

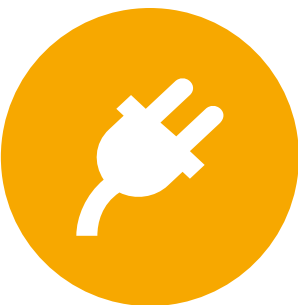
Island Class Key Features



Carries 47 vehicles and 300-450 passengers and crew depending on configuration



Battery-hybrid power systems improve efficiency and reduce emissions



Flexibility for full electric operation in the future



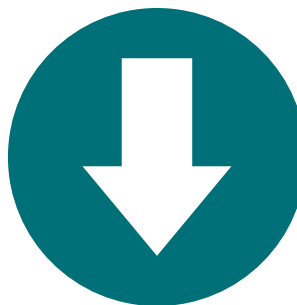
Twin propellers reduce underwater radiated noise



Completely outfitted with LED lighting



Heat recovery system uses waste thermal energy to heat vessel



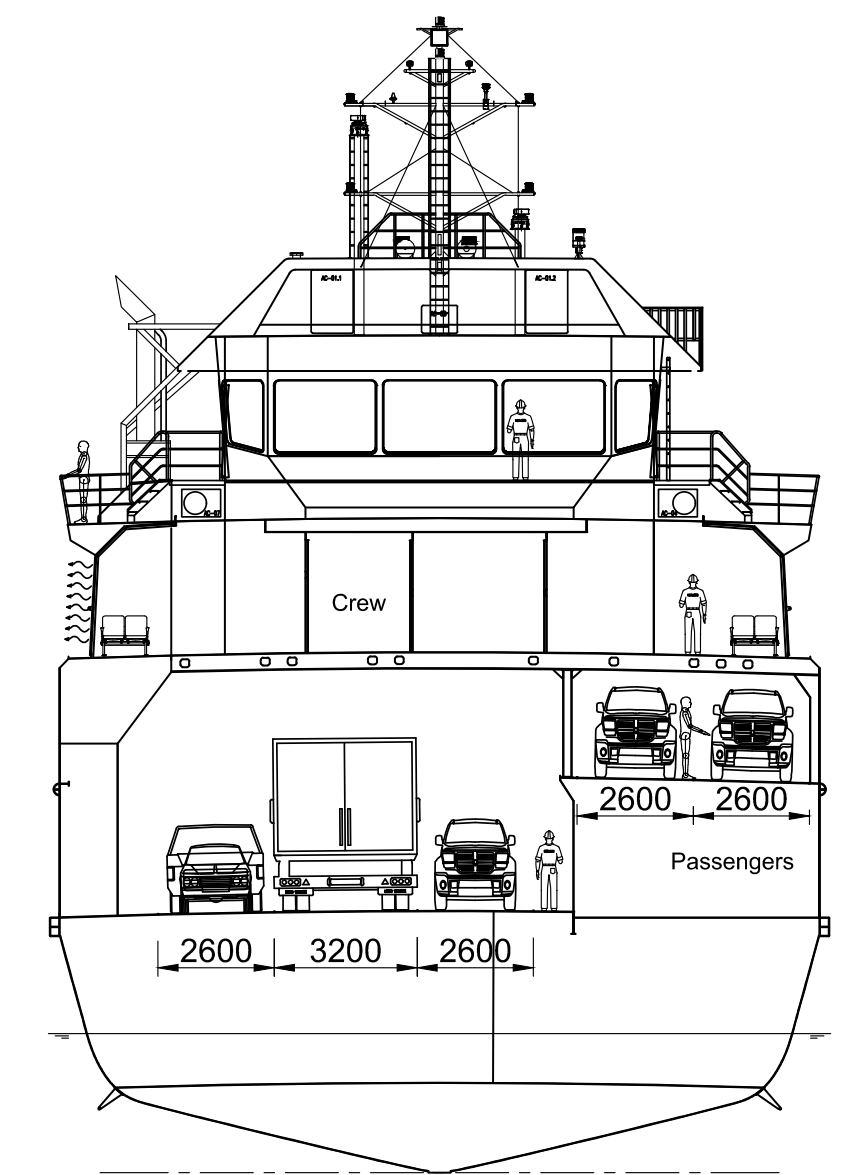
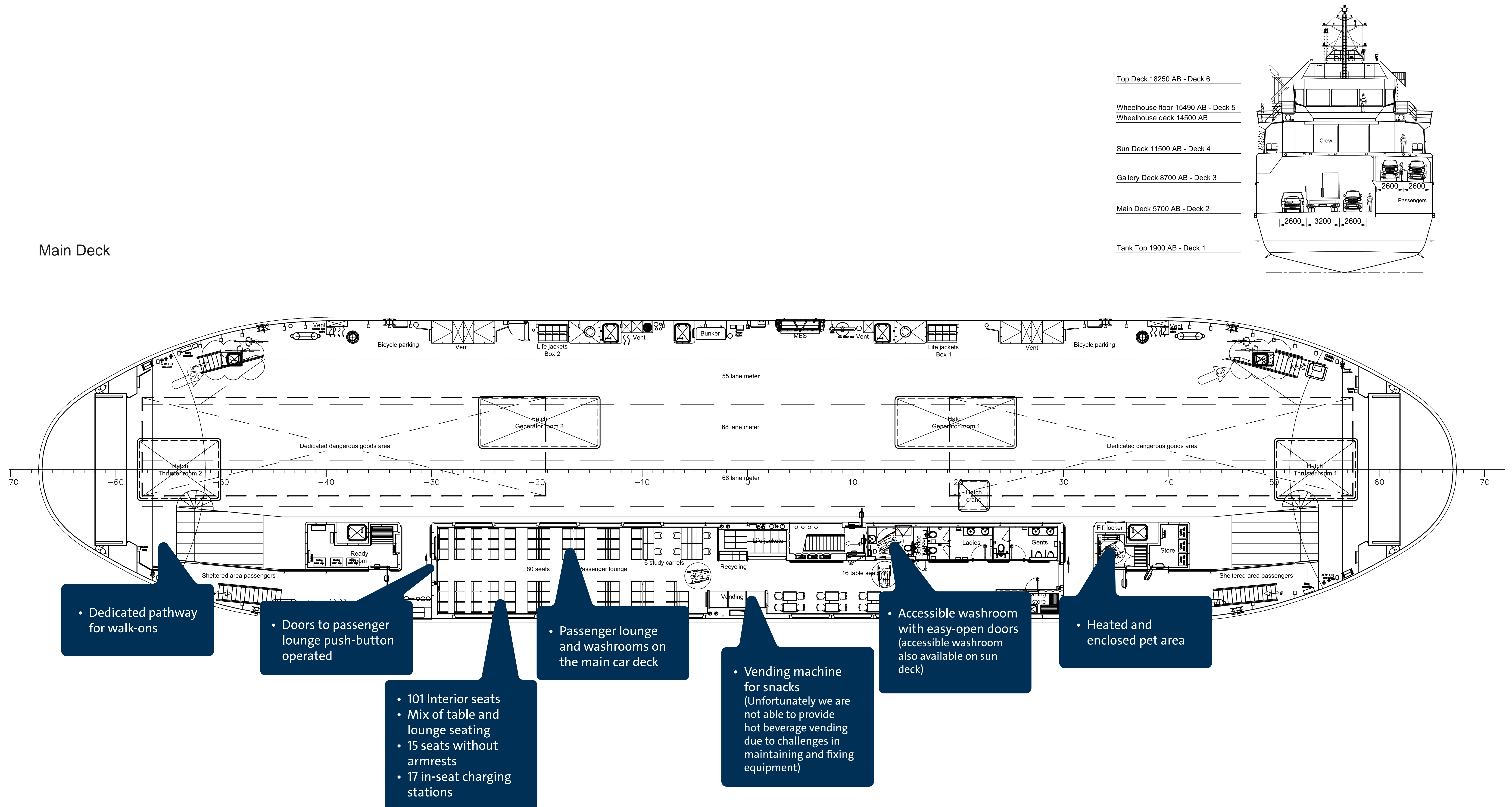
Low friction and biofouling resistant hull coating reduces fuel consumption



Exhaust system reduces NOx emissions through selective catalytic reduction

Island Class Layout

Main Deck



WELCOME

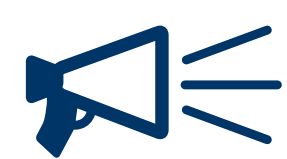
PUBLIC INFORMATION SESSION

Gabriola Island
&
Nanaimo Harbour
Ferry Terminals Update

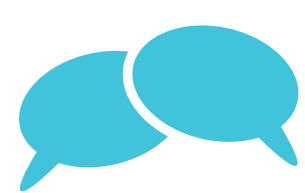
February 26 & 27, 2020

Introduction

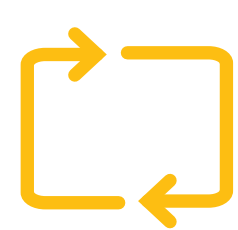
Purpose of this Information Session



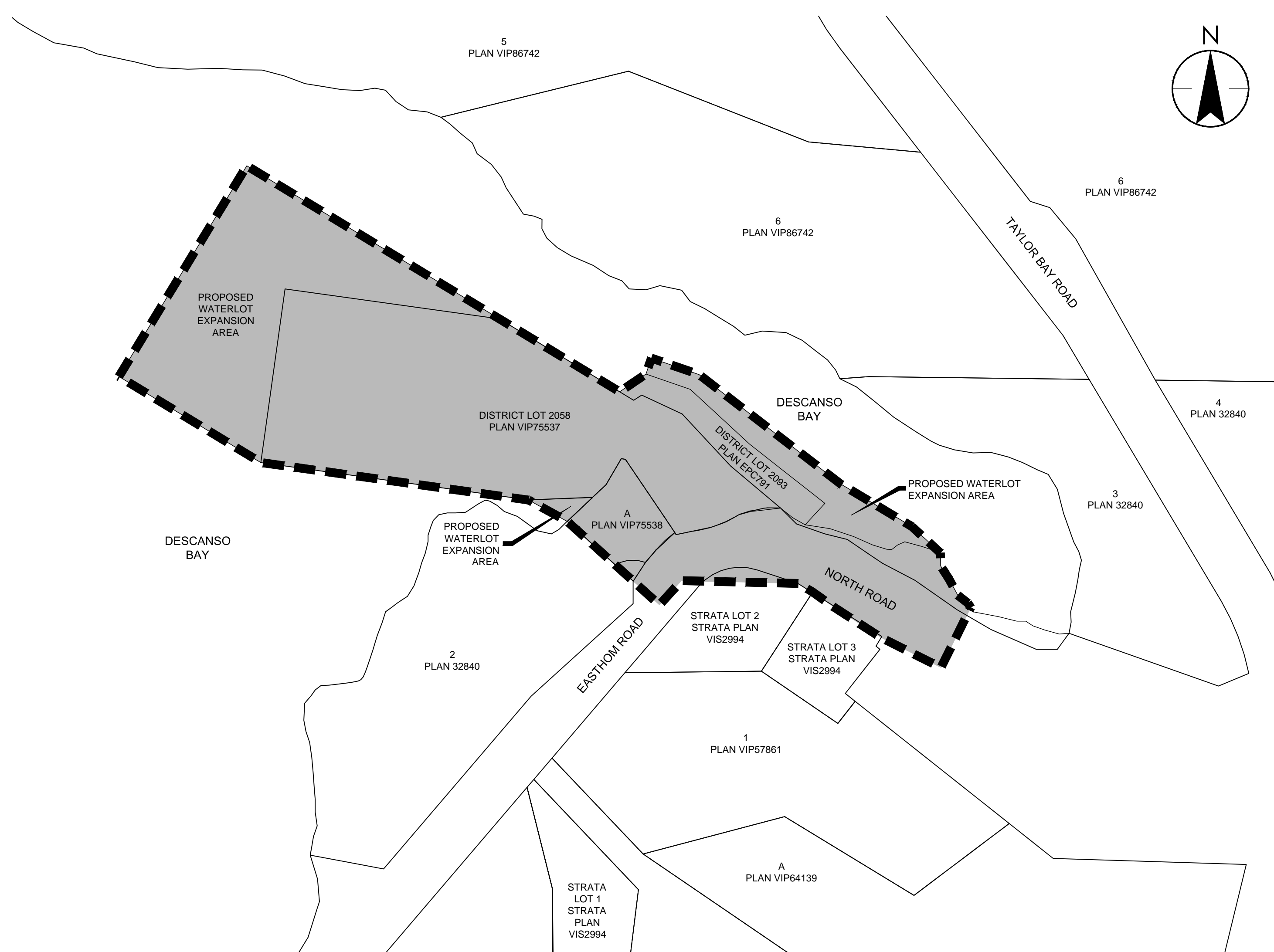
INFORM you about potential amendments to the Gabriola Official Community Plan (OCP) and Land Use Bylaws (LUB), the planning process, and how to get involved and provide input



SHARE information about the long-term implementation of the Terminal Development Plan (TDP) for the Descanso Bay, Gabriola Island Terminal and information on the new Island Class vessels which will serve this route in 2022



GAIN FEEDBACK from the community on the draft bylaws that will be the subject of a Public Hearing on May 14, 2020



Format of the Event

- Amendments to the text and maps of the Gabriola Official Community Plan and Land Use Bylaws are required to allow the long-term implementation of a new Terminal Development Plan for marine infrastructure and upland areas at the Descanso Bay, Gabriola Island Ferry Terminal.
- Please note that the focus is on the changes to the Gabriola Official Community Plan and Land Use Bylaws. The future terminal development concept is also presented which will be implemented in phases over the long-term.
- Posters explain the proposal and the process for making amendments to the Official Community Plan and Land Use Bylaws.
- Staff from BC Ferries and Stantec consulting will be on hand to discuss your questions and listen to your comments.

Official Community Plan Bylaw Amendment

Existing Text

Water Transportation Policies

- c) A major ferry terminal on Gabriola to provide service to Vancouver Island and/or a Lower Mainland destination shall be strongly opposed as it is inconsistent with the objectives and policies of this plan.*
- e) Maintenance of the present ferry terminal sites on the Gabriola and the Nanaimo sides is strongly supported.*

These sections should be combined and re-written in a positive statement to (1) designate the BC Ferry terminal at Descanso Bay as a ferry terminal and (2) reinforce the type and level of service identified in the TDP to appropriately service Gabriola’s residents, visitors and businesses.

Existing Text

Water Transportation Advocacy Policies

- g) The BC Ferry Corporation shall be requested to ensure that changes to the ferry service involves consultation with the local community.*
- h) The following issues shall be discussed with the BC Ferry Corporation:*
- i. the scheduling of a late evening weekend ferry;*
 - ii. the provision of parking at the Gabriola ferry terminal;*
 - iii. safe pedestrian routes to the Gabriola ferry terminal;*
 - iv. the scheduling of the ferry with the Nanaimo public transit service;*
 - v. the establishment of incentives for foot-passengers.*
- i) The BC Ferry Corporation shall be requested to:*
- i. consult with the Trust Committee and public, prior to giving consideration to any major alteration to the ferry service to Gabriola*
 - ii. continue to provide an adequate level of service for the needs of residents*
 - iii. ensure all vessels and associated upland facilities meet the standards of the Ministries of Health and Environment, Lands and Parks.*

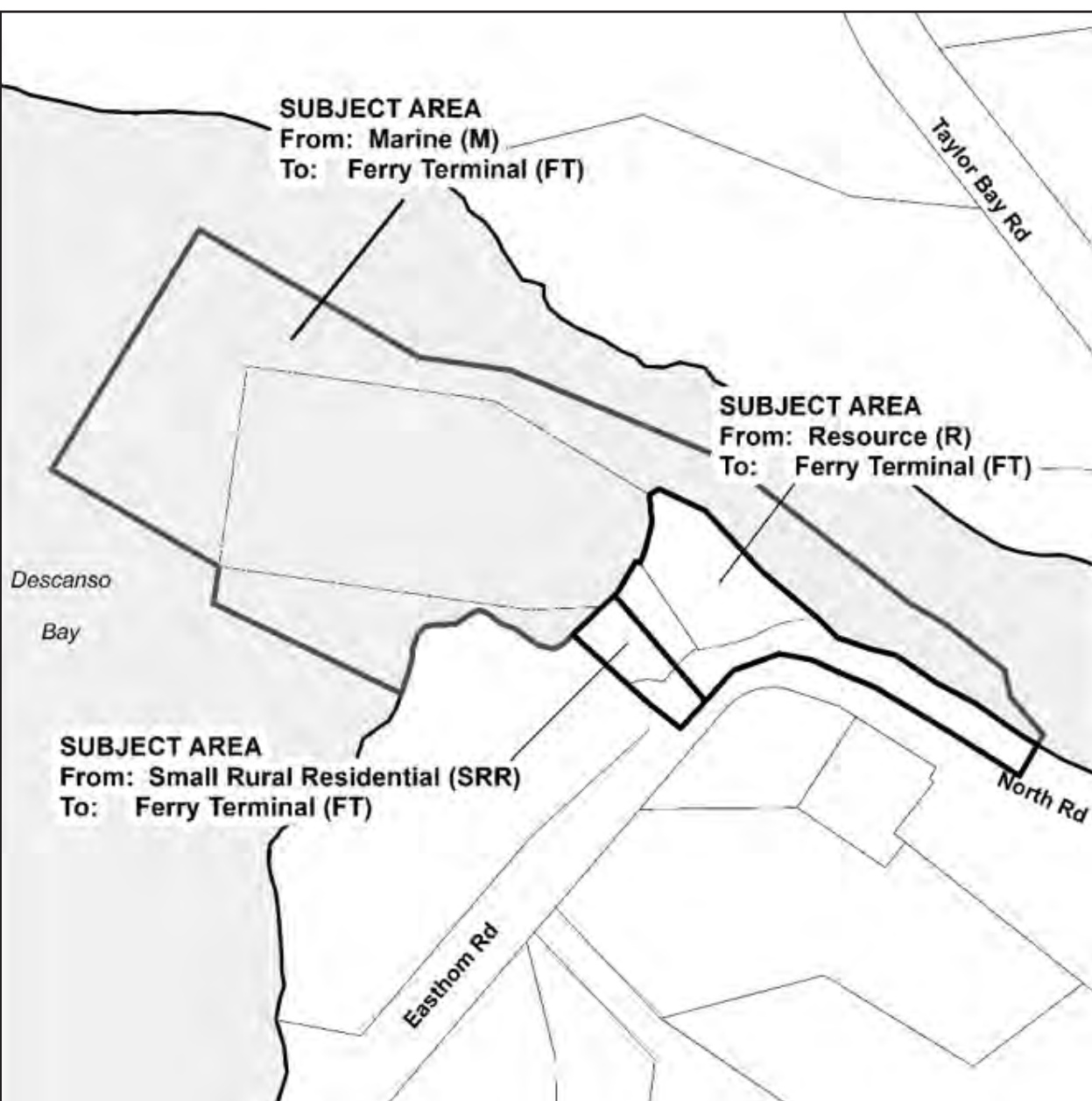
Proposed Text

In addition to some ‘housekeeping’ changes, delete subsections c) and e) of the Water Transportation Policies in Section 7.2 of the OCP to be replaced with the following:

The ferry terminal at Descanso Bay operated by British Columbia Ferry Services Inc. provides an essential transportation service for the Gabriola Island community and visitors to and from Vancouver Island. Upgrading of the ferry terminal is strongly supported to improve the overall customer experience.

The ferry terminal and adjacent marine area in Descanso Bay shall be subject to a Development Permit Area established for the protection of the natural environment, protection of development from hazardous conditions, regulation of the form and character of commercial development and promotion of energy and water conservation and greenhouse gas emission reduction.

Ferry Terminal zoning shall regulate permitted uses, building and structures, signage and parking.



Proposed Text

What is needed is a positive statement, appropriate for an OCP, about BC Ferries working with the Islands Trust and residents and businesses over time to implement the TDP to ensure appropriate levels of service in support of community objectives.

Delete subsections g), h) and i) of the Water Transportation Advocacy Policies in Section 7.2 of the OCP to be replaced with the following:

f) British Columbia Ferry Services Inc. should continue to engage key stakeholders including the Islands Trust, Ministry of Transportation and Infrastructure, customers and the Ferry Advisory Committee on implementing the Terminal Development Plan for the ferry terminal at Descanso Bay.

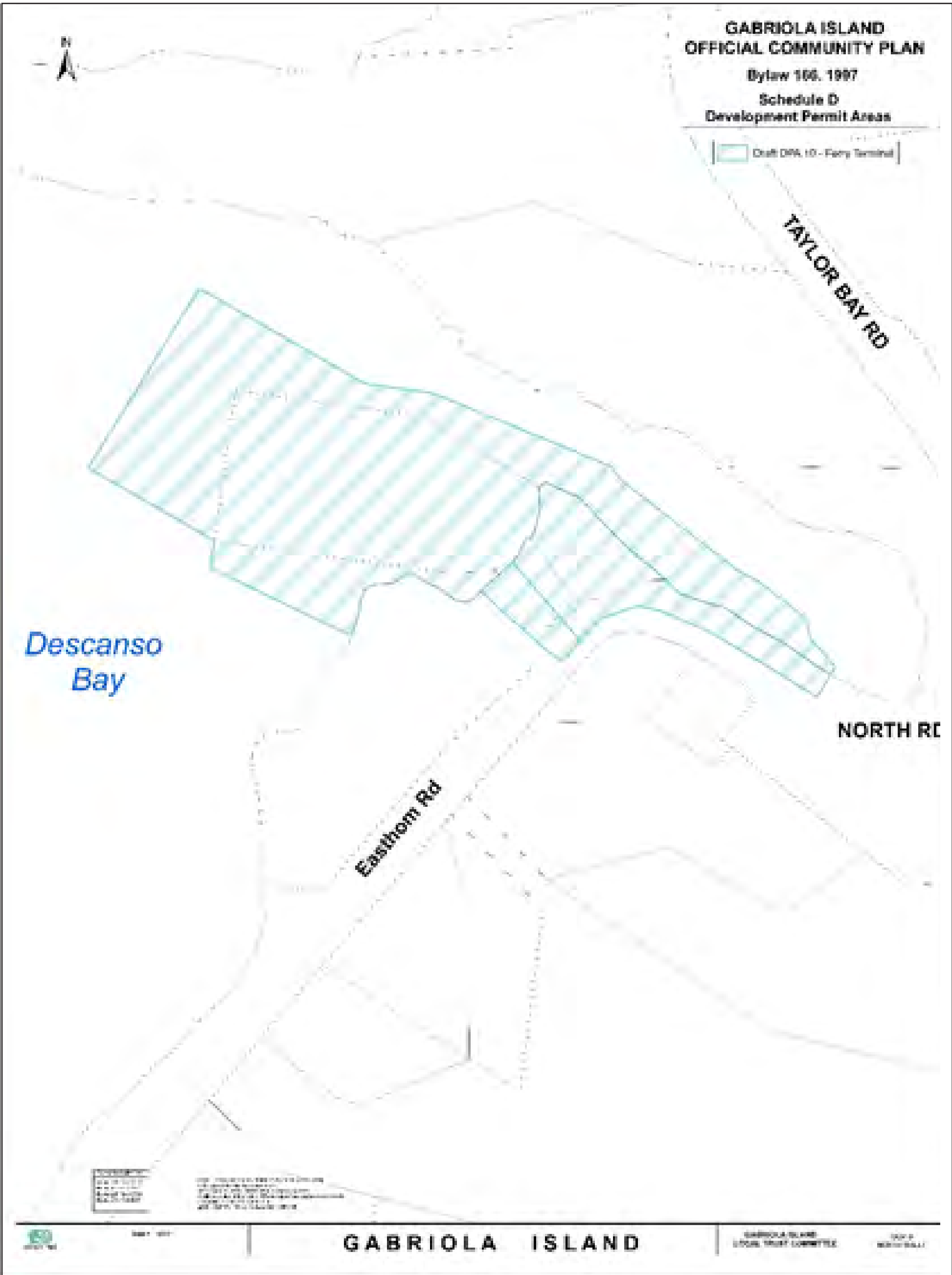
Official Community Plan Bylaw

New Development Permit Area DP10

As part of the OCP bylaw a new Development Permit Area has also been created that will apply to the ferry terminal.

OCP Bylaw is to be amended as follows:

9.5 Development Permits to Establish Objectives for the Protection of the Natural Environment, Protection of Development from Hazardous Conditions, Form and Character of Commercial Development and Promotion of Energy, Water Conservation and Reduction of Greenhouse Gas Emissions.



Objective

The objectives of this development permit area are as follows:

- 1. To enhance the natural shoreline and marine environment.*
- 2. To manage development in areas exposed to future flooding from the combined effects of sea level rise and coastal storms.*
- 3. To improve the maritime commercial character, safety and efficiency of the ferry terminal for local residents, visitors and service providers.*
- 4. To encourage innovative building design and ecological and cultural interpretive signage for Descanso Bay in Hul'qumi'num and English languages.*
- 5. To reduce energy and water consumption in buildings and encourage occupant comfort, health and safety.*
- 6. To encourage pedestrian, bicycle and transit use.*

Development Permit Area Guidelines for DP-10 Ferry Terminal are to be included in the Gabriola Island Land Use Bylaw.

Land-Use Bylaw Amendment

Existing Text

The current Land Use Bylaw #177 Schedule B includes a WC3: Water Commercial 3—Marine Transportation zone which only applies to the water lot portion of the ferry terminal. The upland area (i.e., where the parking lot and waiting room are located) is zoned for non-ferry uses: residential, commercial and resource. The WC3 zone also provides for a ferry dock but prohibits buildings.

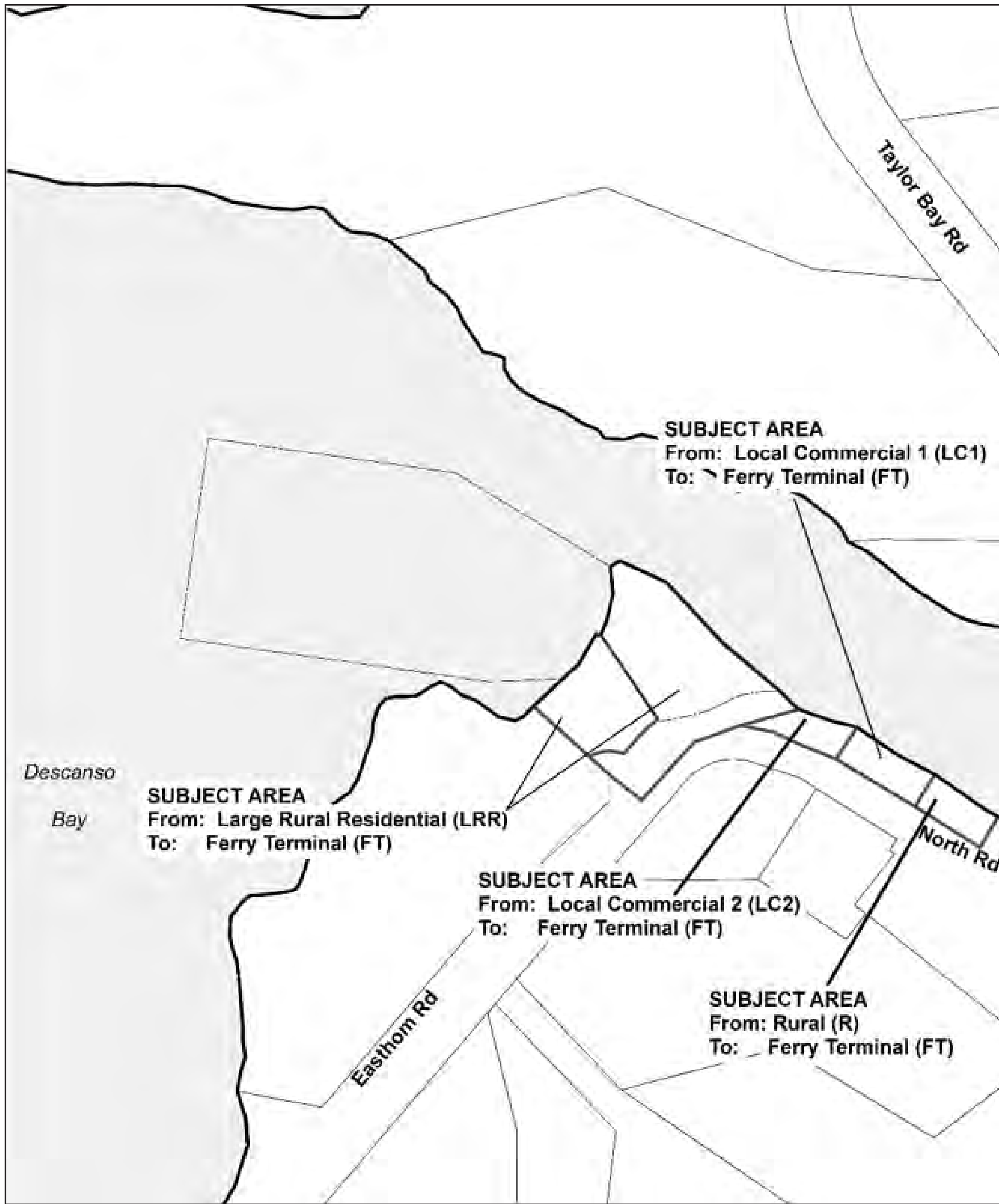
Proposed Text

Creation of a new Ferry Terminal Zone (FT) that would permit ferry terminal as a permitted use.

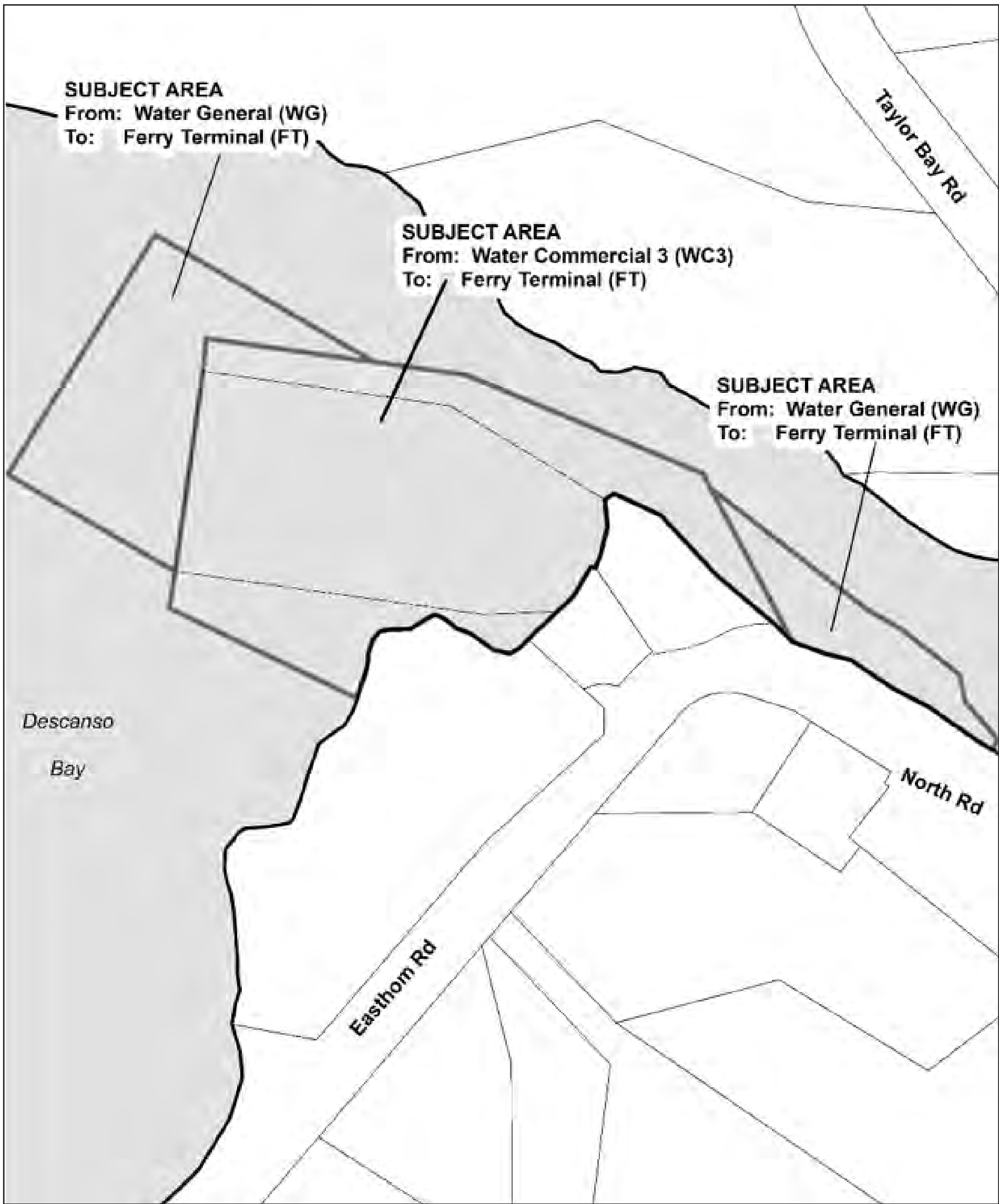
Ferry Terminal: a marine- and land-based facility that includes buildings or structures for the transportation of passengers, vehicles and goods; including passenger waiting room and amenities, storage areas, loading and unloading areas, and small scale commercial retail uses oriented to ferry users

A full copy of the draft land use bylaw changes are available on the Islands Trust website and copies are available at today’s session.

Land Area Changes



Marine Area Changes



Land-Use Bylaw Amendment

New Development Permit Area Guidelines (1 of 2)

New Development Permit Area Guidelines have been created that will be used to review Development Permits submitted for the terminal.

.10.3 Guidelines

Prior to undertaking any development activities within DP-10 that are not exempted by F.10.2.1, an owner of property shall apply to the Local Trust Committee for a development permit, and the following guidelines apply:

Protection of the Natural Environment:

- F.10.3.1 Docks, piers, ramps and marine based structures should be designed and constructed to avoid or minimize and mitigate impacts to environmentally sensitive marine areas such as critical habitat of Species at Risk, eelgrass beds and fish habitat. Enhancement or restoration measures, such as creation of new habitat, are encouraged as a compensation tool.
- F.10.3.2 Minimize shading of the water by incorporating perforations, using large spacing between deck planks or by using an alternative deck surface such as metal mesh or grating.
- F.10.3.3 Following ‘dark sky principles’ all exterior lights should be directed and/or shielded to illuminate the ground only and to prevent unnecessary light pollution in the vicinity.
- F.10.3.4 Native or indigenous vegetation should be retained wherever possible. If not possible, then ecological restoration should be incorporated into the development.
- F.10.3.5 All landscaping plans for new development must be prepared by a member of the B.C. Society of Landscape Architects or other qualified professional. All plant materials and contractor’s work must meet or exceed the standards of the B.C. Nursery Trades Association or the B.C. Society of Landscape Architects.
- F.10.3.6 Additional conditions will be included in a development permit to incorporate any qualified professional recommendations within an environmental assessment.

Protection of Development from Hazardous Conditions:

- F.10.3.7 Development is supported by a specific flood construction level study prepared and stamped by a qualified professional engineer with demonstrated experience in coastal engineering.

Land-Use Bylaw Amendment

New Development Permit Area Guidelines (2 of 2)

Promotion of Energy and Water Conservation and Greenhouse Gas Emission Reduction:

- F.10.3.8 A qualified professional retained by the applicant is required to provide a written report summarizing the proposed measures incorporated in the proposed development that address energy and water conservation.
- F.10.3.9 An integrated design process should be utilized to identify opportunities to reduce a building's energy and water consumption.
- F.10.3.10 Overall building energy performance and interior thermal comfort should be maximized through a combination of passive design strategies.
- F.10.3.11 The ferry terminal waiting room should include a potable water bottle filling station, if potable water is available
- F.10.3.12 An on-site integrated stormwater management plan prepared by a qualified professional should be required and implemented to reduce impervious surfaces, promote infiltration and capture and treat stormwater runoff from 90% of the average annual rainfall using acceptable best management practices. The plan should incorporate strategies for rainwater and storm water capture and reuse.
- F.10.3.13 Site design should minimize vehicle and pedestrian conflicts and clearly delineate pedestrian walkways throughout the site.
- F.10.3.14 Bicycle parking should be provided in a sheltered location and include a bike repair stand.
- F.10.3.15 Site design should prioritize safe and efficient public bus and school bus loading and off-loading at the terminal.

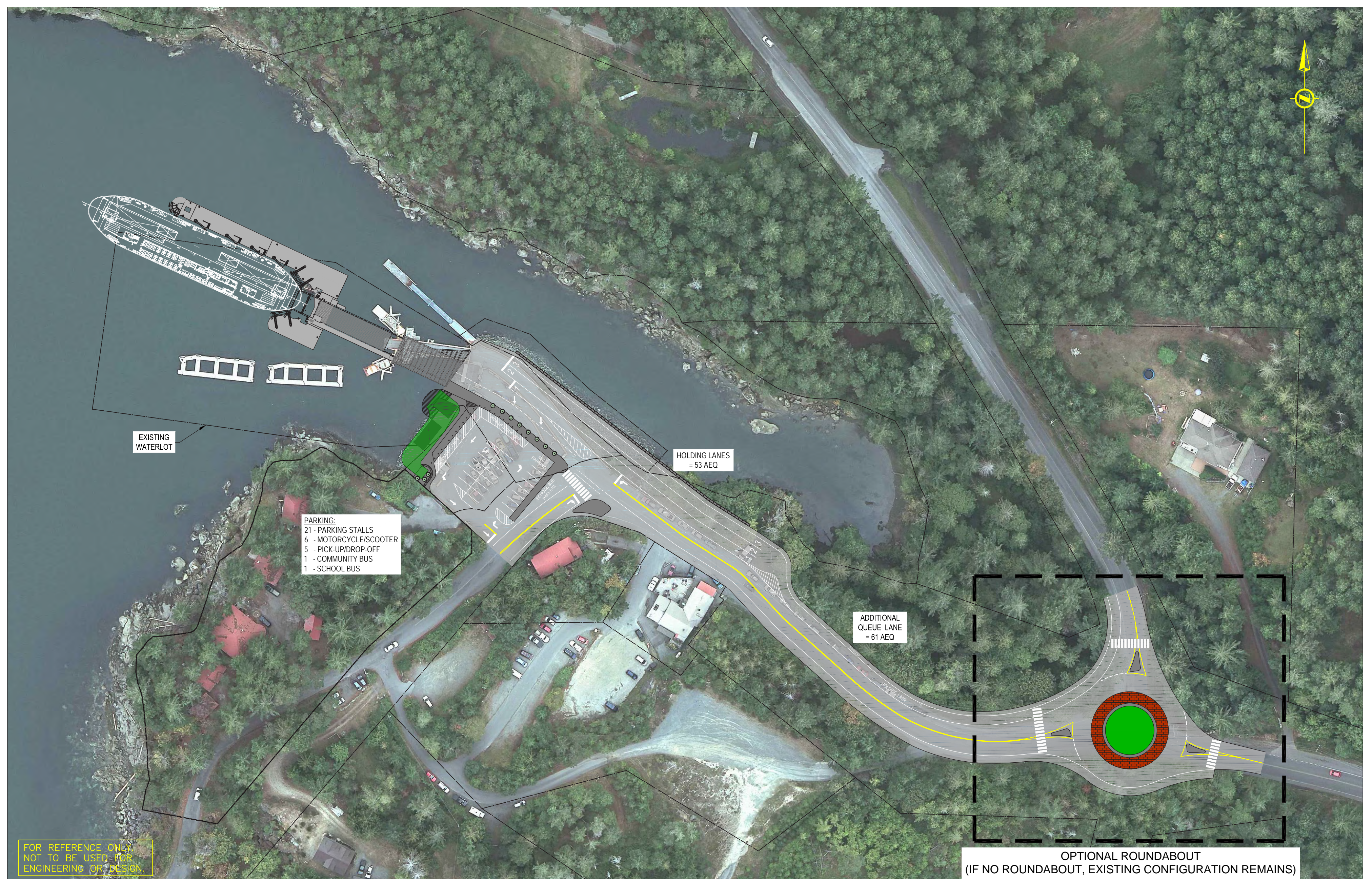
Form and Character

- F.10.3.16 Public access to the waterfront should be provided only in a location where it is safe and appropriate to do so. New waiting room and areas should overlook the waterfront to make the most of the ocean vista and provide good sightlines to arriving ferries and provide a sense of arrival to ferries arriving at Descanso Bay.
- F.10.3.17 Interpretive signage in the English and Hul'qumi'num languages pertaining to the ecological and cultural significance of Descanso Bay should be incorporated where possible into the site design.
- F.10.3.18 The ferry terminal waiting room should be universally accessible with a minimum indoor seating capacity for 16 occupants.
- F.10.3.19 Chain link fencing will generally be discouraged.
- F.10.3.20 Public art including interpretation panels, welcoming poles, and other opportunities should be incorporated into terminal design where possible.
- F.10.3.21 Large expanses of blank or unimproved walls lacking building details are discouraged. Building facades should be articulated and broken into smaller distinct visual units. A variety of materials, textures and scales including art, vegetation or other screening should be utilized to provide visual interest.

Gabriola Terminal Development Plan

BC Ferries prepared a Terminal Development Plan (TDP) for its site at Descanso Bay, Gabriola Island Ferry Terminal in 2018 which was approved by BC Ferries in 2019. Its purpose is to set out a long-term vision for this important terminal—the main gateway and route connection between Gabriola Island and Nanaimo Harbour.

Two Island Class vessels are to be introduced in 2022, replacing the Quinsam, to better meet demand over the day through an increase in frequency and capacity. The TDP addresses the marine infrastructure, the landside, and the approach to the terminal to better serve these two new vessels. The overall scheme is shown below:



Key features include:

- Improved vehicle holding compound to reduce traffic backups and conflicts,
- Sidewalks for improved safety and accessibility,
- Dedicated thru lane for pick-up / drop-off traffic,
- Space for the community bus,
- Dedicated parking for customers and vessel staff, and
- New waiting room/washroom building with dedicated covered bike parking.

Although options are restricted by the limited land area, the TDP provides improvements over the existing situation. Some of these aspects are shown in more detail by illustrative plans on the following panels.

Considerable design must still be done over time and redevelopment will be staged in a comprehensive program over 25 years. Improvements will be organized into strategic phases prioritized by functional (issue / opportunity / need) and social (local / community) needs. As a result, the TDP provides the long-term plan that allows BC Ferries to provide safe, cost effective ferry services and replace and upgrade capital assets in a financially responsible manner.

New Terminal Building

Customer Focused

Pedestrian and Bicycle Friendly: Generous waiting areas and sidewalks, covered bicycle parking area and electric bicycle charging stations

Wayfinding: Screen with real-time sailing information, arrival and departure signage, brochure with local information + events

Outdoor Areas: Picnic area facing Descanso Bay, generous covered spaces, and vegetation integrated into design

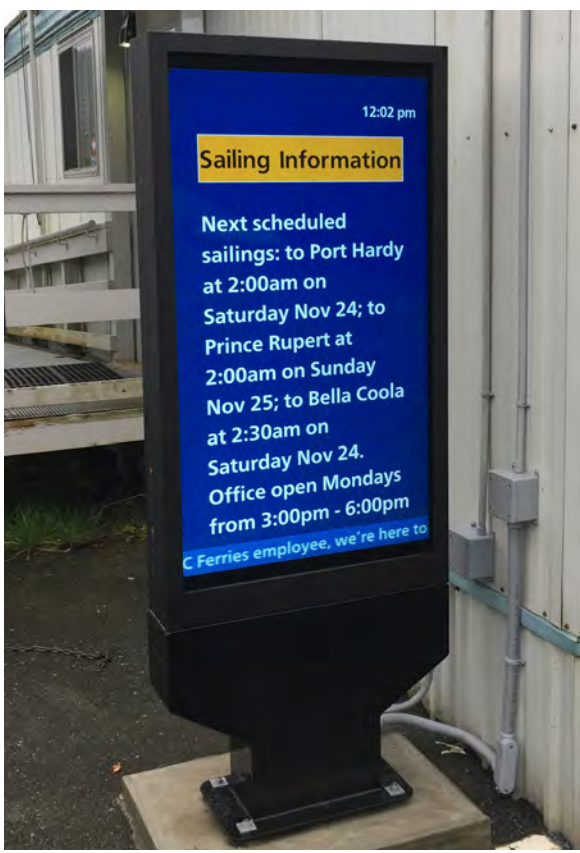
Fully Accessible: Seamless paved area for wheeled transport and fully accessible washrooms

Comfortable Waiting Room: Variety of seating options

Device Charging: Sufficient charging outlets

Filtered Water: Bottle filling station + drinking fountain

Family Friendly: Change tables in the universal WC, small group eating areas and good visibility between the waiting room and outdoor spaces



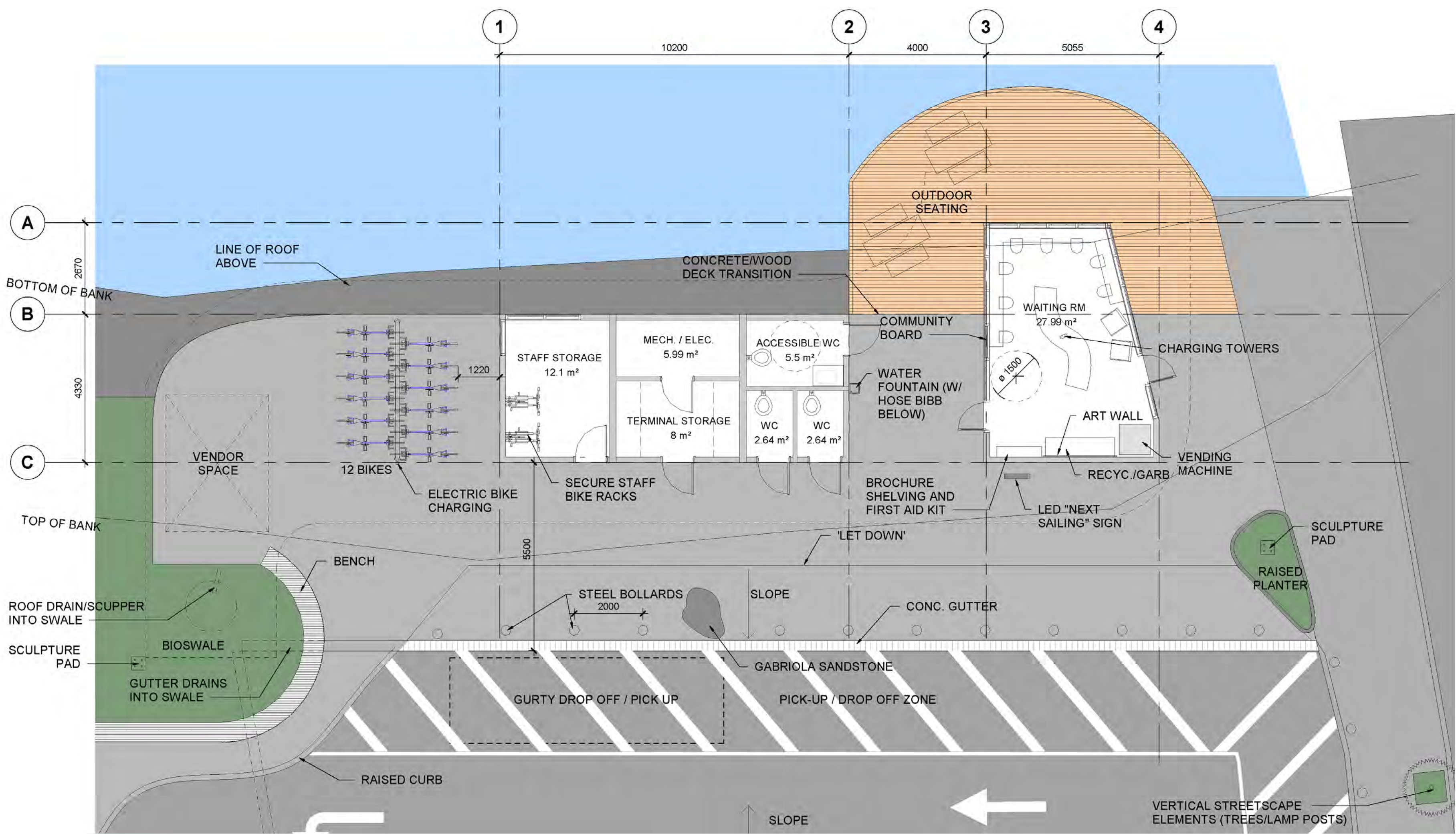
Real-Time Vessel Updates



Bike Parking



Device Charging / Barrier-free Bollard Design



Place for Art Display



Cafe-like Seating



Lampposts and Banners



Sandstone Feature

Sense of Place

Arrival: Welcome features for Gabriola Island

Art: Places designated for temporary art installations

Form and Character: Design represents Gabriola's unique qualities

Ecological Design: Possible strategies include green roof, wood construction, bicycle/pedestrian considerations, habitat enhancement, solar panels

Local Partnerships: We are hoping to form partnerships with local organizations to assist in creating a community focused design

New Terminal Building

Building Massing and Design

Site

- Create an open, pedestrian focused environment
- Integrate landscape elements into the site
- Ample area for transit and vehicle drop-off and pick-up
- Local vendor space for seasonal use
- Smooth pedestrian flow for drop-off and pick-up
- Sculpture display area for local artists or stakeholder groups



Concept View from Ferry Arrival Walkway



Concept View Showing Colour Option on Facade



Concept View of Arrivals Deck

Building Form

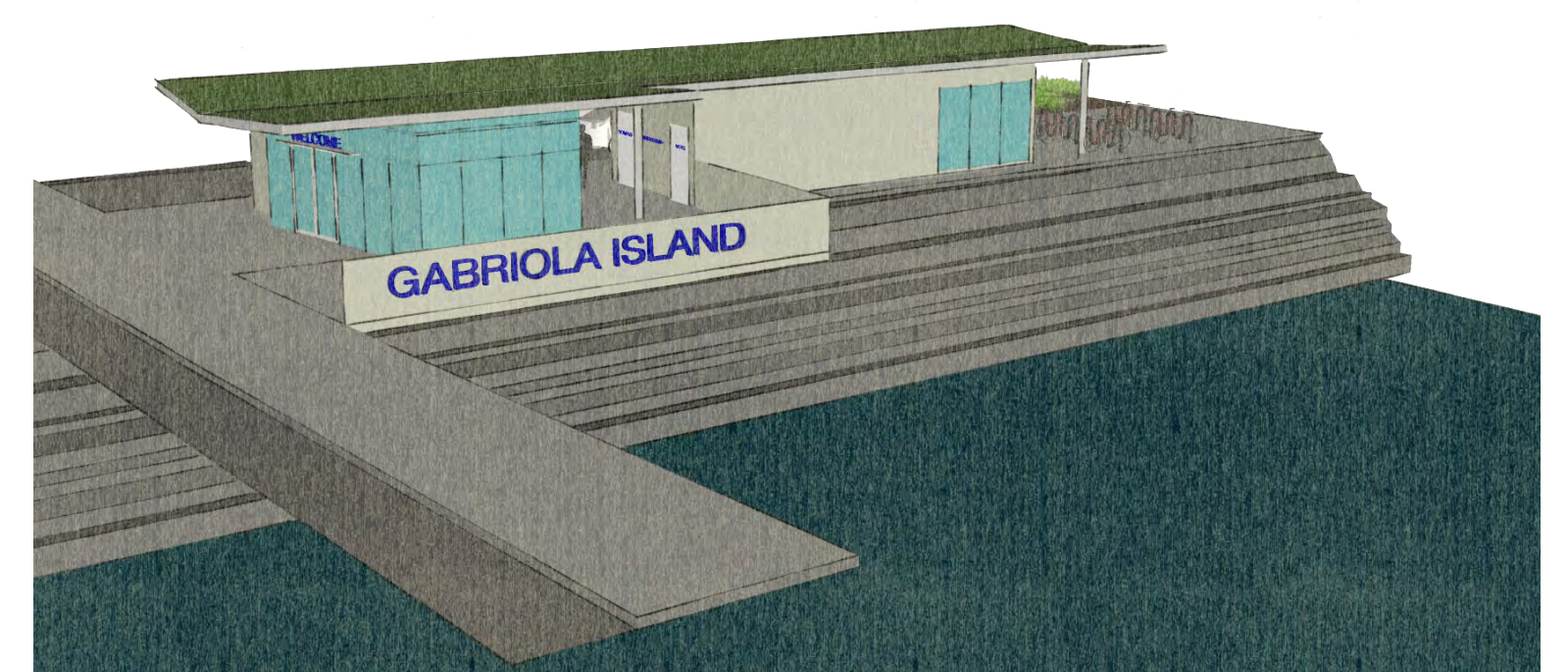
- A flat roof concept that integrates signage and generous covered areas
- Green roof for storm-water management and unique “Gulf Islands” feel
- Separate service areas from waiting room to enhance customer experience.
- Long building form creates a civic, street-like entry
- Views from drop off into waiting room
- Community bulletin board area



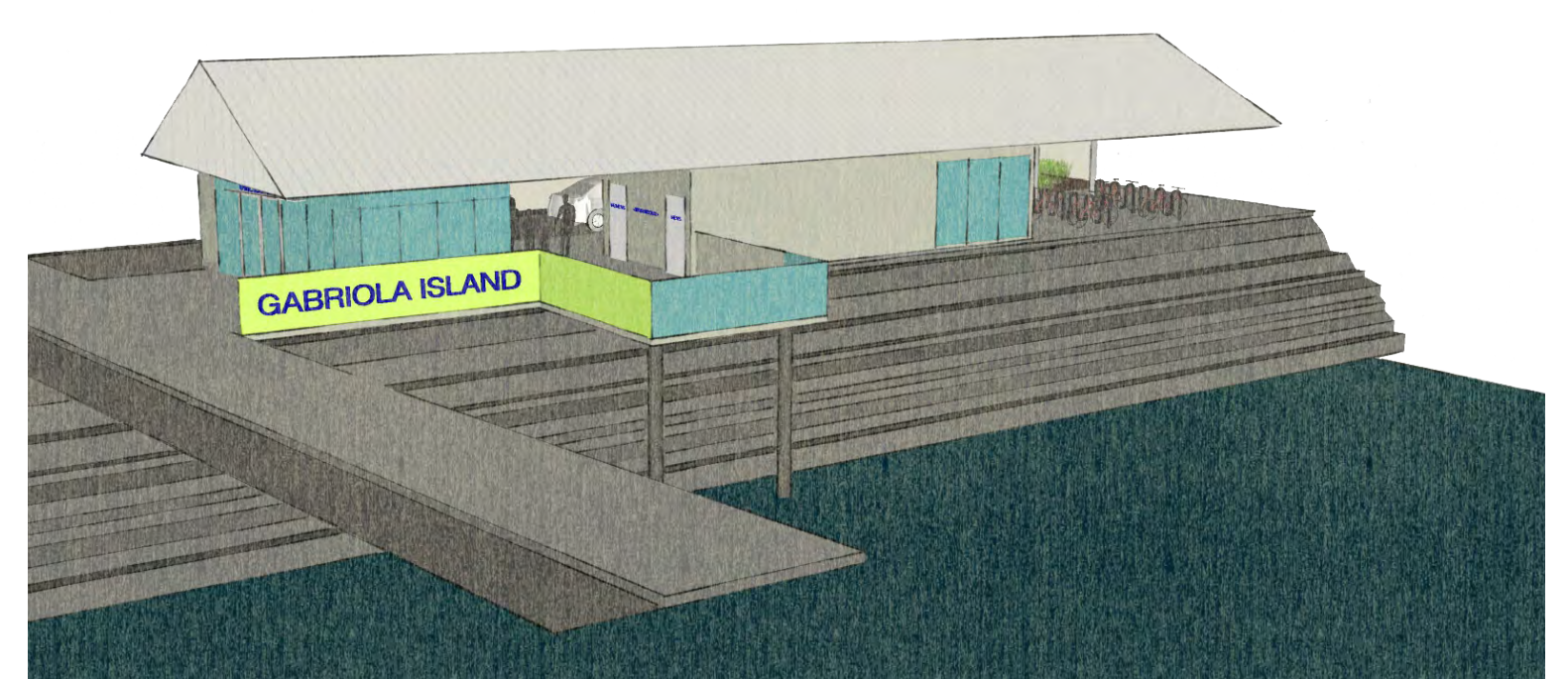
Concept View from Terminal Arrivals

Interiors

- Waiting room that faces the water, with generous glazing
- A variety of seating types
- Open concept
- Warm materials, wood roof/ceiling element
- Display area for local artists
- Durable finishes that are low maintenance
- Barrier free environment



Alternate Massing 1 - Butterfly Roof



Alternate Massing 2 - Gable Roof

Landscape Concept



Entry Walkway Precedent Images



Landscape Concept

Proposed Native Plant Palette

Trees and Large Shrubs



Groundcovers, Grasses and Perennials



Precedent Images

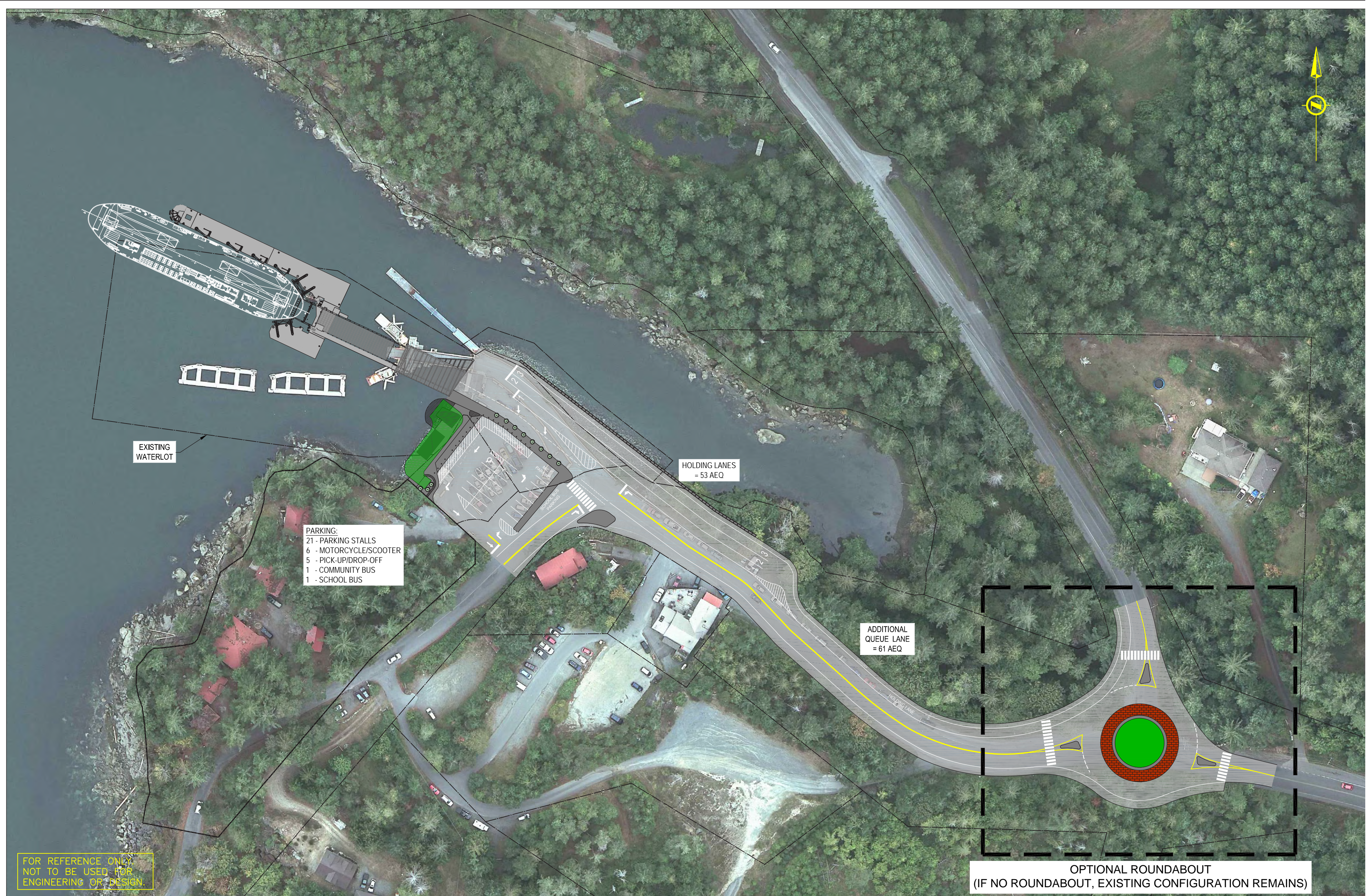
Bio-Swales



Custom Benches



Transportation and Utilities



Transportation

Currently, vehicle traffic for the ferry queues along the north side of North Road and the west side of Taylor Bay Road. Promoting safety and increasing vehicle capacity, the Terminal Development Plan aims to develop a dedicated holding compound for 53 vehicles, also upgraded holding lanes along North Road and Taylor Bay Road will provide an additional queue length of 61 vehicles. The overall system would be improved for safer access for vehicles, pedestrians and cyclists, with designated lanes, better signage, sidewalks, bike parking, marked crosswalks, designated bus parking, and more organized pick-up/drop off areas. In the long term, intersections will be improved including a roundabout proposed for the intersection of North Road with Taylor Bay Road.

Storm Drainage

Storm drainage from Taylor Bay Road and North Road are currently managed through roadside ditches, ultimately discharging into Descanso Bay. The proposed new stormwater system would be a combination of underground infrastructure, surface collection, conveyance components and green infrastructure. Where possible, infiltration areas and oil-grit separation will be included for peak attenuation and water quality control.

Sanitary Sewage

Sanitary sewage is currently collected on-site and pumped for off-site disposal. Three future options were identified: (1) in ground disposal using septic tanks and an absorption field; (2) a packaged water treatment system with marine discharge; and (3) a holding tank that is pumped to either BC Ferry vessel holding tanks or pumper truck, both for off-site treatment and disposal. Option 3 is preferred.

Potable Water

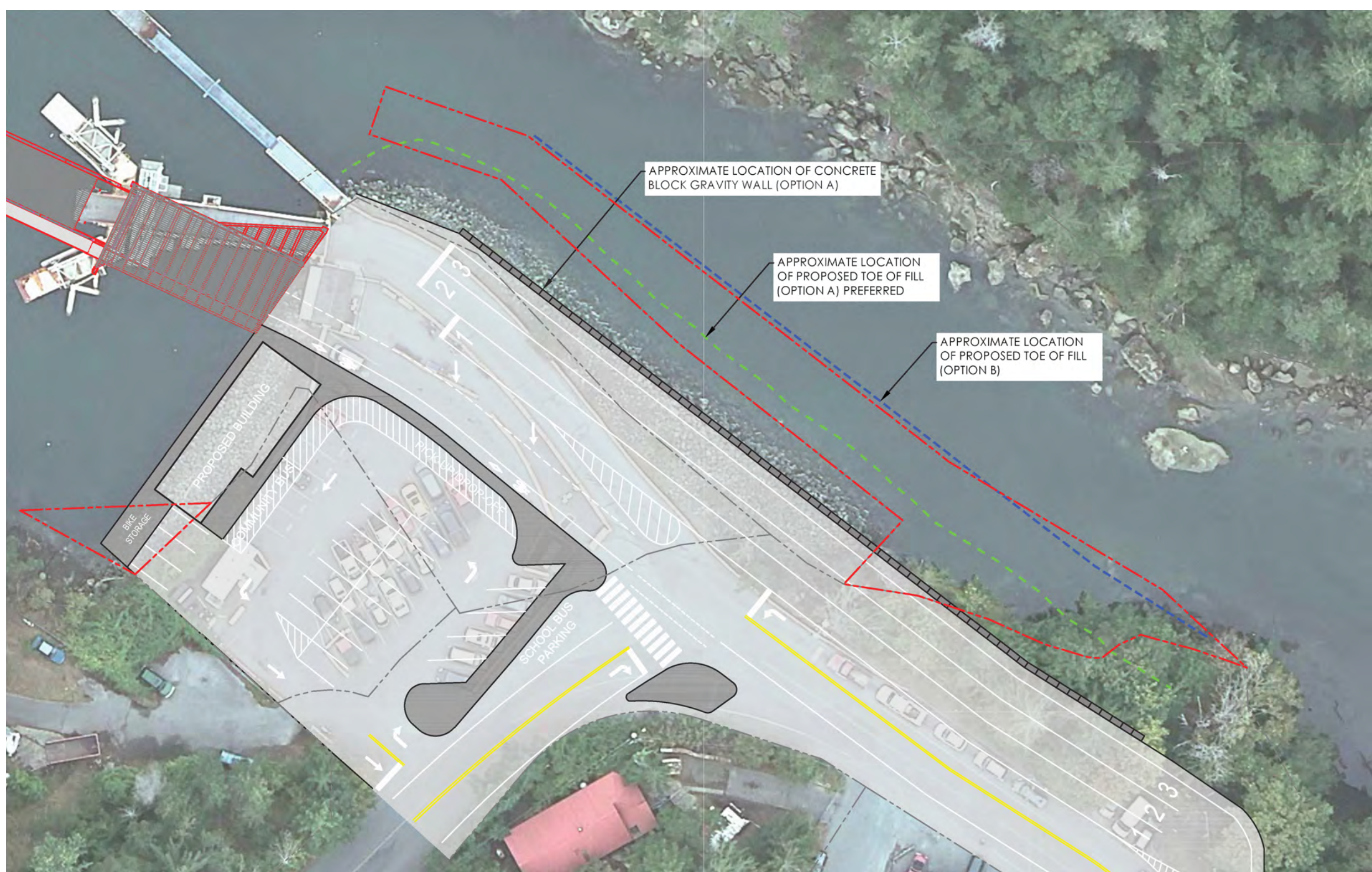
Potable water is currently provided to the ferry terminal by pipe from a private off-site well through a contract. Three future options have been identified to serve a new terminal building: (1) the preferred option is to continue to use the existing well—changes are required to licensing, etc.; (2) the same option, but with a different off-site well; and (3) a new well on-site.

Geotechnical and Archaeology

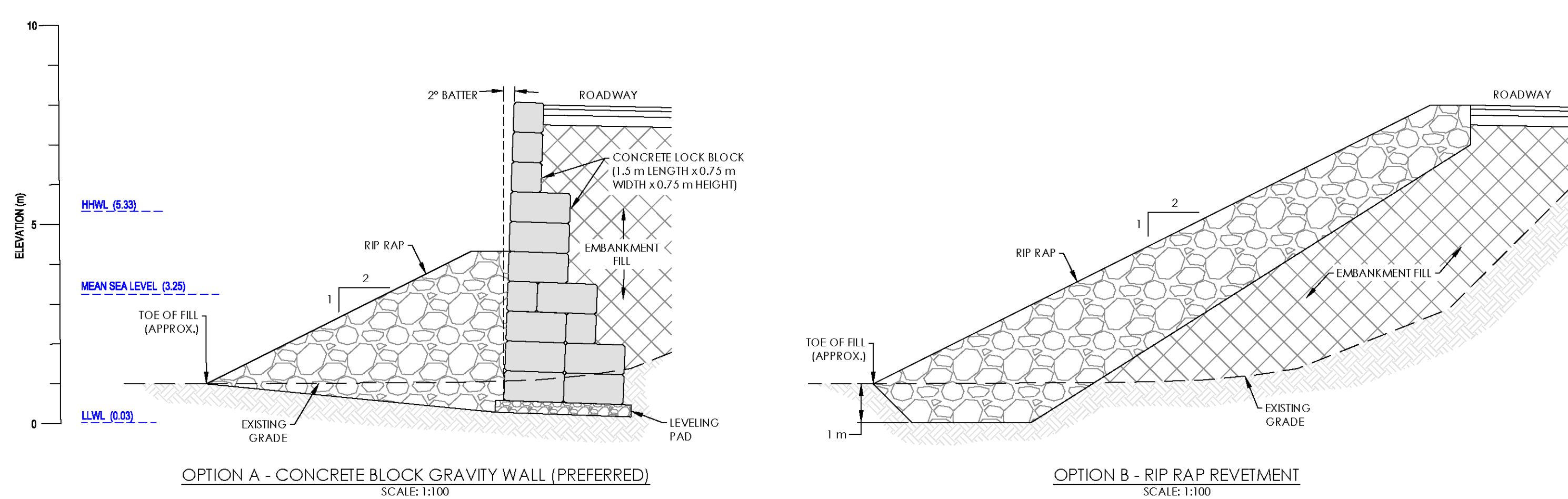
Geotechnical

Expansion of the queuing area will require some shoreline extension with associated fill placement. Two options have been considered from a conceptual design standpoint: (A) Concrete block wall with riprap stability berm and (B) Riprap revetment slope (similar to existing slope). Option B would extend further into the water, while Option A would be more expensive and more complicated to construct. Schematic sections and the extent of fill are shown below for each option. This is based on preliminary design that used inferred subsurface conditions and does not account for seismic loading. Actual limits of fill and structure/slope configurations will be further determined during detailed design.

Site Plan Showing Proposed Slope Options



Schematic Conceptual Sections - Options A and B



NOTE:
ELEVATIONS TO BE DETERMINED IN DETAILED DESIGN.

SCALE IN METRES
0 1 2 3 4 5
1:100

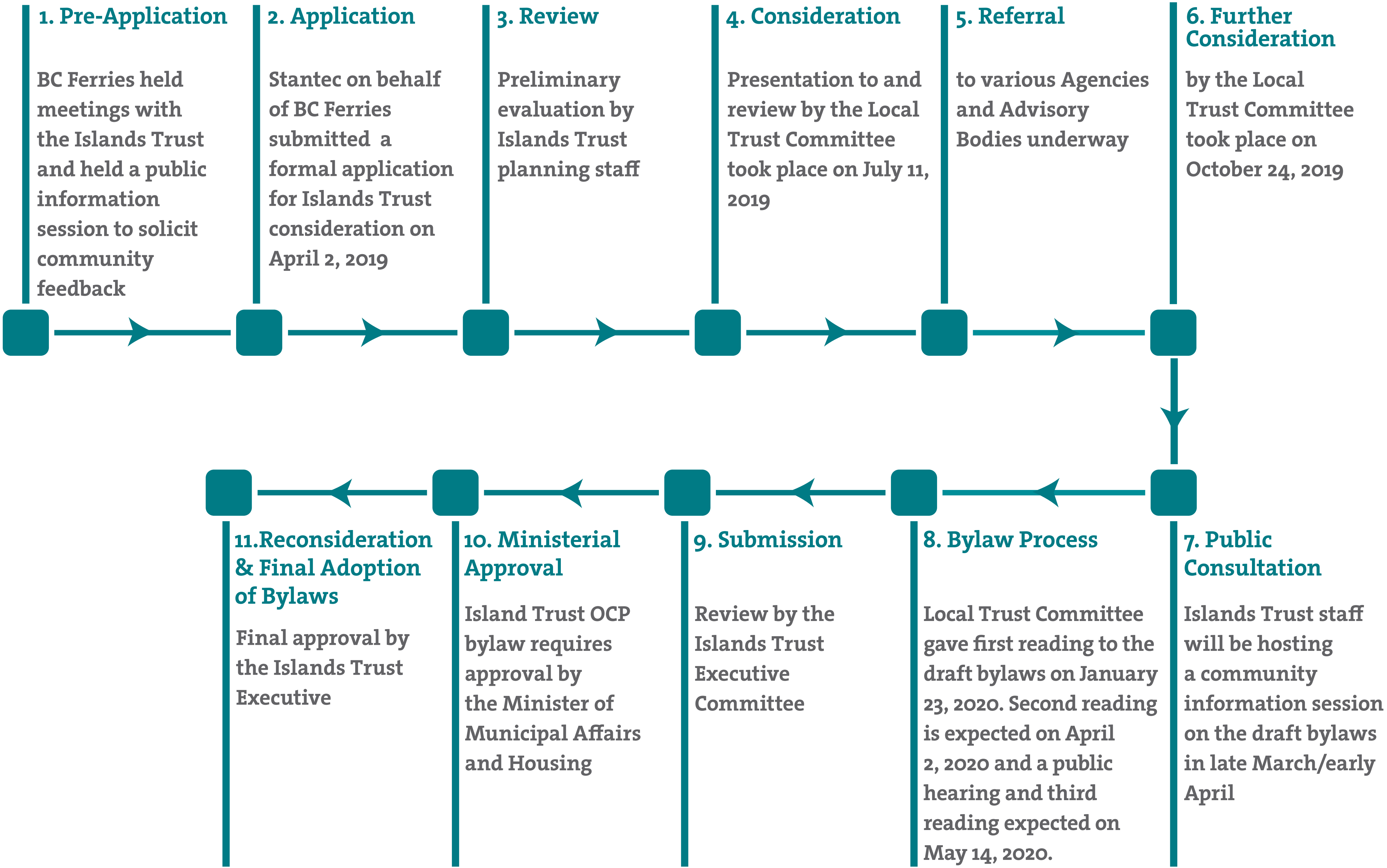
Archaeology

A recent archaeological review indicated that, since it is on a shoreline and there are several archeological sites in the surrounding area, the project area has potential for as yet undiscovered archaeological sites. A Heritage Conservation Act permit and archaeological impact assessment is recommended for locations where ground disturbance is proposed.

Planning Process

Process

The approval authority for the amendments to the Official Community Plan and Land Use Bylaw is the Islands Trust.



Timeframe

The Islands Trust has indicated that their process takes from 18 to 24 months.

THANK YOU FOR YOUR TIME AND INPUT

To view these panels and see more information on the Gabriola Terminal Development Plan please visit:

<https://www.bcferrries.com/about/publicconsultation2/terminal-development-planning/gabriola.html>

Nanaimo Harbour Terminal Development Plan | Illustrative Concept Plan

