

**ATTACHMENT D  
ENVIRONMENTAL ASSESSMENT**



**Toth and Associates Environmental Services**

6821 Harwood Drive, Lantzville, B.C. V0R 2H0

Tel: (250) 390-7602

E-mail: stoth@shaw.ca

July 4, 2024

**Dustin Hilderley**

Redwood Coastal Construction

7355 Venture Road,

Lantzville, BC V0R 2H0

**Re: Assessment of proposed development within the City of Nanaimo's Marine Foreshore DPA on 27 Hispanola Place (PID# 001-531-441), Protection Island.**

Toth and Associates Environmental Services were retained by Redwood Coastal Construction to conduct an assessment of proposed development within the City of Nanaimo's Marine Foreshore Development Permit Area (DPA) on 27 Hispanola Place on Protection Island. The proposed development is largely interior renovations, including replacement of the oceanfront side of the house. Schedule 6 (Environmentally Sensitive Areas) of the City's Official Community Plan (OCP Bylaw No. 6600, 2022) indicates that the previously developed 0.1 ha, R3 zoned oceanfront property is located within the Marine Foreshore DPA and that the DPA applies to all areas within 15 m of the natural boundary of the ocean. A field assessment of the property was conducted on April 9, 2024 by Steve Toth, R.P.Bio.

The field survey documented that the 15 m Marine Foreshore DPA on the property (Photographs 1 – 5) consists largely of manicured landscaping, decks, flagstone, gravel and lawn. The existing house and garage are within the 15 m DPA and were built with an approved variance. A concrete retaining wall forms the natural boundary.

The only native trees within the 15 m DPA are 2 Pacific crabapple trees and 4 trembling aspen trees in the southeast corner of the property. There are 4 ornamental cherry trees around a wooden deck in the northeast corner of the property.

There are no Bald eagle or Great Blue heron nest sites documented within 100 m of the subject property by the BC Wildlife Tree Stewardship Atlas<sup>1</sup> or the BC Great Blue Heron Management Team Atlas<sup>2</sup> and no bird nests were observed during the field survey. There are no freshwater watercourses on or adjacent to the subject property. A small rock-lined pond is located in the southeast corner of the property, and it is our understanding that this pond provides a secondary treatment for rainwater derived from the overflow from rock pits which receive water from the roof run-off.

Kinship Design has prepared a landscape plan for the proposed development. Our recommendations for native plant species to be included in the design are provided in Table 1. The Environmentally Sensitive Area Guidelines of the City of Nanaimo's Zoning Bylaw (No. 4500, 2011) are provided in Table 2, along with our comments.

<sup>1</sup> [https://cmmmaps.ca/WITS\\_gomap/](https://cmmmaps.ca/WITS_gomap/)

<sup>2</sup> [https://cmmmaps.ca/gbhe\\_gomap/](https://cmmmaps.ca/gbhe_gomap/)

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**DP1351**  
**2024-JUL-25**  
Current Planning

*Assessment of proposed development within the Marine Foreshore DPA on 27 Hispanola Place,  
Protection Island*

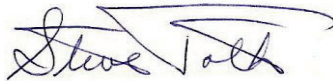
Table 1. Recommended Marine Foreshore DPA plant species for 27 Hispanola Place

Species	Common name
<i>Grindelia integrifolia</i>	Entire-leaved gumweed
<i>Elymus mollis</i>	Dune Grass
<i>Lathyrus japonicus</i>	Beach Pea
<i>Lupinus littoralis</i>	Seashore Lupine
<i>Vaccinium ovatum</i>	Evergreen huckleberry
<i>Lonicera hispidula</i>	Hairy honeysuckle
<i>Mahonia aquifolium</i>	Tall Oregon Grape
<i>Amelanchier alnifolia</i>	Saskatoon
<i>Symphoricarpos albus</i>	Common snowberry
<i>Rosa nutkana</i>	Nootka Rose
<i>Ribes sanguineum</i>	Red flowering currant
<i>Philadelphus lewisii</i>	Mock orange
<i>Holodiscus discolor</i>	Ocean spray

The proposed development appears to represent minimal potential to result in new impacts within the Marine Foreshore DPA.

Please contact us if you require any additional information.

Sincerely,  
Steve Toth, R.P.Bio.



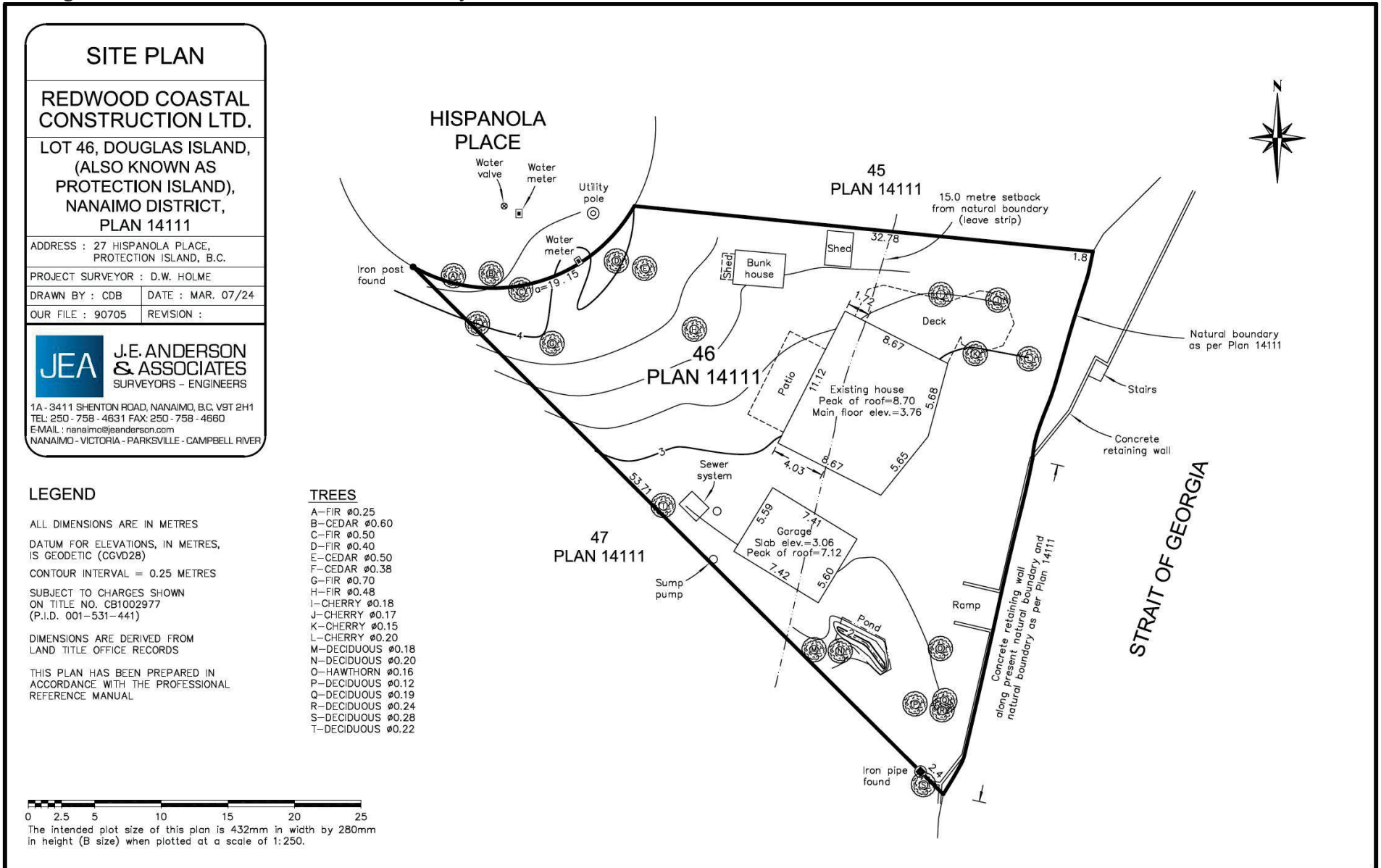
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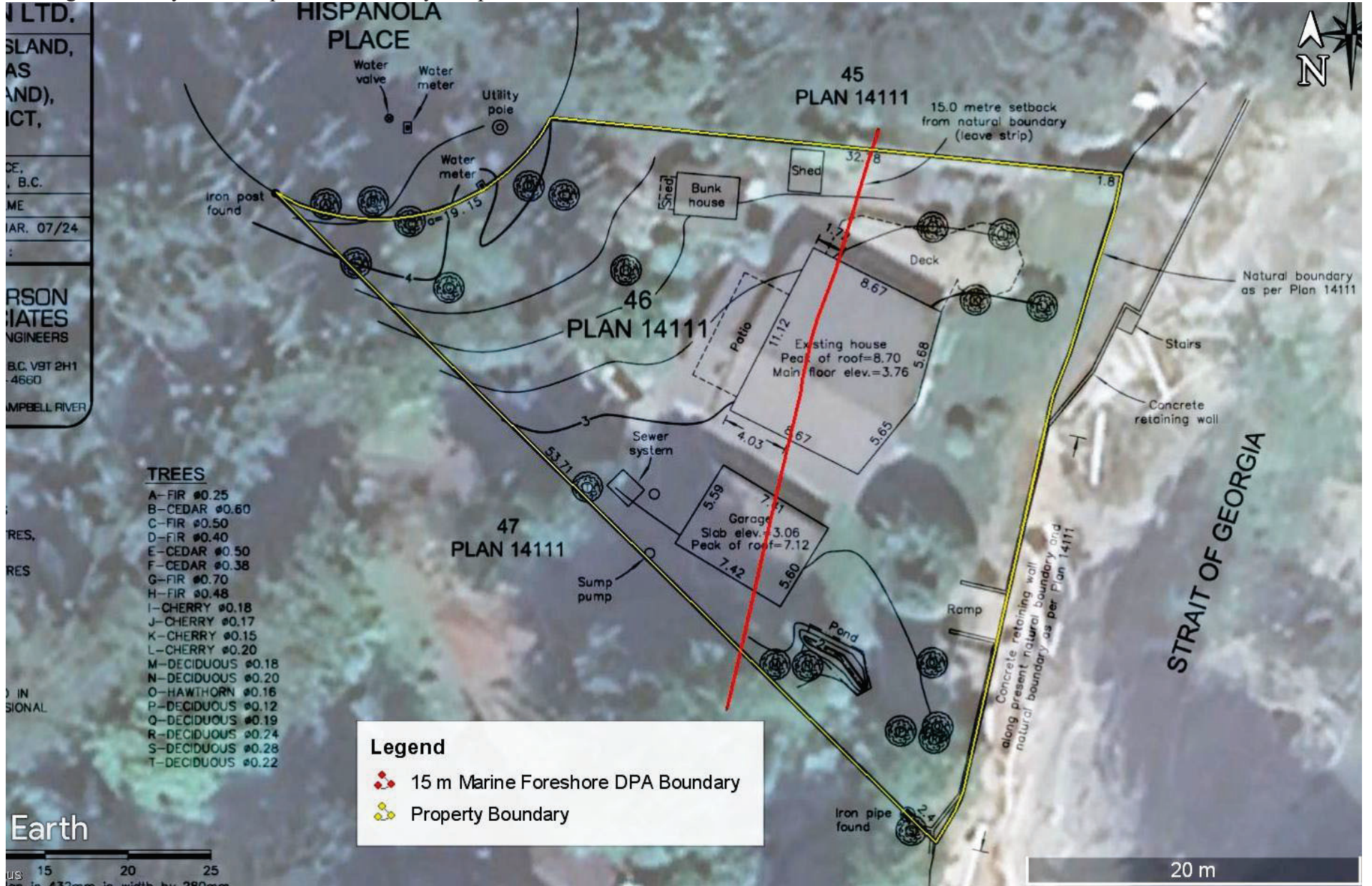
Figure 1. J.E. Anderson & Associates Survey Site Plan





Assessment of proposed development within the Marine Foreshore DPA on 27 Hispanola Place, Protection Island

Figure 2. May 2023 air photo with survey site plan overlaid



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Table 1. City of Nanaimo's Marine Foreshore DPA Guidelines

<b>Guideline</b>	<b>Comments / Recommendations</b>
Where disturbance within an <i>ESA</i> or <i>ESA leave strip</i> cannot be avoided, the following information must be provided to support the DPA1 development permit application in order to ensure protection, connectivity and increased functional habitat through mitigation, compensation and restoration of the <i>ESA</i> :	The subject property consists of a 0.1 ha previously developed oceanfront lot. The existing house and garage are within the 15 m DPA and were built with an approved variance. The DPA outside of the building footprints consists of manicured landscaping, decks, flagstone, gravel and lawn. A concrete retaining wall forms the natural boundary.
a) A detailed biophysical assessment of the property, prepared by a <i>Qualified Registered Professional</i> .	Due to the small size and developed nature of the property there were minimal natural biophysical features to assess.
b) A survey, completed by a registered BC Land Surveyor, of the <i>ESA</i> and <i>ESA leave strip</i> area.	JE Anderson & Associates survey plan is provided as Figure 1.
c) A <i>Riparian Areas Protection Regulation</i> (RAPR) assessment report prepared by a <i>Qualified Registered Professional</i> where applicable.	Not applicable. There are no freshwater watercourses on or adjacent to the subject property.
d) An assessment of the proposed development's impact to the site hydrology completed by a <i>Qualified Registered Professional</i> .	The proposed development is largely related to renovations to the existing dwelling. Site hydrology will not be altered by the proposed development.
e) An Executive Summary of the required strategy and recommended measures to protect the <i>ESA</i> prior to site disturbance, during the construction process and post construction must be included in the <i>Qualified Registered Professional</i> assessment.	As this report is so short, we hope that the City will consider it in lieu of an executive summary.
f) A restoration and enhancement management plan and detailed cost estimate for any restoration works, prepared by a <i>Qualified Registered Professional</i> , for the disturbed portion of the <i>ESA</i> and <i>ESA leave strip</i> . The plan shall meet the following criteria: i. include restoration and enhancement of <i>ESAs</i> that were impacted by previous development activities; ii. utilize vegetation that is indigenous to Vancouver Island; and iii. meet or exceed the landscaping and maintenance requirements in Part 14 of the City of Nanaimo <i>Manual of Engineering Standards and Specifications</i> (MoESS), as amended from time to time.	Kinship Design has prepared a restoration / landscape plan for the proposed development. We have provided a list of native marine coast plants for use in the landscape design.
g) The principle of net gain will be followed, and a <i>Qualified Registered Professional</i> must demonstrate how an increase in the quality and quantity of functional habitat within the <i>ESA</i> and <i>ESA leave strip</i> will be achieved once the proposed development is complete, such that any areas restored shall be of better ecological value, and shall be contiguous with the original <i>ESA</i> and <i>ESA leave strip</i> . The following principles will apply to establishing net gain: i. Outcomes through habitat creation, enhancement, and/or restoration; ii. Target condition (functional habitat in 20 years); and iii. Target metric (twice the area of encroachment into the leave strip).	The ability to meet the target metric is difficult due to the amount of existing development within the DPA. However, we believe that the outcome of the landscape plan will result in a net gain in functional habitat within the DPA.
To protect the <i>ESA</i> the following will be required: a) Prior to site clearing and construction: i. permanent fencing shall be installed to sufficiently protect the <i>ESA</i> from	As the 15 m DPA runs through the existing house and the detached garage there is no ability to fence the boundary of the 15 m DPA. As indicated in the site photographs, the subject property is largely flat and level. The



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<b>Guideline</b>	<b>Comments / Recommendations</b>
<p>construction and development activity;</p> <p>ii. the fencing must have signage that identifies the area as an environmentally sensitive area;</p> <p>iii. runoff, erosion and sediment control must be installed adjacent to the <i>ESA leave strip</i>; and</p> <p>iv. demarcation of wildlife corridors, wildlife trees, and significant trees as identified in the <i>Tree Bylaw</i> may also be required.</p>	<p>potential for the proposed renovations to result in sediment in run-off is essentially nil. There are no wildlife corridors or wildlife trees within the 15 m DPA on the subject property. The only native trees within the 15 m DPA are 2 Pacific crabapple trees and 4 trembling aspen trees in the southeast corner of the property. As these trees are located within a DPA they are considered "Protected Trees" under the tree bylaw.</p>
<p>b) Provision shall be made, and works undertaken, to provide for the disposal of surface runoff and stormwater flowing over the land, contributed by either the proposed development or past development. Such works shall be required to divert drainage away from areas subject to sloughing. Post development surface flow and groundwater must be maintained in volume and direction.</p>	<p>The potential for the proposed renovations to result in sediment in run-off is essentially nil. There are no areas subject to sloughing on the property and rainwater from rock pits / rain-leaders will continue to be directed to a small retention pond area in the southeast corner of the property.</p>
<p>c) Restricting development activity during sensitive life cycle times, as determined by a <i>Qualified Registered Professional</i> and following the Develop With Care – Environmental Guidelines for Urban and Rural Land Development in British Columbia as prepared by the Province and amended from time to time.</p>	<p>As the proposed works are largely related to interior renovations and replacement of the oceanfront side of the house, there is minimal potential that the works will conflict with wildlife or nesting birds.</p>
<p>d) The property owner or applicant will retain a <i>Qualified Registered Professional</i> to monitor and inspect the site during construction and during site restoration, for the duration of the project and the specified maintenance period, which will be the greater of three years from completion of restoration and enhancement, or as recommended by the <i>Qualified Registered Professional</i>. Post-completion monitoring and inspection reports will be provided to the City on a regular basis at a minimum of once every six months, or more frequently if recommended by the <i>Qualified Registered Professional</i>.</p>	<p>Considering the minor nature of the proposed works and that they are primarily interior renovations, we do not see a need for monitoring during construction. We would recommend that a post-completion site visit be conducted to document that the restoration / landscape plan has been successfully implemented. We also suggest that the twice annual monitoring &amp; reporting requirements over the 3 year maintenance period represents a significant financial burden, and that the monitoring may be able to be conducted remotely via site photos provided by the landowners, with a final inspection after 3 years.</p>
<p>e) Indigenous trees and vegetation, as well as their root zones, within the <i>ESA</i> and <i>ESA leave strip</i> should not be cut, pruned, altered, removed or damaged.</p>	<p>The proposed project will not require removal or root zone disturbance of native trees or native vegetation. A large non-native hedge cedar (Photograph 2) will be removed as it occupies a large area that will be restored under the landscape plan.</p>
<p>f) Development should be located in the least environmentally sensitive areas, such as previously disturbed areas, to minimize impact on the ecology of the <i>ESA</i> and the <i>ESA leave strip</i>.</p>	<p>The development will be largely within the existing footprint of the existing dwelling.</p>
<p>g) Maintaining the connectivity of forested corridors is a priority and is strongly encouraged.</p>	<p>The proposed project will not require removal or root zone disturbance of native trees or native vegetation.</p>
<p>h) The 'green shores' principles and guidelines in the Stewardship Centre for British Columbia's Green Shores for Home shall be applied to minimize impacts to the marine foreshore area.</p>	<p>The project does not involve works on or below the present natural boundary.</p>
<p>i) Gravel, sand, <i>soils</i>, and peat must not be removed from the <i>ESA</i>, or <i>ESA leave strip</i>, and <i>soil</i> or other <i>fill</i> must not be deposited in the <i>ESA</i> or <i>ESA leave</i></p>	<p>The project does not require fill placement or soil removal.</p>

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Guideline	Comments / Recommendations
<i>strip.</i>	
j) ESAs and <i>ESA leave strips</i> must not be impacted by blasting or run-off of sediments and construction-related contaminants.	The project does not require blasting, and should not result in run-off. All potentially windblown construction materials should be collected and stored properly to prevent these materials from being deposited in the marine environment.
k) To ensure long-term protection of the <i>ESA</i> and <i>ESA leave strip</i> , the registration of a <i>Land Title Act</i> Section 219 covenant on the title of the property may be required.	Registration of a restrictive covenant is likely unnecessary, but is at the discretion of the City.
l) Varying or relaxing other bylaw requirements (e.g., building setbacks, building height, or parking requirements) will be considered to facilitate safeguarding an <i>ESA</i> and <i>ESA leave strip</i> , particularly where the relaxation can make possible the development of the remainder of the lot, while avoiding disturbance within the <i>ESA</i> and <i>ESA leave strip</i> .	It is our understanding that a variance was already granted for the siting of the existing dwelling.

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Photograph 1. April 9, 2024. View south – north along the east (oceanfront) side of the house.



Photograph 2. View north – south through the Marine Foreshore DPA with large non-native hedge cedar in background.



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Photograph 3. View to Pacific crabapple and Trembling aspens in the southeast corner of the property.



Photograph 4. View north – south along seawall forming natural boundary.



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Photograph 5. View of wood deck, ornamental cherry trees and landscaping along the north side of the house.