



PORT of
vancouver

Vancouver Fraser
Port Authority

Roberts Bank Terminal 2 Project

Designated Project Description

September 24, 2021

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Acronyms and Abbreviations

ha	Hectares
km	Kilometres
m	Metres
Project	Roberts Bank Terminal 2 Project
RBT2	Roberts Bank Terminal
TEU	Twenty-foot equivalent unit
UTM	Universal Transverse Mercator

Definitions

Berth	A designated location where vessels are moored in a port.
Berth pocket	Dredged area alongside the terminal wharf used for mooring container vessels as they are loaded and unloaded.
Caisson	Prefabricated concrete hollow boxes that, in the case of the project, will be tied together with a concrete beam and filled with ballast rock to form a foundation for the wharf.
Caisson trench	A portion of the dredge basin that will form the foundation for the placement of concrete caissons. This area of the dredge basin will be permanently covered by the wharf.
Containment dyke	A dyke constructed in the marine environment to contain the fill used for land development within an enclosed area.
Marine approach area	Angled dredged areas at either end of the berth pocket, for safe navigation of container vessels as they approach or depart from the berth.
Mooring dolphin	A piled marine structure with a mooring bollard for securing mooring lines from the ship. (A mooring bollard is a short vertical post on a wharf, or mooring dolphin platform, used for securing mooring lines from ships).
Rail intermodal yard	Facility/area capable of handling and transferring cargo between terminal and rail modes of transport.

1. Project description and location

- 1.1 The Roberts Bank Terminal 2 Project (RBT2 or Project) is a container terminal at Roberts Bank in Delta, B.C. and proximate to Tsawwassen First Nation (Figure 1). The project is located in the unceded territory of local Indigenous groups. The Project is comprised of the construction and operation of the following components:
 - a) A marine container terminal with throughput capacity of up to 2.4 million twenty-foot equivalent (TEU) containers annually;
 - b) A widened Roberts Bank causeway to accommodate additional road and rail infrastructure to link existing road and rail networks to the marine terminal; and
 - c) An expanded tug basin to accommodate additional tugs.
- 1.2 The location and orientation of these project components within the Project Area are shown on **Figure 1**.

2. Project components and activities

- 2.1 The total footprint area for the Project, including land and marine areas to be occupied by Project components is up to approximately 168.1 hectares (ha), and is comprised of the following components and activities:
- 2.2 **Marine terminal**
 - a) The marine container terminal up to approximately 1,700 m long and up to approximately 633 m wide, located as shown on **Figure 1** and **Figure 2**, consisting of the following sub-components:
 - i. Wharf structure and mooring dolphin;
 - ii. Container storage yard;
 - iii. Rail intermodal yards; and
 - iv. Ancillary systems and support facilities, including truck gate facilities, buildings, security facilities, and utility infrastructure (including electrical power and lighting, telecommunications, water, sanitary and storm drainage).
 - b) The total marine terminal footprint is up to approximately 119.7 ha, including the terminal land mass with riprap protected slopes, wharf structure, as well as the berth pocket and marine approach area.
- 2.3 **Widened causeway**
 - a) Widening of the existing Roberts Bank causeway along its full length (approximately 5.5 km), up to approximately 140 m wide, located as shown on **Figure 2**, to provide additional railway, road, and utility infrastructure.
 - b) The total footprint of the widened causeway component is up to approximately 45.3 ha, including widened land mass with riprap protected slopes, overpass and road tie-ins on the existing causeway, as well as emergency access road tie-in and rail tie-ins on the mainland.

- c) The main infrastructure on the widened causeway consists of:
 - i. **Railway infrastructure**, including rail yards and rail tracks connecting to the British Columbia Railway rail network on the mainland and the marine terminal. Rail infrastructure extends eastward of the end of the causeway up to approximately 450 m to connect to the existing rail network;
 - ii. **Road infrastructure**, including an overpass, an access road connecting the overpass to the existing Roberts Bank Way North and the marine terminal, an emergency access road along the entire causeway length connects to the existing road network at the east end of the causeway, and a vehicle access and control system gate; and
 - iii. **Utility infrastructure**, including electrical power and lighting, telecommunications, water and storm drainage.

2.4 Expanded tug basin

- a) Expansion of the existing tug basin to accommodate additional tugs. The total marine footprint for the tug basin expansion is up to approximately 3.1 ha.
- b) The main infrastructure includes access ramps, floating pontoon wharves anchored by piles, and piles to aid in navigation.

2.5 Project construction activities

- a) Preparation of the site for project construction activities.
- b) Construction of the marine terminal, including land development; dredging in the caisson trench, berth pocket, and marine approach area; densification as required for construction of the marine terminal footprint; and installation of infrastructure.
- c) Widening of the existing causeway, including land development, densification as required for the widened causeway, and installation of infrastructure.
- d) Expansion and alteration of the existing tug basin, including dredging and installation of wharves.
- e) Construction-related marine transportation within the areas for which the Vancouver Fraser Port Authority has jurisdiction.
- f) Construction-related road and rail transportation within the Project Area (shown in **Figure 1**)

2.6 Temporary construction infrastructure

- a) Barge ramps, and associated support piles, for offloading fill and rock material from barges during Project construction;
- b) Submarine pipelines to discharge supernatant water (i.e., sediment laden water from dredge material and fill placed within the marine terminal containment basins) to outfall locations seaward of the containment dykes;
- c) Onsite temporary facilities; and
- d) Staging and stockpile laydown areas.

2.7 Project operation activities

- a) Commissioning of the marine terminal to prepare for commercial operation.

- b) Container handling on the marine terminal, and associated road and rail activities on the marine terminal and causeway.
- c) Marine transportation within the areas for which the Vancouver Fraser Port Authority has jurisdiction, including approach, berthing, unberthing, and departure of container vessels, and associated tug operations.
- d) Maintenance dredging during operations, if required to maintain safe navigation, including in the berth pocket, marine approach areas, and expanded tug basin.

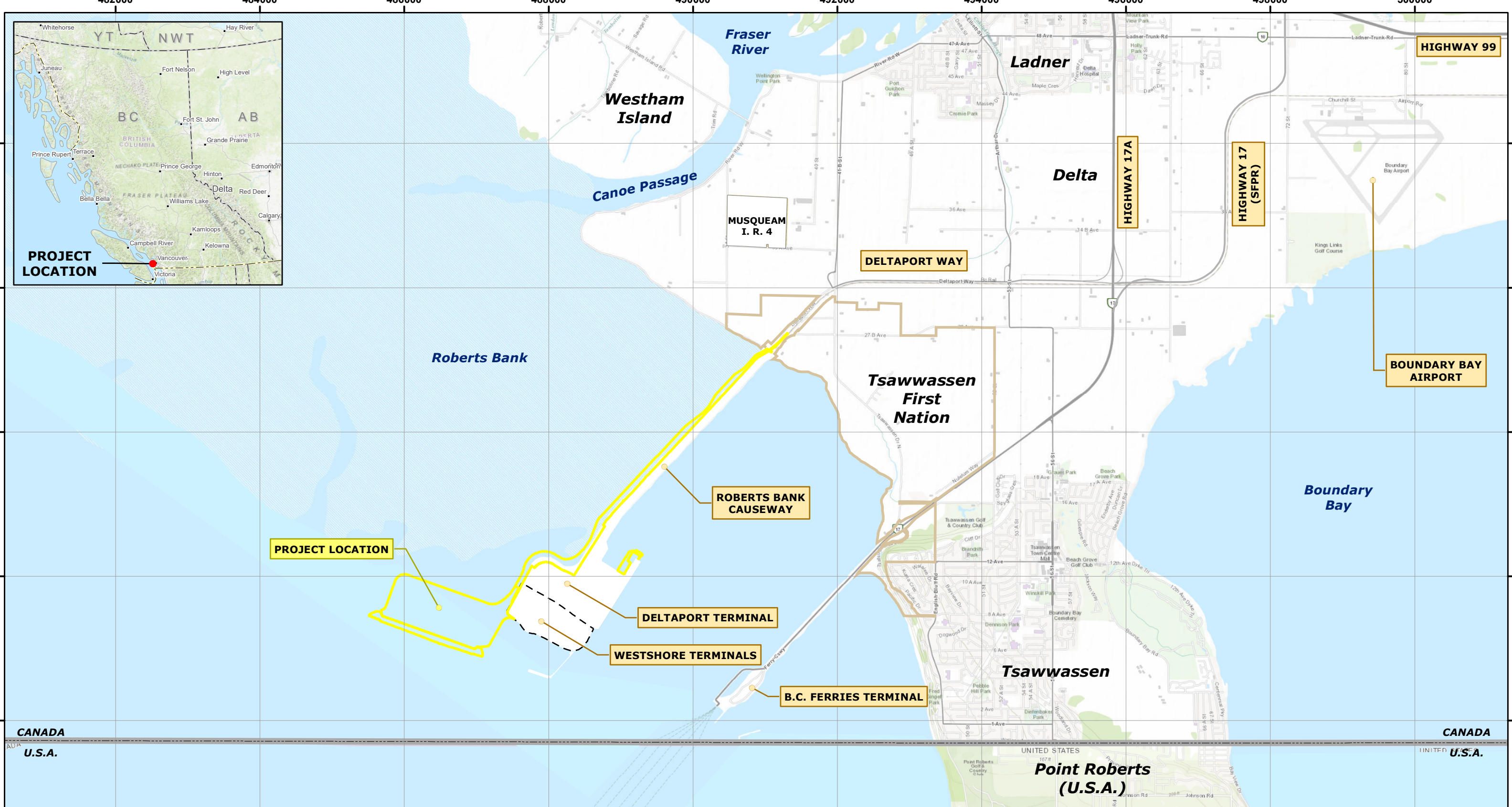
3. Marine shipping incidental to the Project

3.1 Marine shipping activities outside of the areas for which the Vancouver Fraser Port Authority has jurisdiction, including project-associated container ships that are incidental to the Project, transiting the Juan De Fuca Strait, Haro Strait, Boundary Passage, and Strait of Georgia (as shown on Figure 3).

4. List of Figures

- Project overview – Figure 1
- Project components – Figure 2
- Incidental marine shipping area – Figure 3

Appendix A: Figures



PROJECT LOCATION

ROBERTS BANK CAUSEWAY

DELTAPOST TERMINAL

WESTSHORE TERMINALS

B.C. FERRIES TERMINAL

HIGHWAY 99

HIGHWAY 17A

HIGHWAY 17 (SFPR)

BOUNDARY BAY AIRPORT

CANADA U.S.A. UNITED STATES U.S.A.

Legend
 [Yellow outline] BOUNDARY OF PROJECT AREA (PROJECT COMPONENTS)
 [Dashed line] U.S.A.-CANADA BORDER

0 0.5 1
 Kilometres
 1:50,000
 NAD 1983 UTM Zone 10N



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Stantec Consulting Ltd.

BCGS MAP SHEET:
92G.005

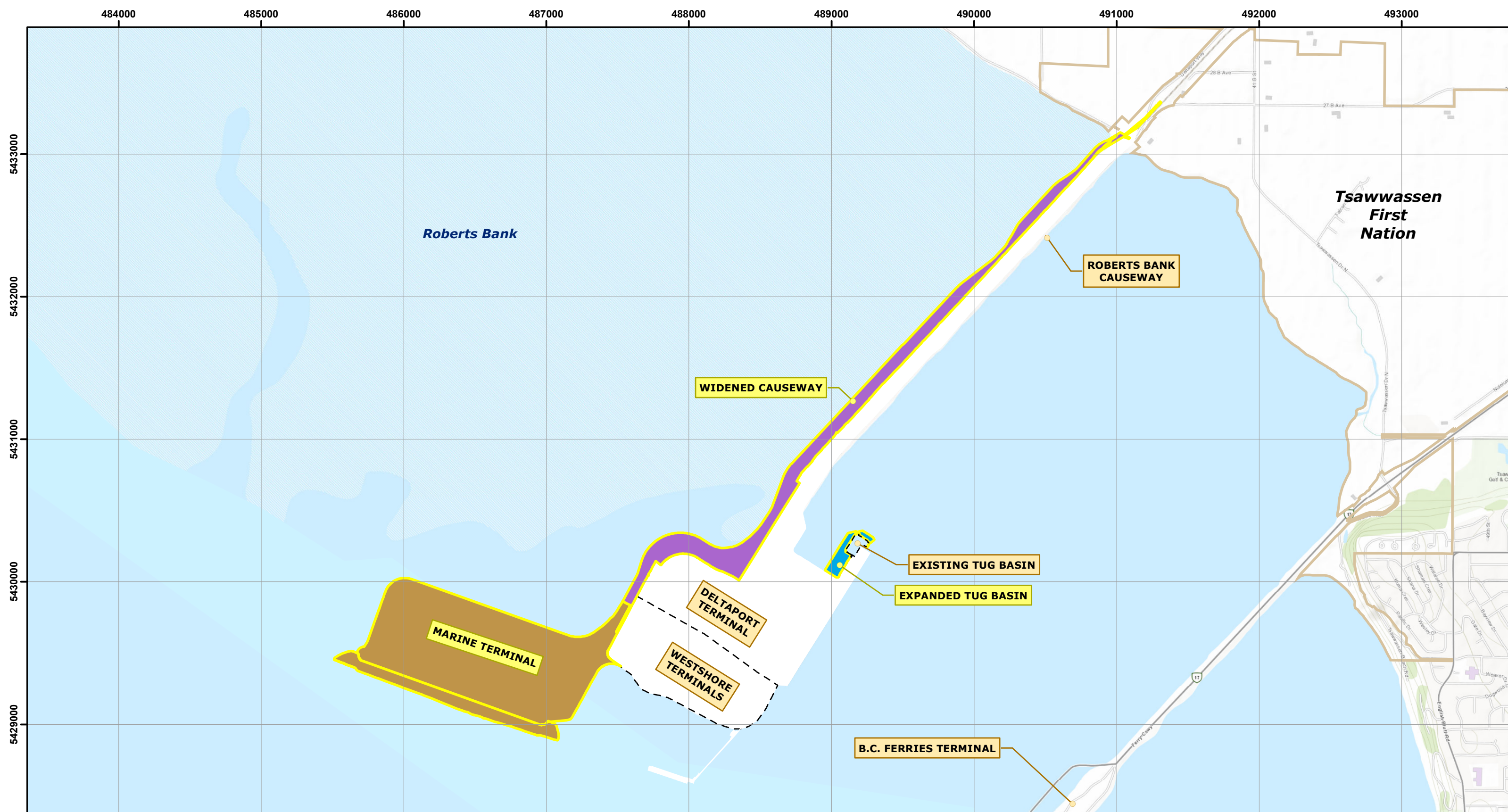
ROBERTS BANK TERMINAL 2

PROJECT OVERVIEW

DATE:
09/17/2021

1

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Legend
 BOUNDARY OF PROJECT AREA (PROJECT COMPONENTS)

PROJECT COMPONENT
 EXISTING LANDMARK

PROJECT COMPONENT
 MARINE TERMINAL
 WIDENED CAUSEWAY
 EXPANDED TUG BASIN

0 0.25 0.5
 Kilometres
 1:25,000
 NAD 1983 UTM Zone 10N



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 BCGS MAP SHEET:
92G.005

ROBERTS BANK TERMINAL 2
 PROJECT COMPONENTS
 DATE: **09/17/2021**
 FIG No. **2**

Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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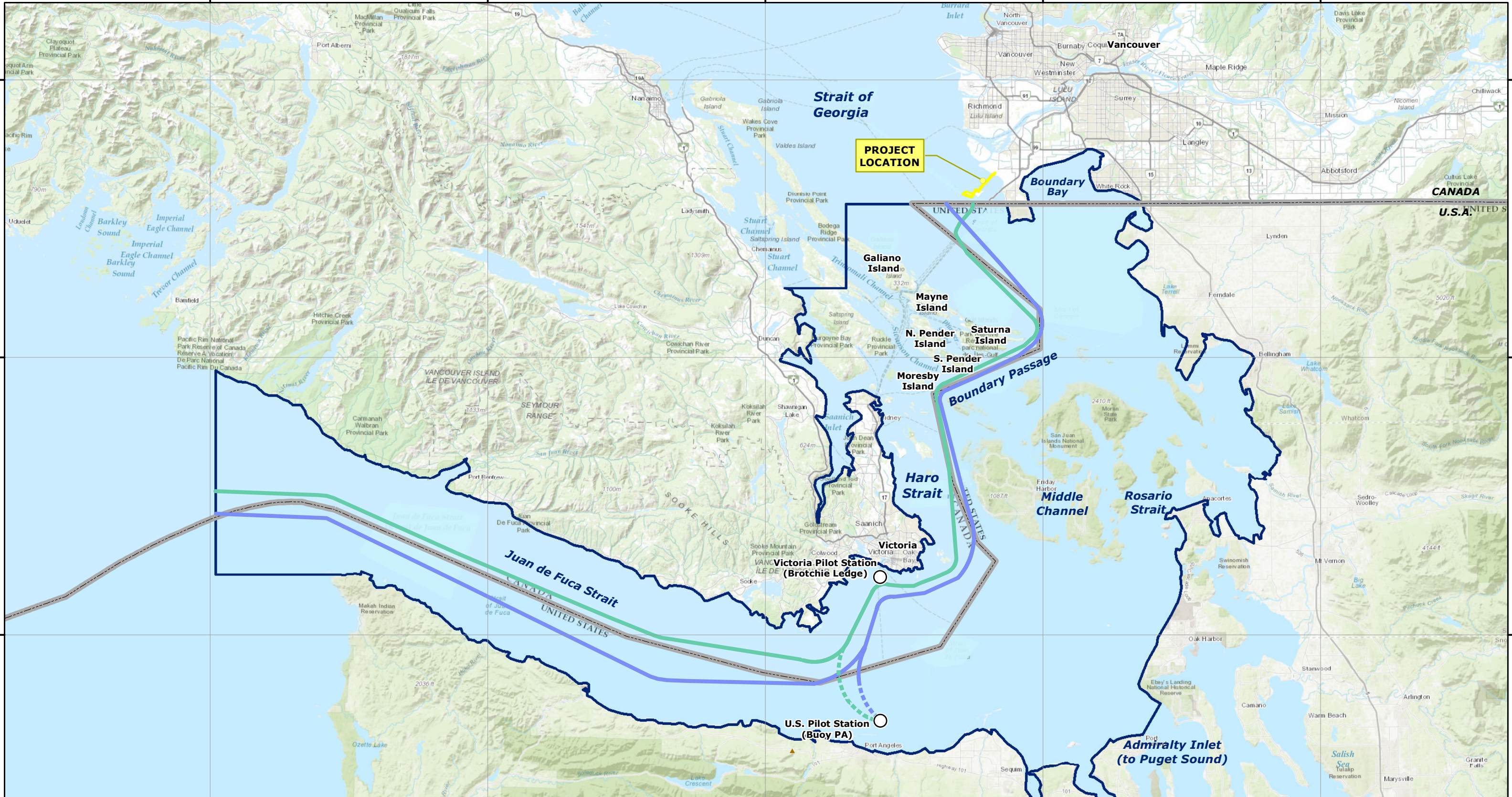
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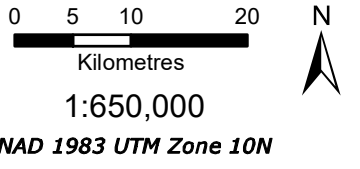
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- Legend**
- BOUNDARY OF PROJECT AREA (PROJECT COMPONENTS)
 - U.S.A.-CANADA BORDER
 - RBT2 ASSOCIATED SHIPPING ROUTE**
 - INBOUND FROM US PORTS
 - OUTBOUND
 - OUTBOUND TO US PORTS
 - MARINE SHIPPING AREA
 - PILOT STATION



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ROBERTS BANK TERMINAL 2

INCIDENTAL MARINE SHIPPING AREA

DATE: **09/17/2021**

FIG No. **3**

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