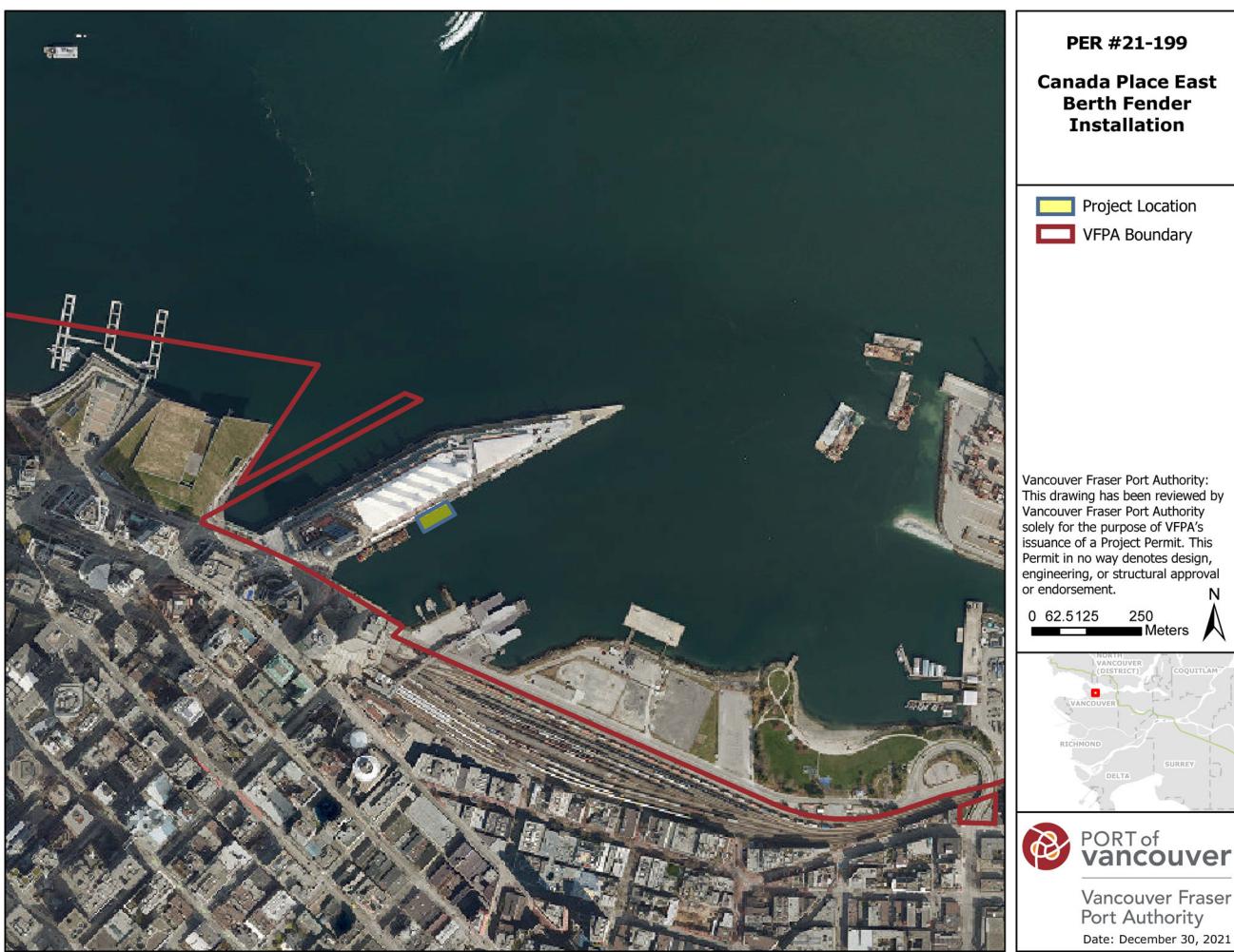


Figure 1. Project location

2.1 Proposed Works

Project activities include:

- Removing approximately 1.5 metres by 0.9 metres by 1.5 metres of reinforced concrete deck, including asphalt, by saw cutting and chipping to facilitate the installation of the piles
- Installing two 20 metre long, 914 millimetre diameter painted steel pipe piles on the east berth
- Installing steel fasteners into concrete

- Reinstating concrete deck and asphalt
- Securing the floating camel to the steel piles using mooring rope

The steel piles and floating camel will be fabricated off-site and delivered to the Project site via barge. Steel piles will be installed using either a vibratory or an impact hammer from a marine derrick.

The anticipated construction timeline is approximately April 1 to August 31, 2022.

2.2 Environmental Effects Summary

The proposed Project has been assessed as having low potential to adversely affect fish or fish habitat. However, if technologies other than a vibratory hammer are required, or vibratory pile driving is conducted outside the least-risk fisheries window (August 16 to February 28), mitigations will be implemented to reduce potential impacts to fish and fish habitat as outlined in condition no. 26.

3 VANCOUVER FRASER PORT AUTHORITY INTERNAL REVIEWS

The following Port Authority departments have undertaken and completed a review of these works and confirm that the proposal meets their requirements, subject to the listed project and environmental conditions.

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Planning | <input checked="" type="checkbox"/> Environmental Programs | <input checked="" type="checkbox"/> Engineering |
| <input checked="" type="checkbox"/> Marine Operations | <input checked="" type="checkbox"/> Project Consultation | |

4 INDIGENOUS CONSULTATION

The Port Authority has reviewed the proposed works and determined that the Project may have the potential to adversely impact Aboriginal or Treaty rights.

Best effort was made to consult the following Indigenous groups:

- Musqueam Indian Band
- S'ólh Téméxw Stewardship Alliance (STSA)
- Squamish Nation
- Tsleil-Waututh Nation

The following consultation activities were conducted:

- Project notification letter and Project location map sent via email
- Comments provided by Indigenous groups via email were responded to via email

Below is a table summarizing comments received by the Port Authority and how they were considered as part of the project and environmental review:

Issue	Mitigations and Permit Conditions	Rationale
Impact of pile driving activities on marine mammals and fish.	Conditions no. 20 and 26 of the Permit require the Permit Holder to conduct work within the requirements of the <i>Fisheries Act</i> and conduct environmental monitoring of any pile driving for the Project occurring outside the least-risk fisheries window.	The Applicant has provided mitigations for pile-driving activities that limit the potential for adverse impacts to fish and marine mammals.

Based on the record of consultation, the Port Authority is of the view that the duty to consult has been met.

5 EXISTING POLICIES OR GUIDELINES

The Project area is designated as “Port Terminal” in the Port Authority Land Use Plan. The Project does not represent a change in use of the site; it supports the primary use under this designation, and is, therefore, compliant with the Land Use Plan.

6 NOTIFICATIONS

6.1 Public Engagement

To meet requirements of section 86 of the *Impact Assessment Act*, the Port Authority posted a description of the Project and notice of public participation to the Canadian Impact Assessment Registry to provide the public 30 calendar days to comment on the Project and provide community knowledge.

The comment period ran from January 5 to February 3, 2022. At the close of the 30 calendar day public comment period, no comments were received.

The proposed Project was assessed by the Port Authority to have minimal or no potential impacts to community interests in the surrounding area either during construction or once the project is completed. Therefore, no construction notification was required.

7 INFORMATION SOURCES

The Port Authority has relied upon the following sources of information in its review of the Project.

- Application form and materials submitted by the Applicant on December 16, 2021
- Project correspondence from December 16, 2021 to February 14, 2022

8 PROJECT AND ENVIRONMENTAL REVIEW DECISION

In completing the project and environmental review, the Port Authority has reviewed and taken into account relevant information available on the proposed project and has considered any adverse impact that the Project may have on the rights of Indigenous peoples, Indigenous knowledge, community knowledge, comments received from the public, and measures that would mitigate any significant adverse environmental effects of the Project. We conclude that with the implementation of proposed mitigation measures and conditions described in the project and environmental conditions section below, the Project is not likely to cause significant adverse environmental effects.

In completing the project and environmental review, the Port Authority concludes that with the implementation of proposed mitigation measures and conditions described in the project and environmental conditions section below, the Project has appropriately addressed all identified concerns.

Project Permit PER No. 21-199 is approved by:

ORIGINAL COPY SIGNED

February 22, 2022

**CHRIS BISHOP
MANAGER, PROJECT AND ENVIRONMENTAL
REVIEW**

DATE OF APPROVAL

9 PROJECT AND ENVIRONMENTAL CONDITIONS

The Port Authority has undertaken and completed a review of the Project in accordance with the *Canada Marine Act* and Section 5 of the Port Authorities Operations Regulations and, as applicable, Section 82 of the *Impact Assessment Act*.

If at any time Engineering and Maintenance (the “Permit Holder”) fails to comply with any of the project and environmental conditions set out in the project permit (the “Permit”) below, or if the Port Authority determines that the Permit Holder has provided any incomplete, incorrect or misleading information in relation to the Project, the Port Authority may, in its sole and absolute discretion, cancel its authorization for the Project or change the project and environmental conditions to which such authorization is subject.

Pursuant to Section 29 of the *Port Authorities Operations Regulations*, the Port Authority may also cancel its authorization for the Project, or change the project and environmental conditions to which such authorization is subject, if new information is made available to the Port Authority at any time in relation to the potential adverse environmental and other effects of the Project.

The following are the minimum conditions that must be followed by the Permit Holder to mitigate potential or foreseeable adverse environmental and other effects.

Port Authority Guidelines and Record Drawing Standards referenced in this document can be located at:

<https://www.portvancouver.com/permitting-and-reviews/per/project-and-environment-review-applicant/guidelines/>

No.	GENERAL CONDITIONS
1.	The Permit Holder must have a valid lease, licence, or access agreement for the Project site prior to accessing the Project site or commencing construction or any other physical activities on the Project site. This Permit shall in no way limit any of the Permit Holder's obligations, or the Port Authority's rights, under such lease, licence, or access agreement.
2.	The Permit Holder shall at all times and in all respects, comply with and abide by all applicable statutes, laws, regulations and orders from time to time in force and effect, including all applicable environmental, labour and safety laws and regulations.
3.	This Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon this Permit for any purpose other than the fact that the Port Authority has permitted the construction of the Project, in accordance with the terms and conditions of this Permit.
4.	The Permit Holder shall indemnify and save harmless the Port Authority in respect of all claims, losses, costs, fines, penalties or other liabilities, including legal fees, arising out of: (a) any bodily injury or death, property damage or any loss or damage arising out of or in any way connected with the Project; and (b) any breach by the Permit Holder of its obligations under this Permit.

5.	The Permit Holder is responsible for locating all existing site services and utilities including any located underground. The Permit Holder is responsible for repair or replacement of any damage to existing site services and utilities, to the satisfaction of the Port Authority, that result from construction and operation of the Project.	
6.	The Permit Holder shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with applicable standards and specifications set out in the sections above entitled Project Description and Information Sources. The Permit Holder shall not carry out any other physical activities unless expressly authorized by the Port Authority.	
7.	The Permit Holder shall cooperate fully with the Port Authority in respect of any review by the Port Authority of the Permit Holder's compliance with this Permit, including providing information and documentation in a timely manner, as required by the Port Authority. The Permit Holder is solely responsible for demonstrating the Permit Holder's compliance with this Permit.	
8.	The Permit Holder shall review the Permit with all employees, agents, contractors, licensees and invitees working on the Project site, prior to such parties participating in any construction or other physical activities on the Project site. The Permit Holder shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with this Permit.	
9.	The Permit Holder shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.	
10.	Unless otherwise specified, the Permit Holder shall provide plans, documents, and notices required under this Permit to the following email address: per@portvancouver.com and referencing PER No.21-199 .	
11.	Unless otherwise specified, all plans, schedules, and other Project-related documentation that the Permit Holder is required to provide under this Permit, and any subsequent updates, must be to the Port Authority's satisfaction.	
12.	The Port Authority shall have unfettered access to environmental compliance documentation and the Project site at all times during construction without notice.	
13.	The Permit Holder must maintain and retain any records associated with, or produced by, actions or activities undertaken to achieve compliance or that indicate non-compliance with project permit conditions. These records must be made available at the request of the Port Authority.	
CONDITIONS – PRIOR TO COMMENCING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
14.	The Permit Holder shall submit Issued For Construction Drawings for proposed works in accordance with the Port Authority's Record Drawing Standards. These drawings shall be signed and sealed and approved for construction by a professional engineer licensed to practice in the Province of British Columbia. In addition, these drawings shall be submitted in both AutoCAD and PDF format and shall be named according to the record drawing index numbering system set out at Section 2.10 of the Port Authority's Record Drawing Standards.	5 business days before commencing construction or any physical activities
15.	The Permit Holder shall have in place a spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances. Appropriate spill containment and clean-up supplies shall be available on the Project site at all times and all personnel working on the Project shall be trained on the spill prevention, containment and clean-up plan. The Permit Holder shall carry out the Project in accordance with the spill prevention, containment and clean-up plan.	Before commencing construction or any physical activities

16.	Prior to the commencement of any vessel-related activities, the Permit Holder shall contact Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS), (email: NAVWARN.MCTSPrinceRupert@innav.gc.ca ; Phone: 250-627-3070) regarding the issuance of a Navigational Warning (NAVWARN) to advise the marine community of potential hazards associated with the Project.	As per Coast Guard requirements
17.	The Permit Holder shall submit a marine construction and staging plan to the Port Authority's satisfaction, which includes: <ol style="list-style-type: none"> identification of navigation related hazards and risk mitigation measures staging and construction areas dates and hours of operations description of activities taking place participating equipment and vessels (dimensions must be included) method of preferred communication with marine users method of communicating updates to relevant marine users special requests and/or additional information <p>The Permit Holder shall carry out the Project in accordance with the marine construction and staging plan, including any subsequent updates made to the Port Authority's satisfaction.</p>	15 business days prior to commencing construction activities
CONDITIONS – DURING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
18.	All general construction and physical activities related to the Project shall be conducted from Monday to Saturday between the hours of 7:00 am and 8:00 pm . No construction and physical activities shall take place on Sundays or holidays. These hours shall not be modified without prior approval of the Port Authority. To request permission to conduct activities outside these hours, the Permit Holder must submit a written request no less than 30 business days prior to the desired start date.	
19.	The Permit Holder shall notify the Port Authority within two business days of any complaints received from the community and stakeholders during construction and indicate how the Permit Holder has responded to such complaints.	
20.	Without limiting the generality of permit condition #2, the Permit Holder shall not, directly or indirectly: <ol style="list-style-type: none"> deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36 of the <i>Fisheries Act</i>; or adversely affect fish or fish habitat in a manner contrary to Section 35 of the <i>Fisheries Act</i>. 	
21.	Without limiting the generality of permit condition #2, the Permit Holder shall not release chlorinated water, paint chips, cleaning products, coatings, or other potentially deleterious materials to the aquatic environment. The objective shall be 100% containment of chlorinated water and other residues.	
22.	The Permit Holder shall conduct all activities involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials in a manner that shall not deposit sediments, debris, concrete (cured or uncured), and concrete fines to the aquatic environment, either directly or indirectly. Water that has contacted uncured or partly cured concrete or Portland cement or lime-containing construction materials (such as the water that may be used for exposed aggregate wash-off, wet curing, equipment and truck washing) shall not be permitted to enter the aquatic environment. The Permit Holder shall provide containment facilities at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment, as required.	

23.	The Permit Holder shall contain and collect debris and waste material in the immediate working area within the Project site. The Permit Holder shall dispose of waste material at suitable upland locations and maintain records of off-site disposal.
24.	The Permit Holder shall immediately cease work and notify the Port Authority if the Permit Holder has reasonable grounds to believe that the Project has harmed fish or fish habitat, including observation of distressed, injured, or dead fish. The Permit Holder shall not resume work until authorized by the Port Authority.
25.	The Permit Holder shall maintain equipment in good mechanical condition and free of fluid leaks, invasive species, and noxious weeds.
26.	<p>Vibratory pile installation is recommended as the primary method used for pile installation works. If impact pile driving is necessary, the following additional mitigation measures shall be implemented:</p> <ul style="list-style-type: none"> a) Conduct hydroacoustic monitoring during impact pile driving to monitor underwater sound at approximately 10 m away from the sound source b) Install and use an effective sound attenuation device (e.g., bubble curtain) to reduce peak sound pressure levels to below 206 dB re: 1 µPa and a SELcum of 186 dB re: µPa²s outside of the sound attenuation device to protect fish c) Establish a cetacean exclusion zone (e.g., perimeter around the noise source) prior to impact pile driving where sound levels are not to exceed 160 dB RMS re: 1 µPa at the edge of the cetacean exclusion zone during impact pile driving. Monitor for cetaceans within the cetacean exclusion zone for at least 30 minutes prior to the start of impact pile driving. If a cetacean enters the cetacean exclusion zone, temporarily suspend impact pile driving until the individual has left the exclusion zone or has not been sighted for 30 minutes d) The use of a soft start procedure shall be implemented where the impact energy is gradually increased over a 10-minute period. The soft start procedure shall also be implemented any time after there is a break of 30 minutes or more during impact pile driving <p>If hydroacoustic monitoring indicates sound levels in excess of the abovementioned thresholds, impact pile driving shall cease and only resume after additional mitigation measures are implemented to effectively reduce sound levels below the above-mentioned thresholds.</p> <p>The above measures shall also be implemented for vibratory pile installation conducted between March 1 and August 15, inclusive, or if multiple piles are installed simultaneously, unless five consecutive days of hydroacoustic monitoring demonstrates, to the Port Authority's satisfaction, that the above thresholds are not exceeded.</p>
27.	The Permit Holder shall cap any exposed hollow pipe piles to prevent wildlife entrapment.
28.	<p>During any vessel-related activities, the Permit Holder shall:</p> <ul style="list-style-type: none"> a) Position vessels and equipment associated with the Project in such a manner so as not to obstruct line of sight to navigational aids or markers b) Exhibit the appropriate lights and day shapes at all times c) Monitor the VHF channel used for MCTS communications in the respective area at all times and participate as necessary d) Be familiar with vessel movements in areas affected by the Project e) Plan and execute the Project in a manner that will not impede navigation or interfere with vessel operations f) During night hours, unless working 24 hours per day, ensure that the rig and associated equipment is moored outside the navigation channel and lit in accordance with applicable regulations

	CONDITIONS – UPON COMPLETION	SUBMISSION TIMING (Business Days)
29.	The Permit Holder shall notify the Port Authority upon completion of the Project.	Upon substantial completion
30.	The Permit Holder shall provide record drawings, including a Project site plan that clearly identifies the location of works, in both AutoCAD and PDF format (with an Engineers stamp where applicable) in accordance with the Port Authority's Record Drawing Standards. All drawings shall be named according to the record drawing index numbering system set out at Section 2.10 of the Port Authority's Record Drawing Standards.	Within 40 business days of completion
31.	The Permit Holder shall send record drawings of newly constructed and/or demolished marine works to the Database Information Office of the Canadian Hydrographic Service (250-363-6360 or chsdatacentre@dfo-mpo.gc.ca) to arrange for the relevant Canadian Hydrographic Service charts to be updated. The Port Authority's Marine Operations department shall be copied on the request (navigation.review@portvancouver.com).	Upon substantial completion
The Port Authority reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to the Port Authority.		
LENGTH OF PERMIT VALIDITY		
The Project must be completed no later than March 31, 2024 (the "Expiry Date").		
AMENDMENTS		
<ul style="list-style-type: none"> Details of any material proposed changes to the Project, including days and hours when construction and any physical activities will be conducted, must be submitted to the Port Authority for consideration of an amendment to this Permit. For an extension to the Expiry Date, the Permit Holder must apply in writing to the Port Authority no later than 40 business prior to that date. <p>Failure to apply for an extension as required may, at the sole discretion of the Port Authority, result in termination of this Permit.</p>		

CONTACT INFORMATION

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After normal business hours:

In the event of any land or marine construction incidents or concerns related to works carried out on-site under this permit, please contact the 24/7 Port Operations Centre 604-665-9086. In the event of an emergency requiring 'First Responders', please call 911 first.