

DATE: July 7, 2023**FILE:** 3160-20/FR 2A 23**TO:** Chair and Directors
Electoral Areas Services CommitteeSupported by Jake Martens
Acting Chief Administrative Officer**FROM:** Jake Martens
Acting Chief Administrative Officer*J. Martens***RE:** **Application for Site Specific Floodplain Setback
5450 Island Highway (Kensington Union Bay Properties Nominee Ltd.)
Baynes Sound – Denman/Hornby Islands (Electoral Area A)
Lot 3, District Lot 154, Nanaimo District, Section 32, Township 1 and District
Lot 28, Nelson District, Plan EPP15507, PID 028-731-531**

Purpose

To bring forward an application for a site-specific building setback relative to the prescribed floodplain setback requirements outlined in the Floodplain Management Bylaw No. 600, being the “Floodplain Management Bylaw No. 600, 2020” for a proposed commercial building on the Union Bay Estates property (formerly “Kensington Island Properties”) and to outline the broader context of considering floodplain setback modification requests in Union Bay.

Recommendations from the Acting Chief Administrative Officer:

1. THAT a Coastal Flood Protection Strategy that includes a coastal geomorphology assessment to identify the coastal processes and feeder bluffs for Union Bay and provides recommended flood protection strategies specific to this section of coastline be developed by the Comox Valley Regional District as part of the ongoing implementation of the Comox Valley Regional District’s Coastal Flood Adaptation Strategy.
2. THAT staff be authorized to prepare a Board policy to guide the Board’s review and decision making on applicant requests to modify flood setback and flood construction level requirements through the floodplain exemption application process relative to the Board’s hazard acceptability threshold and as part of the ongoing implementation of the Coastal Flood Adaptation Strategy.

Executive Summary

- The applicant proposes to construct a commercial building on the subject property within 100 metres of the sea. The Floodplain Management Bylaw, based on the Provincial Guidelines, requires such buildings to adhere to a floodplain setback prescribed by a professional engineer calculated using a methodology that accounts for sea level rise to the year 2100.
- The applicant’s engineer identifies setbacks ranging between 135 metres and 170 metres in order to render the building safe for the intended commercial use. The engineer’s report states that the 2100 future natural boundary with a 15m setback is “*estimated to be about 135 m and 170 m measured from the existing natural boundary*”. The report continues, “*the higher lands above the Year 2100 FCL...are not suitable in size or location for the Discovery Centre site since the size/orientation of the proposed building (sic). Furthermore, the location of the higher lands will likely be used for proposed future structures and facilities.*”
- Citing the development plans for the balance of the property as a limiting factor, the applicant’s engineer has prescribed a lesser setback along with required mitigation strategies,

including a minimum flood construction level of 5.9 metres and the installation of “wave barriers” to protect the building from flooding (Figure 3).

- The applicants have made a floodplain setback exemption application to allow the engineer’s proposed modified setback and associated mitigation strategies. Note that the owner has concurrently submitted a subdivision application to the Ministry of Transportation and Infrastructure that proposes to place this proposed building on a new lot that will be entirely seaward of the prescribed floodplain setback. At this time, however, as the engineer notes, there are other locations on this property to site the proposed “Discovery Centre”.
- The Provincial “*Flood Hazard Area Land Use Management Guidelines*” make provision for a local government to alter its bylaw’s floodplain setback when “*a serious hardship exists and no other reasonable option is available*” (section 1.3). Although the broader development plans for more commercial and residential uses on the property are acknowledged, at the current time subdivision approval has not been granted by the Ministry of Transportation and Infrastructure and therefore staff have not identified a hardship within the realm of the provincial guidance.
- Decisions on setback modification requests are the discretion of the Board so consideration may be given to granting the modification, denying the modification or requesting additional information from the applicant before rendering a decision. Regardless, staff recommends that a comprehensive assessment be undertaken by the CVRD.
- Staff’s recommendations pertain to developing a comprehensive approach to protecting the coastal shoreline and all of the assets (e.g. infrastructure) and values (e.g. cultural heritage) that depend on a resilient shoreline. This is a distinct lens from that of the floodplain bylaw (protection of development from hazard) and its enabling legislation. The preparation of a Strategy for the Union Bay coastline (approximately 3.6km) was identified in the Coastal Flood Adaptation Strategy project as an implementation item. The work will be undertaken with a consultant and funded through the electoral areas planning function.

Prepared by:

A. Mullaly

Alana Mullaly
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 and Development Services

Government and Community Interests Distribution (Upon Agenda Publication)

Applicant	✓
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Background/Current Situation

The seven hectare subject property is located on a strip of land between the Strait of Georgia and the Island Highway in Union Bay (Figures 1 and 2). It is part of the development project referred to as “Union Bay Estates” (and formerly referred to as “Kensington Island Properties”). The land has been heavily altered in the past and is currently mostly cleared of native vegetation. The owner has been pursuing development of this lot with a commercial building referred to as the “Discovery Centre”. The owner intends to further develop the balance of this parcel and the adjacent coastal lands with more commercial and residential uses. The owner has made subdivision applications to the Ministry of Transportation and Infrastructure to facilitate the next stages of development.

The owner has submitted a Building Permit to construct the commercial building 30 metres from the shoreline (Figures 3 and 4). The Floodplain Management Bylaw requires such development to abide a floodplain setback that accounts for sea level rise to the year 2100 but allows an owner to

request a site specific building setback in certain instances and when the request is supported by a professional engineer who determines the land may be used safely for the use intended. As the applicant's preferred location for the proposed building, relative to the development of the balance of the parcel, is located seaward of the year 2100 floodplain setback, the owner has submitted this application with a report prepared by LCI Engineering Group (Appendix A).

Policy Analysis

Supporting Policy 8F-6 of Bylaw No. 120, being the "Comox Valley Regional Growth Strategy Bylaw No. 120, 2010" (RGS), discourages new development within floodplain areas. Such proposals need to account for impacts from climate change, including sea level rise and storm surges. Similarly, Policy 16(1) of Bylaw No. 337, being the "Rural Comox Valley Official Community Plan Bylaw No. 337, 2014" (OCP), directs development away from hazard areas, including mapped floodplains.

The RGS and OCP also contain policy direction for regional floodplain mapping and management to ensure consistent development controls within floodplains (RGS Supporting Policy 8F-5 and OCP Policy 16(6)). These policies, combined with the 2018 directive from the Province prompted the CVRD's Coastal Flood Adaptation Strategy project (CFAS). Phase 1 (completed in 2021) was coastal flood mapping to identify the flood extent to the year 2100 (i.e. the floodplain). Phase 2 (completed in 2022) incorporated analysis from Phase 1 to conduct stakeholder engagement, analyze risk assessment and propose decision making tools to identify preferred adaptation options. Phase 3 (in progress) involves options development, general public engagement and development of the Dyke Road Park Master Plan as a Greenshores™ demonstration site. The CFAS informs development planning by identifying flood hazard areas (through aforementioned mapping), risk assessment and mitigation measures that are required in reviewing coastal development proposals.

Planning Analysis

Floodplain Management Bylaw

Per the CVRD's floodplain bylaw, the construction of habitable area within 100.0 metres of the sea must adhere to a flood construction level (FCL) and floodplain setback prescribed by a professional engineer in accordance with the methodologies found in the provincial *Flood Hazard Area Land Use Management Guidelines* (Guidelines) and the Engineers and Geoscientists of BC's *Professional Practice Guidelines – Legislated Flood Assessments in a Changing Climate*. These methodologies account for sea level rise to the year 2100. The applicant's engineer confirms that the subject lot is not sterilized from development but the applicant's preferred location and size of the building places it seaward of estimated future natural boundary and therefore provides recommendations that would allow the building to be constructed no closer than 30 metres from the present natural boundary while remaining safe for the use intended with the implementation of several risk reduction strategies including constructing to the 5.9 metre FCL. The report recommends the use of two "wave barriers" designed at a 2.5 V: 1 H slope on the seaward side consisting of concrete lock-blocks, and rip rap with soil and vegetative plantings on top. The southern wave barrier is proposed to be 30 metres landward from the shoreline and the eastern wave barrier is proposed to be located along the eastern side of the building. The wave barriers are proposed to protect this building only. Other risk reduction recommendations address building design aspects, drainage, and consideration of hydraulic loading on the foundations.

The provincial Guidelines, in section 1.3, state:

Subject to review by and if acceptable to the local government, a flood plain bylaw may be modified. The local government may alter any bylaw condition to best match the flood hazard provided the level of protection is not altered. This discretion extends to the reduction of elevation requirements, where flood plain mapping exists, by the freeboard,

provided the subject property is in the flood plain fringe area and there are no major erosion or channel avulsion hazards in the immediate vicinity...

Setback requirements should not be reduced unless a serious hardship exists and no other reasonable option is available. A valid hardship should only be recognized where the physical characteristics of the lot (e.g., exposed bedrock, steep slope, the presence of a watercourse, etc.) and size of the lot are such that building development proposals, consistent with land use zoning bylaws, cannot occur unless the requirements are reduced.

In order to avoid setting difficult precedents these site characteristics should be unique to the subject property and environs. The economic circumstances or design and siting preferences of the owner should not be considered as grounds for hardship. Before agreeing to a modification, consideration should be given to other options such as the use of alternate building sites, construction techniques and designs (e.g., constructing an additional storey and thereby reducing the size of the 'building footprint').

As the applicant's engineer has not identified a hardship within the realm of the provincial guidance cited above, staff is challenged to offer support for the proposed building location. If, however, the Board opts to allow a modified setback, Section 403 of the Floodplain Management Bylaw, requires the LCI Engineering Group report (Appendix A) to be registered on title for the benefit of future property owners to adhere to, along with acknowledgment that no Disaster Financial Assistance Funding is available for the building or its contents and a clause that aims to indemnify the CVRD from liability in the event of any damage caused by flooding or erosion.

Master Development Agreement and Discovery Centre Building Permit

The subject property has a restrictive covenant on title referred to as the Master Development Agreement (MDA). It contains a set of obligations, including a list of amenities that are to be provided by the owner at varying stages of development and conditions for that development to meet. The MDA was registered on title in 2010 (amended in 2017) as one of the conditions of adopting the Kensington Comprehensive Development Zone. According to the MDA, as the first non-residential building permit being applied for, this building permit application necessitated the transfer of at least 36.78 hectares of park land. In accordance with this, the Union Bay Nature Park was transferred to the CVRD in 2022. The dedicated land is seaward of the proposed building and the proposed wave barriers. The MDA remains in effect with other amenities and conditions required at different stages of development. In accordance with clause 2.2 of the MDA, any subdivision or development on any portion of the property must involve Regional District approval of detailed drawings that illustrate improvements and on-site works to be constructed, along with any amenities to be provided.

Zoning

The subject property is zoned Kensington Comprehensive Development Zone – Mixed - Use Commercial / Residential within CVRD Zoning Bylaw No. 600. This zone allows for a variety of uses, including four-storey commercial buildings and multi-family residential buildings up to a maximum density of 90 units per hectare. The proposed building is intended to be principally used as a real estate sales centre, however, it may include any use listed in that zone. At a later date, when the owner no longer needs use of a real estate sales centre, the building may be converted to another permitted use in this zone. Note that a change of use building permit may be required to do that as well as an updated flood risk assessment and related assurance statement (i.e. relative to the proposed use).

Development Permits

This subject property is located within the Kensington Comprehensive Development Permit Area: these are form and character development permit area guidelines. (Note that other portions of the 7

ha property are within natural environment development permit areas). This Development Permit (DP) provides the guidelines for how each area will develop. A DP for this proposed building was issued in 2019 ([File DP 5A 19](#)). Development permits are valid so long as work is substantially commenced within two years of issuance. It has been staff's interpretation that a building permit application reflecting a development permit constitutes substantial commencement. As land works have continued towards constructing this building, including the submission of a Building Permit in November 2020, the DP and its conditions remain in force.

The building and associated land alterations illustrated in DP 5A 19 and in the subsequent Building Permit submissions is sited no closer than 30 metres to the shoreline. Similarly, this LCI Engineering Group report (Appendix A) maintains this minimum 30 metre setback, therefore no Aquatic and Riparian Habitat Development Permit has been required for this building. Past land alterations that have occurred on this lot within 30 metres of a watercourse were reviewed under the Aquatic and Riparian Habitat Development Permit File DP 3A 19, issued in December 2019.

K'ómoks First Nation's Cultural Heritage Policy

The subject property is within a known and/or high archaeological potential area. Development in these areas may require a cultural heritage investigation permit and/or other consent from K'ómoks First Nation. It is the applicant's responsibility to obtain any required consent prior to CVRD building permit issuance. Staff has advised the owner of this requirement in writing.

Next Steps

In order to manage the coastal flood risk and protect the coastal processes in this area, staff recommend developing a coastal flood protection strategy that focuses on implementing site specific, nature "mimicking" approaches (CFAS Phase 1 Final Report) to manage erosion and wave effects. In 2021, the CVRD completed coastal flood mapping for the entire coastline which involved detailed analysis and modelling of coastal flood hazards, including various combinations of coastal storm and sea level rise scenarios. The subject property is identified as being in the 2100 coastal floodplain (Figure 5) and as a focus area for further adaptation planning to address identified risks (CFAS Phase 2, 2022). Given the shared risk to property from coastal flooding, it makes good sense to develop a coordinated and comprehensive approach that contemplates the phased implementation of flood protection as sea level rises and storm events increase. The flood strategy should consider how to minimize increases in long term flood risk to critical existing and proposed infrastructure assets (e.g. Sewer Extension South Project) and important community values (e.g. cultural heritage protection). Staff recommend that the strategy be developed as part of the ongoing implementation of CFAS including updates to the floodplain management bylaw, and the development of a risk tolerance policy that contemplates hazard acceptability thresholds. Staff will retain a consultant to undertake this technical exercise.

Options

The Board has three options with respect to this application:

1. Permit the applicant's proposed modified floodplain setback subject to the owner registering a covenant on the property's land title which outlines the requirement for a post-development report prior to use or occupancy, acknowledges that no Disaster Financial Assistance funding is available, and indemnifies the CVRD from liability in the event of damage caused by flooding or erosion. If this is desired the following resolution is proposed:

THAT site specific engineer's prescription for the siting of a proposed commercial building ("Discovery Centre") relative to the 2100-year floodplain setback of Bylaw No. 600, being the "Floodplain Management Bylaw No. 600,

2020,” be approved on the property described as Lot 3, District Lot 154, Nanaimo District, Section 32, Township 1 and District Lot 28, Nelson District, Plan EPP15507, PID 028-731-531;

AND FINALLY THAT, as a condition of the engineer’s site specific floodplain setback, the property owner, at their own expense, register a restrictive covenant under Section 219 of the Land Title Act, specifying conditions that would enable the land to be safely used for the use intended according to the terms of the engineer report prepared by LCI Engineering Group, dated May 24, 2023, which will form part of the restrictive covenant, as well as an acknowledgement that no Disaster Financial Assistance funding is available for the building or its contents and releasing and indemnifying the Comox Valley Regional District from liability in the event any damage is caused by flooding or erosion.

2. Request the applicant to provide more information about the property, flood risk, and coastal flood adaptation options.
3. Deny the application. The owner may further develop the lot for uses consistent with the Zoning Bylaw or modify the size and location of the proposed building so that it places habitable floor area landward of the estimated future floodplain setback.

Staff’s recommendations are proposed as part of the continued implementation of CFAS. The recommended study work would be estimated to take approximately 8 - 12 months to complete.

Financial Factors

Applicable fees have been collected for this application under Bylaw No. 328, being the “Comox Valley Regional District Planning Procedures and Fees Bylaw No. 328, 2014”. Should there be direction to proceed with the preparation of the Coastal Floodplain Strategy it will be funded through the electoral area planning service function.

Strategic Considerations: Strategic Drivers and Regional Growth Strategy

CVRD Board Strategic Drivers							
Fiscal Responsibility	✓	Climate Crisis and Environmental Stewardship and Protection	✓	Community Partnerships		Indigenous Relations	

Fiscal responsibility: Careful management of services and assets is essential to providing affordable and reliable services to citizens and businesses in the CVRD.

- A condition of a site-specific floodplain setback is a covenant, registered at the applicants’ expense, to indemnify the CVRD from liability in the event any damage is caused by flooding.

Climate Crisis and Environmental Stewardship and Protection: The CVRD is committed to reducing our impact on the environment and accelerating our actions to adapt and respond to climate change impacts.

- Staff’s recommendations, continuing the implementation of CFAS, respond directly to the CVRD’s climate change adaptation efforts.

CVRD Regional Growth Strategy Goals							
Housing		Ecosystems, Natural Areas and Parks		Local economic development		Transportation	
Infrastructure		Food Systems		Public Health & Safety	✓	Climate Change	

Public health and safety: Support a high quality of life through the protection and enhancement of community health, safety and wellbeing:

- Policy 8F-6 of the Regional Growth Strategy recommends discouraging new development within established floodplains, and that this type of development only be supported “where technical analysis by a qualified professional has been undertaken to ensure that lands are safe for use, development will not impact floodplain functions, and construction levels include safety factors to account for climate change”.

Intergovernmental Factors

There are no direct intergovernmental factors related to this application. Note that the engineer’s prescribed mitigation strategy includes “wave barriers”; further development, such as subdivision resulting in smaller lots entirely within the flood extent, may necessitate approvals from senior levels of government.

Citizen/Public Relations

Public consultation is not required for this application.

Attachments: Appendix A – Kensington Union Bay Properties: Coastal Flood Hazard Assessment Report – Coastal Flood Construction Level – Union Bay Discovery Centre

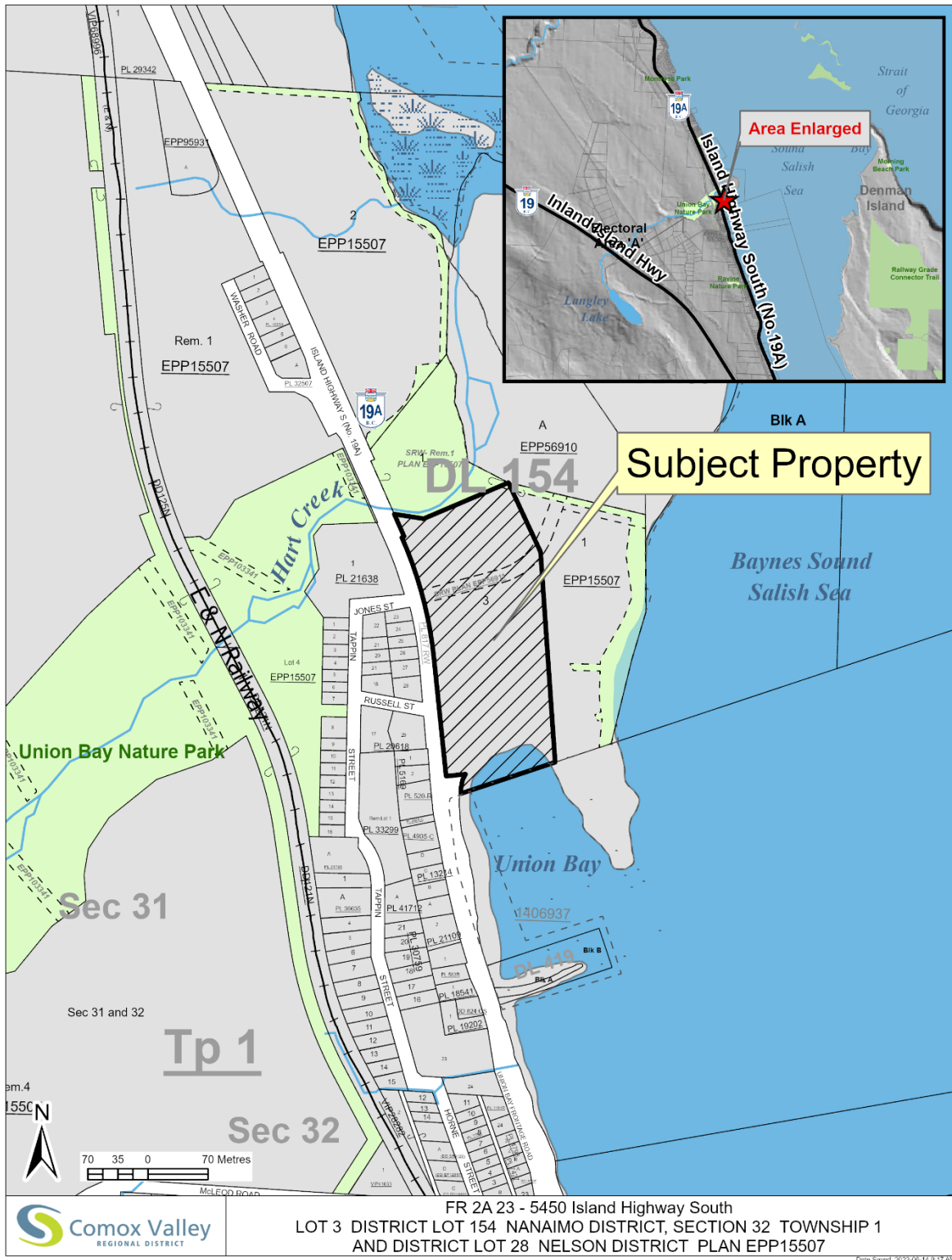


Figure 1. Subject Property

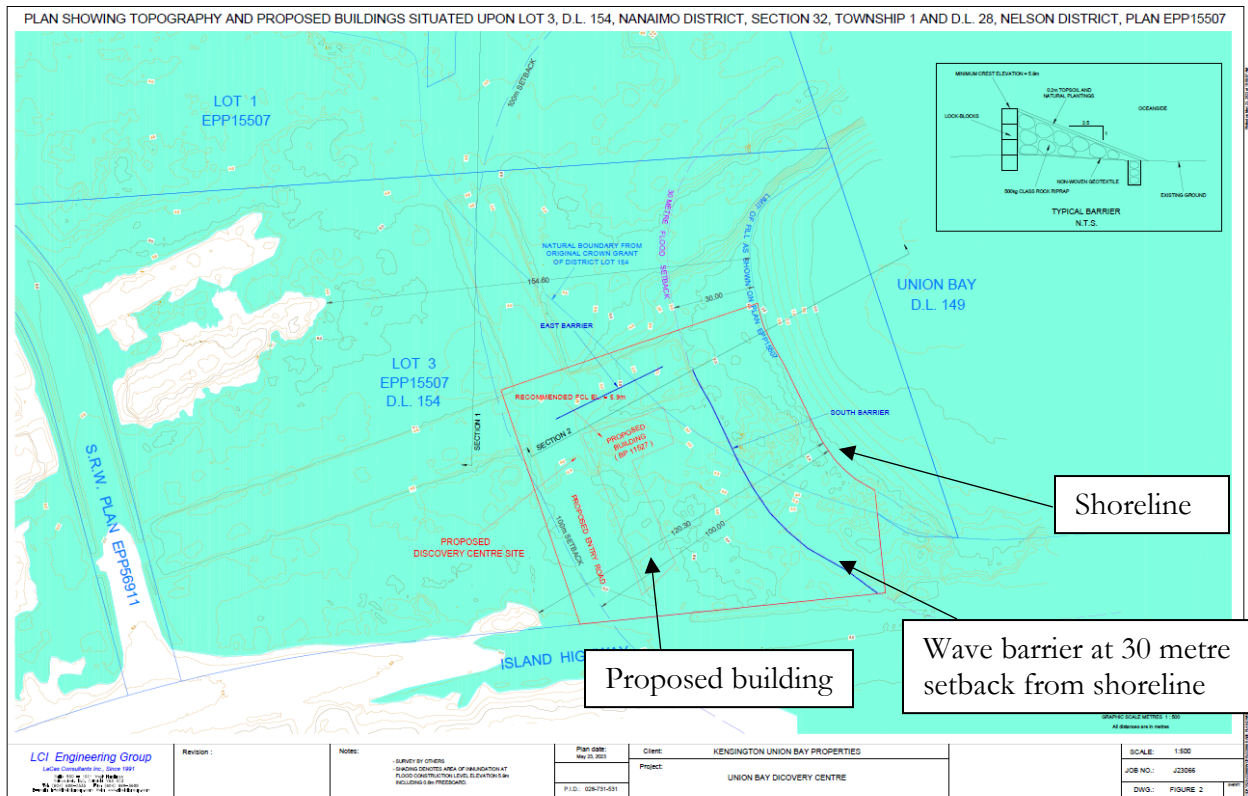


Figure 3. Subject Property (thin blue lines) with estimated flood extents shaded aquamarine; wave barriers (thick blue lines) to south and east of the proposed building based on a site specific analysis. Inset illustrates the wave barriers.



Figure 4: Illustration of proposed building from Kensington Comprehensive Development Permit (File DP 5A 19)

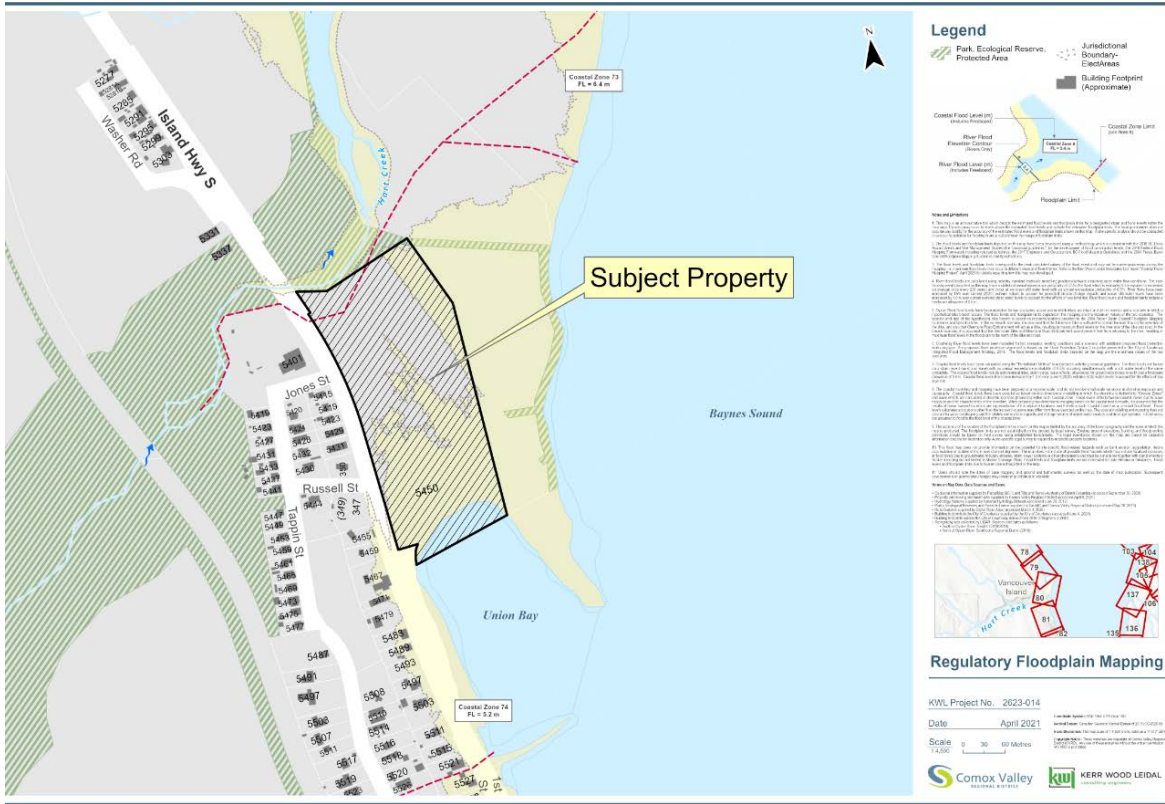


Figure 5: CVRD Area-based Floodplain Mapping illustrating estimated flood extents (yellow) that account for sea level rise to the Year 2100