

DATE OF MEETING December 18, 2017

AUTHORED BY DAVE STEWART, PLANNER, CURRENT PLANNING AND SUBDIVISION

**SUBJECT DEVELOPMENT PERMIT APPLICATION NO. DP1080 – 3062 HAMMOND BAY ROAD**

## OVERVIEW

### **Purpose of Report**

To present for Council’s consideration a development permit application to allow landscape alterations, including an outdoor kitchen, within the watercourse setback.

### **Recommendation**

That Council issue Development Permit No. DP1080 at 3062 Hammond Bay Road with the following variance:

- reduce the watercourse setback measured from the natural boundary of the ocean from 15m to 7.1m. .

## BACKGROUND

A development permit application, DP1080, was received from Pheasant Hill Homes Ltd. on behalf of Shujing Mao to permit landscape alterations, including an outdoor kitchen, within 15m of the natural boundary of the ocean.

### **Subject Property**

Zoning	R1 – Single Dwelling Residential
Location	The subject property is located on Hammond Bay Road with shoreline along the north side of Departure Bay.
Total Area	1,212m <sup>2</sup>
Official Community Plan	Map 1 – Future Land Use – Neighbourhood; Map 3 – Development Permit Area No. 2 – Environmentally Sensitive Areas

The subject property includes a single residential dwelling accessed from Hammond Bay Road and is included within the Departure Bay Neighbourhood Association boundaries. The existing single residential dwelling is non-conforming in siting and is located approximately 13m from the natural boundary of the ocean, a 2m intrusion into the required watercourse setback.

The aquatic setback area of the subject property includes four existing landscape components:

- lawn area to the rear of the house and single residential dwelling intrusion;
- sloped area adjacent to the ocean with invasive plants;
- coastal bluff Garry oak ecosystem with native and invasive plants; and,
- two existing beach accesses.

## **DISCUSSION**

### **Proposed Development**

The landowners would like to undertake the following improvements within the 15m development permit area:

- construct a new patio with an outdoor kitchen and foot wash area in the rear yard;
- repair two existing beach access staircases and install new handrails;
- replace the existing fence with a new chain link fence in the rear yard and along the west property line in the location shown on Attachment C;
- replace a failing retaining wall with a new rock retaining wall along the top of the slope at the east side of the property; and,
- implement an extensive landscape management plan for the rear yard area, including invasive species removal and restoration with native plant species.

The proposed 23m<sup>2</sup> outdoor kitchen/patio will be located within the existing lawn area and will not require the removal of any native vegetation. The patio area will be constructed with permeable materials. As part of the proposed landscape restoration, the owner will replace the grass lawn with clover, a drought-tolerant plant that requires no fertilization. In addition to the patio area, the owners will repair two existing beach accesses that lead to separate, isolated beaches. The Qualified Environmental Professional states repairs to the beach accesses will ensure safe access to the beach and will be contained within the footprint of the existing stairs.

To compensate for the landscape alterations within the development permit area, landscape restoration will be required. The restoration plan involves the removal of all invasive species and re-vegetation of the watercourse setback area with native species characteristic of a coastal bluff Garry oak ecosystem. A five-year maintenance period will be required to ensure the eradication of invasive species and establishment of native plant species within both the slope and coastal bluff landscape.

The proposed landscape restoration will restore the coastal bluff ecosystem and will significantly improve the ecological function of the coastal area with no net loss of habitat.

### **Proposed Variances**

#### *Minimum Watercourse Setback*

The required water setback is 15m, measured from the natural boundary of the ocean. The proposed outdoor kitchen and patio is to be located 7.1m from the natural boundary, a proposed variance of 7.9m. The existing house is setback 13m from the natural boundary.

Staff support the proposed variance and landscaping improvements, which will restore a significant coastal bluff ecosystem and improve the ecological function of the coastal area with no net loss of habitat.

For more information, see the Attachments.

### **SUMMARY POINTS**

- Development Permit Application No. DP1080 proposes a watercourse setback variance to permit an outdoor kitchen and landscape alternations.
- The proposed landscape restoration plan includes invasive species removal and replanting with native species characteristic of the coastal bluff Garry oak landscape.
- The proposed restoration plan will significantly improve the coastal bluff ecosystem and will result in no net loss of habitat.

### **ATTACHMENTS**

ATTACHMENT A: Permit Conditions  
ATTACHMENT B: Location Plan  
ATTACHMENT C: Landscape Plan  
ATTACHMENT D: Environmental Assessment  
ATTACHMENT E: Aerial Photo

#### **Submitted by:**

L. Rowett, Manager  
Current Planning and Subdivision

#### **Concurrence by:**

D. Lindsay, Director  
Community Development

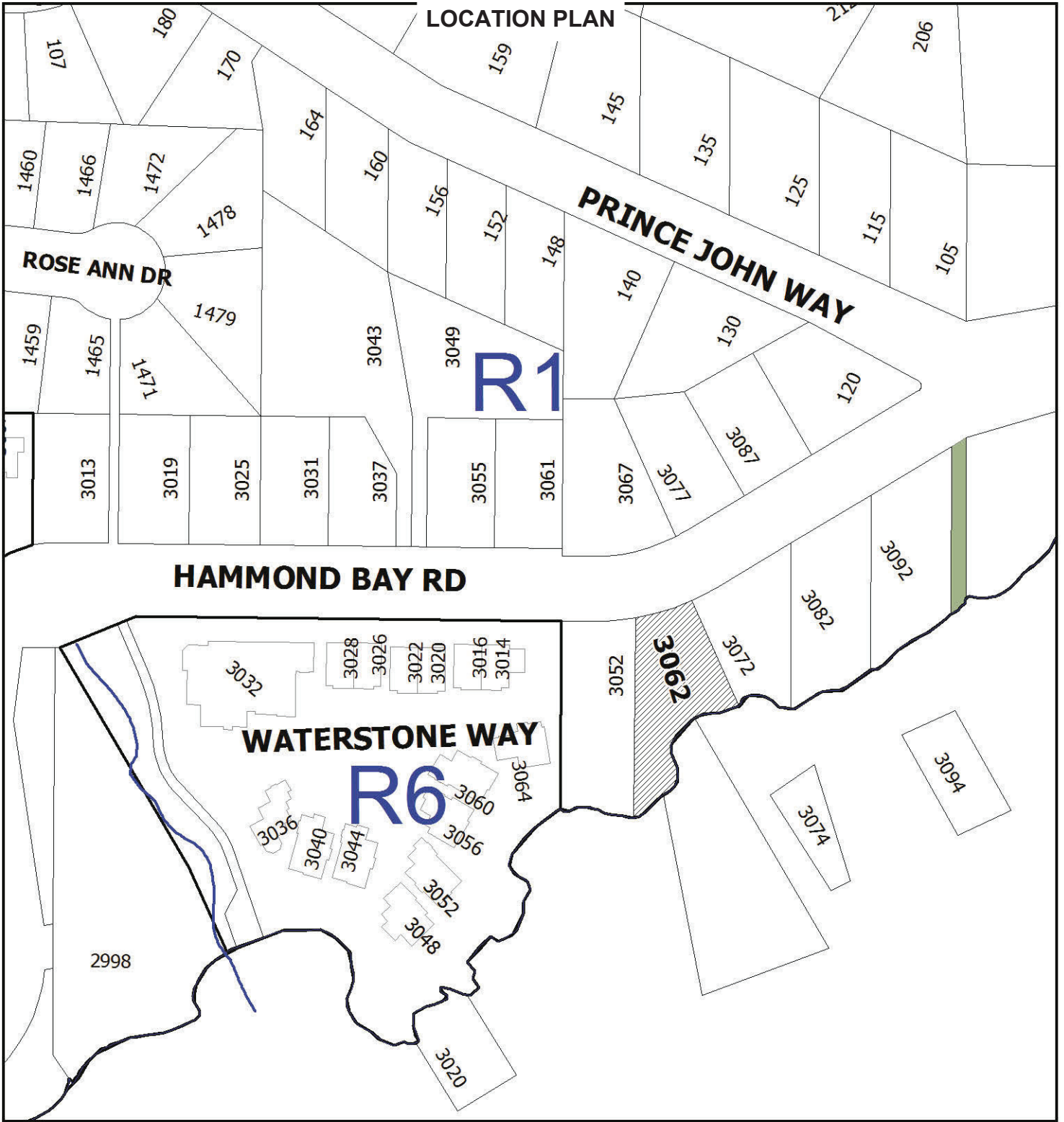
## **ATTACHMENT A PERMIT CONDITIONS**

### **CONDITIONS OF PERMIT**

1. The riparian area improvements shall be completed in substantial compliance with the Landscape Plan prepared by Pheasant Hill Homes Ltd. dated 2017-NOV-30 as shown on Attachment C.
2. A permanent fence shall be installed as per the landscape plan prepared by Pheasant Hill Homes Ltd. dated 2017-NOV-30 as shown on Attachment C.
3. The subject property shall be developed generally in accordance with the environmental assessment prepared by Toth and Associates Environmental Services dated 2017-NOV-30 as shown on Attachment D.
4. A landscape bond is required for 100% of the landscape estimate prepared by Pheasant Hill Homes Ltd., and contained in the Landscape Plan dated 2017-NOV-30 as shown on Attachment C.
5. A five-year maintenance period with two assessments per year is required. A certified letter of completion is required from the Qualified Environmental Professional at the end of the five-year maintenance period.
6. The applicant is to obtain the necessary provincial approvals for any improvements that are located within the foreshore area.



**ATTACHMENT B  
LOCATION PLAN**



DEVELOPMENT PERMIT NO. DP001080

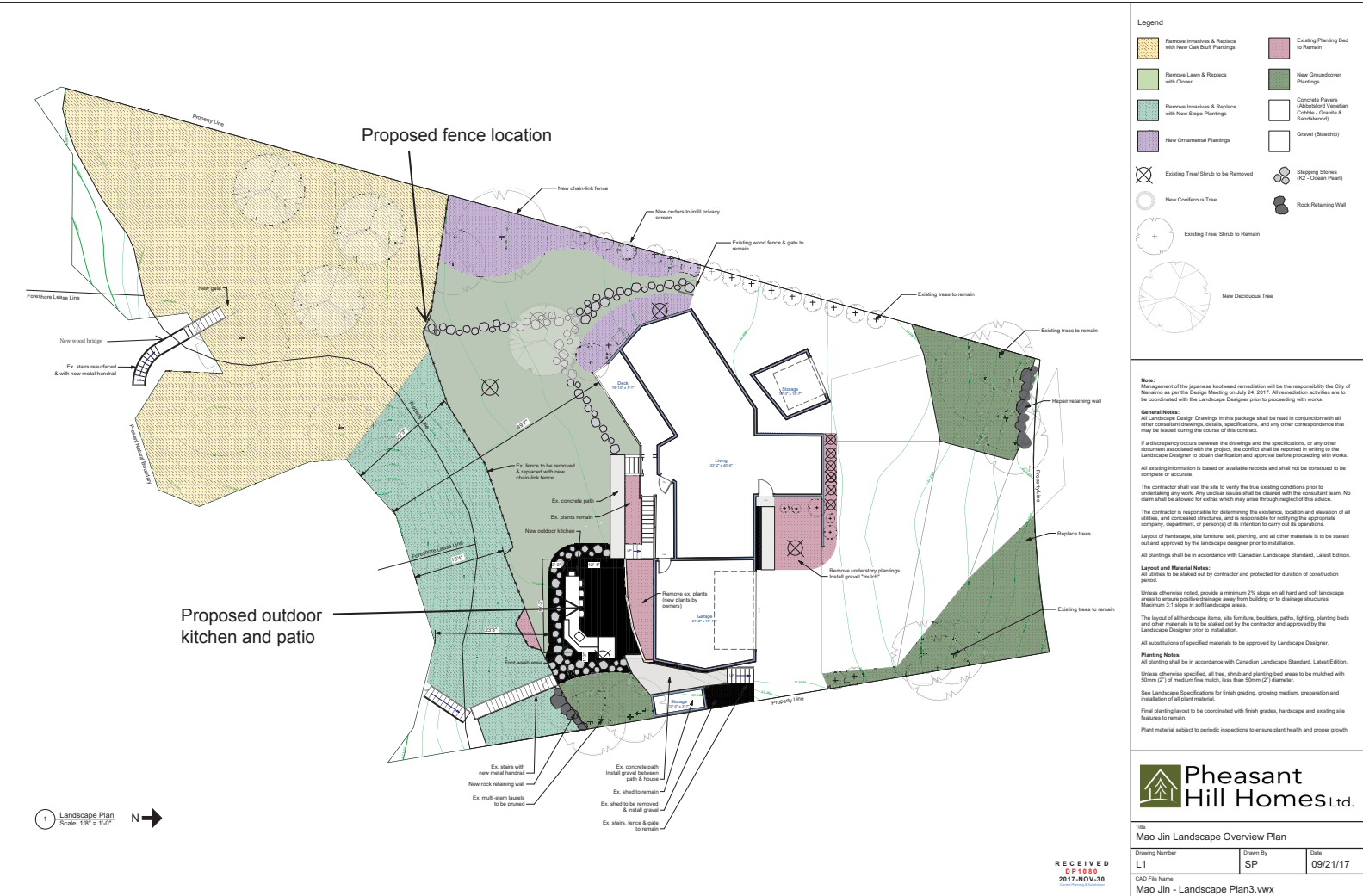


**LOCATION PLAN**

 **Subject Property**

Civic: 3062 Hammond Bay Road  
Lot 2, Section 9, Wellington District,  
Plan 13866

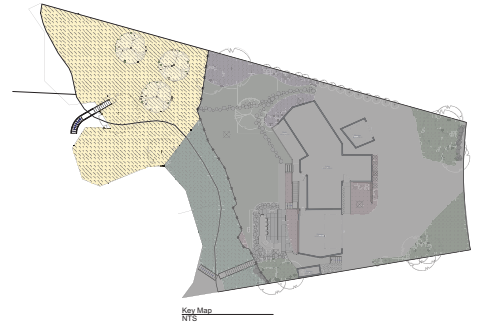
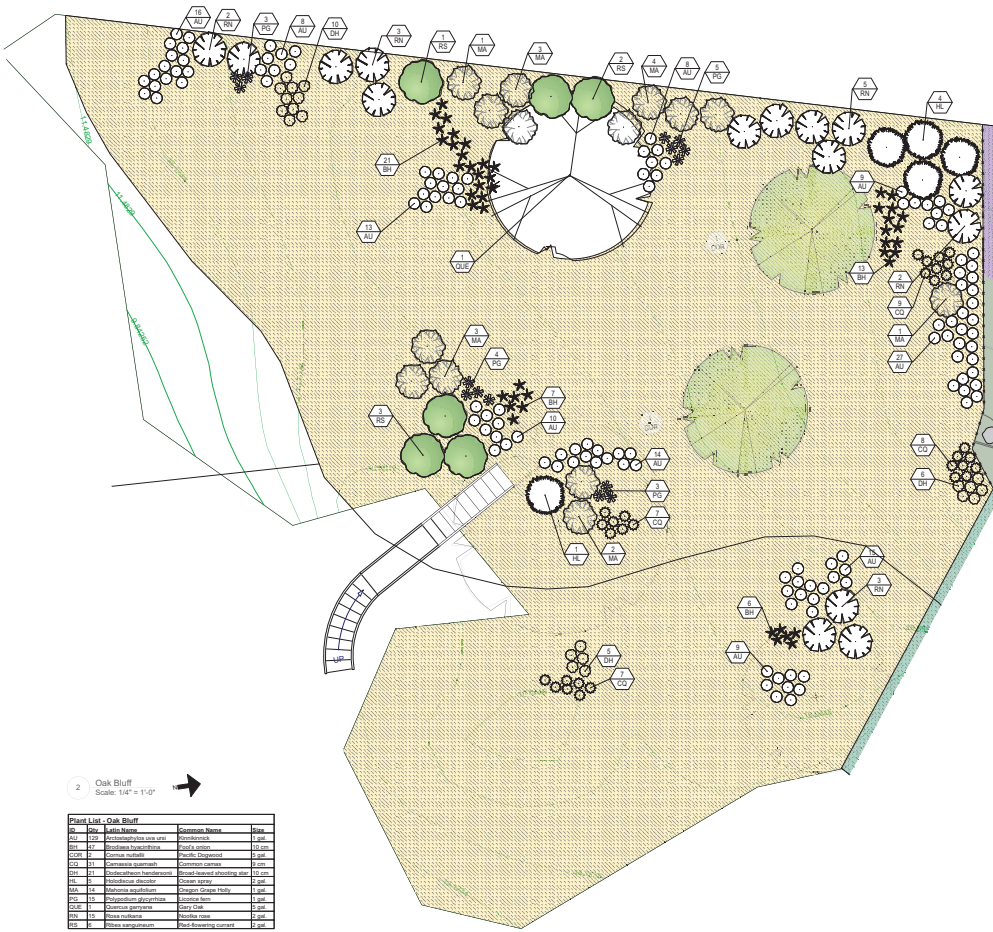
# ATTACHMENT C LANDSCAPE PLAN



**Pheasant Hill Homes Ltd.**

Title: **Mao Jin Landscape Overview Plan**

Drawing Number: <b>L1</b>	Drawn By: <b>SP</b>	Date: <b>09/21/17</b>
CADD File Name: <b>Mao Jin - Landscape Plan3.vwx</b>		



2 Oak Bluff  
Scale: 1/4" = 1'-0"

Pl. No.	Latin Name	Common Name	Qty
10 10	Asplenium nidus	Rock-rose	10 ea
10 11	Asplenium nidus	Rock-rose	10 ea
10 12	Asplenium nidus	Rock-rose	10 ea
10 13	Asplenium nidus	Rock-rose	10 ea
10 14	Asplenium nidus	Rock-rose	10 ea
10 15	Asplenium nidus	Rock-rose	10 ea
10 16	Asplenium nidus	Rock-rose	10 ea
10 17	Asplenium nidus	Rock-rose	10 ea
10 18	Asplenium nidus	Rock-rose	10 ea
10 19	Asplenium nidus	Rock-rose	10 ea
10 20	Asplenium nidus	Rock-rose	10 ea
10 21	Asplenium nidus	Rock-rose	10 ea
10 22	Asplenium nidus	Rock-rose	10 ea
10 23	Asplenium nidus	Rock-rose	10 ea
10 24	Asplenium nidus	Rock-rose	10 ea
10 25	Asplenium nidus	Rock-rose	10 ea
10 26	Asplenium nidus	Rock-rose	10 ea
10 27	Asplenium nidus	Rock-rose	10 ea
10 28	Asplenium nidus	Rock-rose	10 ea
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10 62	Asplenium nidus	Rock-rose	10 ea
10 63	Asplenium nidus	Rock-rose	10 ea
10 64	Asplenium nidus	Rock-rose	10 ea
10 65	Asplenium nidus	Rock-rose	10 ea
10 66	Asplenium nidus	Rock-rose	10 ea
10 67	Asplenium nidus	Rock-rose	10 ea
10 68	Asplenium nidus	Rock-rose	10 ea
10 69	Asplenium nidus	Rock-rose	10 ea
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10 95	Asplenium nidus	Rock-rose	10 ea
10 96	Asplenium nidus	Rock-rose	10 ea
10 97	Asplenium nidus	Rock-rose	10 ea
10 98	Asplenium nidus	Rock-rose	10 ea
10 99	Asplenium nidus	Rock-rose	10 ea
10 100	Asplenium nidus	Rock-rose	10 ea

**Notes:**  
Management of the Japanese Knotweed remediation will be the responsibility of the City of Nanaimo as per the Change Meeting on July 24, 2017. All remediation activities are to be coordinated with the Landscape Designer prior to proceeding with works.

**General Notes:**  
All Landscaping Design Drawings in this package shall be read in conjunction with all other construction drawings, details, specifications, and any other correspondence that may be issued during the course of this contract.

If a discrepancy occurs between the drawings and the specifications, or any other document associated with the project, the conflict shall be reported in writing to the Landscape Designer to obtain clarification and approval before proceeding with works.

All existing information is based on available records and shall not be construed to be complete or accurate.

The contractor shall visit the site to verify the true existing conditions prior to undertaking any work. Any unclear issues shall be cleared with the consultant team. No claim shall be allowed for extras which may arise through neglect of this which.

The contractor is responsible for determining the existence, location and elevation of all utilities and concealed structures, and is responsible for notifying the appropriate company, department, or persons of its intention to carry out its operations.

Layout of hardscape, site furniture, soil, planting, and all other materials is to be staked out and approved by the landscape designer prior to installation.

All plantings shall be in accordance with Canadian Landscape Standard, Latest Edition.

**Layout and Material Notes:**  
All utilities to be staked out by contractor and protected for duration of construction period.

Unless otherwise noted, provide a minimum 2% slope on all hard and soft landscape areas to ensure positive drainage away from building or to drainage structures. Maximum 3:1 slope in soft landscape areas.

The removal of all hardscape areas, site furniture, building, utility, lighting, planting beds and other materials is to be staked out by the contractor and approved by the Landscape Designer prior to installation.

All substitutions of specified materials to be approved by Landscape Designer.

**Planting Notes:**  
All planting shall be in accordance with Canadian Landscape Standard, Latest Edition.

Unless otherwise specified, all tree, shrub and planting bed areas to be mulched with 50mm (2") of medium fine mulch, less than 50mm (2") diameter.

See Landscape Specifications for finish grading, growing medium, preparation and installation of all plant material.

Final planting layout to be coordinated with finish grades, hardscape and existing site features to remain.

Plant material subject to periodic inspections to ensure plant health and proper growth.

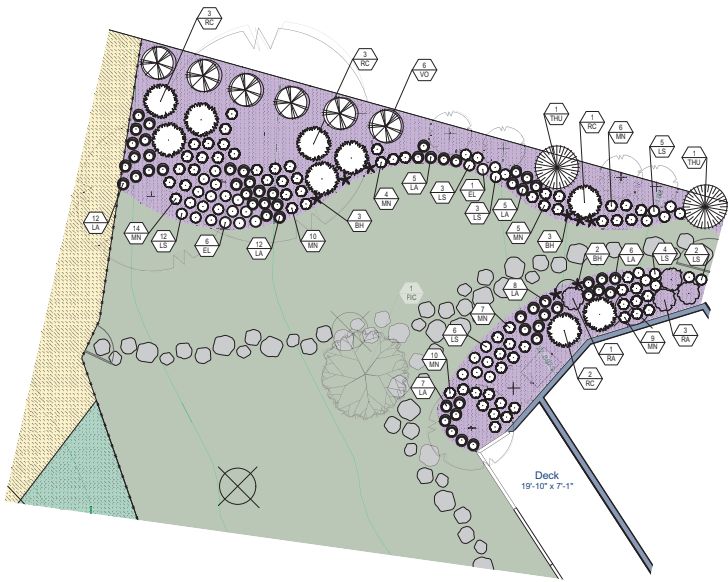
**Pheasant Hill Homes Ltd.**

Title:  
Mao Jin Planting Plan - Oak Bluff

Drawing Number: L2  
Screen By: SP  
Date: 09/21/17

FILE NAME:  
Mao Jin - Landscape Plan3.vwx

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DP 1080  
2017-MOV-38



3 Ornamental  
Scale: 1/4" = 1'-0"

Plant List - Ornamental	Plant Name	Quantity
1A	Red Maple	1
1B	Blackberry	1
1C	Blackberry	1
1D	Blackberry	1
1E	Blackberry	1
1F	Blackberry	1
1G	Blackberry	1
1H	Blackberry	1
1I	Blackberry	1
1J	Blackberry	1
1K	Blackberry	1
1L	Blackberry	1
1M	Blackberry	1
1N	Blackberry	1
1O	Blackberry	1
1P	Blackberry	1
1Q	Blackberry	1
1R	Blackberry	1
1S	Blackberry	1
1T	Blackberry	1
1U	Blackberry	1
1V	Blackberry	1
1W	Blackberry	1
1X	Blackberry	1
1Y	Blackberry	1
1Z	Blackberry	1

**Notes:**  
Management of the Japanese Knotweed remediation will be the responsibility of the City of Nanaimo as per the Design Meeting on July 24, 2017. All remediation activities are to be coordinated with the Landscape Designer prior to proceeding with works.

**General Notes:**  
All Landscaping Design Drawings in this package shall be read in conjunction with all other construction drawings, details, specifications, and any other correspondence that may be issued during the course of this contract.

If a discrepancy occurs between the drawings and the specifications, or any other document associated with the project, the conflict shall be reported in writing to the Landscape Designer to obtain clarification and approval before proceeding with works.

All existing information is based on available records and shall not be construed to be complete or accurate.

The contractor shall visit the site to verify the true existing conditions prior to undertaking any work. Any unclear issues shall be cleared with the consultant team. No claim shall be allowed for extras which may arise through neglect of this notice.

The contractor is responsible for determining the existence, location and elevation of all utilities, and concealed structures, and is responsible for notifying the appropriate company, department, or person(s) of its intention to carry out its operations.

Layout of hardscape, site furniture, soil, planting, and all other materials is to be staked out and approved by the landscape designer prior to installation.

All plantings shall be in accordance with Canadian Landscape Standard, Latest Edition.

**Layout and Material Notes:**  
All utilities to be staked out by contractor and protected for duration of construction period.

Unless otherwise noted, provide a minimum 2% slope on all hard and soft landscape areas to ensure positive drainage away from building or to drainage structures. Maximum 3:1 slope in soft landscape areas.

The service of all hardscape areas, site furniture, building, utility, lighting, planting beds and other materials is to be staked out by the contractor and approved by the Landscape Designer prior to installation.

All substitutions of specified materials to be approved by Landscape Designer.

**Planting Notes:**  
All planting shall be in accordance with Canadian Landscape Standard, Latest Edition. Unless otherwise specified, all tree, shrub and planting bed areas to be mulched with 50mm (2") of medium fine mulch, see Item 02050 (7) elsewhere.

See Landscaping Specifications for finish grading, hardscape and existing site features to remain.

Final planting layout to be coordinated with finish grades, hardscape and existing site features to remain.

Plant material subject to periodic inspections to ensure plant health and proper growth.

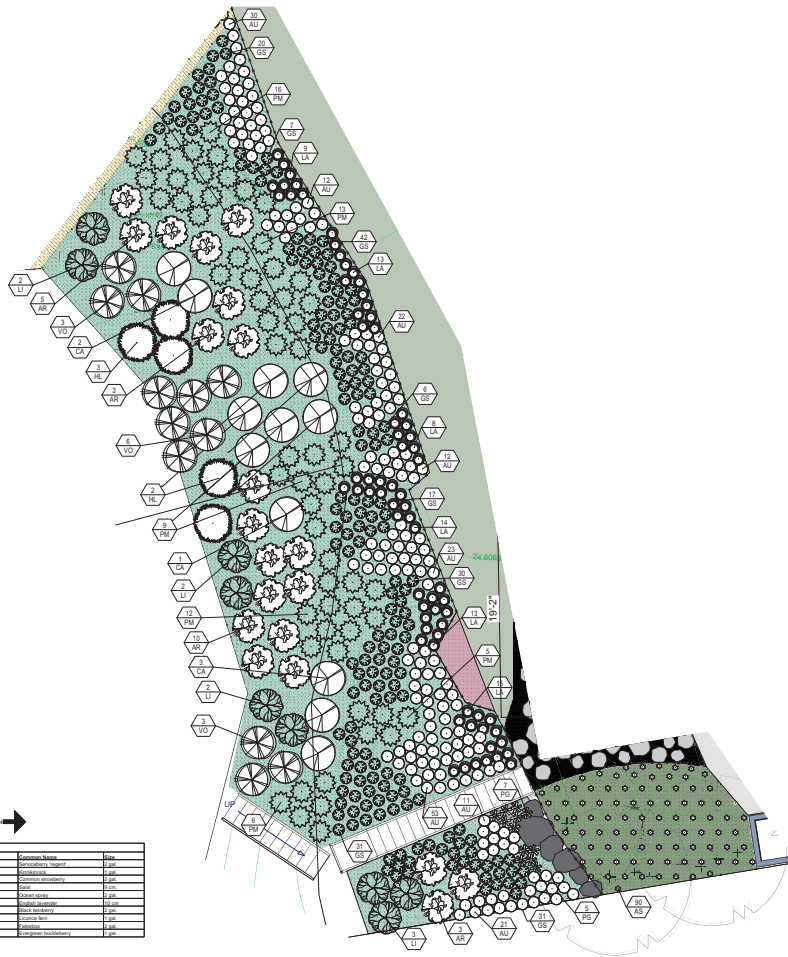
**Pheasant Hill Homes Ltd.**

Title: Mao Jin Planting Plan - Ornamental

Drawing Number: L3  
 Screen By: SP  
 Date: 09/21/17

3007 File Name: Mao Jin - Landscape Plan3.vwx

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DP 1080  
2017-NOV-30



Key Map  
NTS

4 Slope  
Scale: 1/4" = 1'-0"

Plant List - Shrub	Quantity	Notes
1. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
2. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
3. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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7. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
8. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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66. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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68. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
69. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
70. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
71. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
72. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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74. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
75. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
76. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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81. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
82. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
83. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
84. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
85. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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91. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
92. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
93. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
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99. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100
100. 1/2" x 1/2" x 1/2" x 1/2" x 1/2" x 1/2"	100	100

**Notes:**  
Management of the Japanese Anemone remediation will be the responsibility of the City of Nanaimo as per the Design Meeting on July 24, 2017. All remediation activities are to be coordinated with the Landscape Designer prior to proceeding with works.

**General Notes:**  
All Landscape Design Drawings in this package shall be read in conjunction with all other contract drawings, details, specifications, and any other correspondence that may be issued during the course of this contract.

If a discrepancy occurs between the drawings and the specifications, or any other document associated with the project, the conflict shall be reported in writing to the Landscape Designer to obtain clarification and approval before proceeding with works.

All existing information is based on available records and shall not be construed to be complete or accurate.

The contractor shall visit the site to verify the true existing conditions prior to undertaking any work. Any unclear issues shall be cleared with the consultant team. No claim shall be allowed for errors which may arise through neglect of this advice.

The contractor is responsible for determining the existence, location and elevation of all utilities, and concealed structures, and is responsible for notifying the appropriate company, department, or persons(s) of its intention to carry out its operations.

Layout of hardscape, site furniture, soil, planting, and all other materials is to be staked out and approved by the landscape designer prior to installation.

All plantings shall be in accordance with Canadian Landscape Standard, Latest Edition.

**Layout and Material Notes:**  
All utilities to be staked out by contractor and protected for duration of construction period.

Unless otherwise noted, provide a minimum 2% slope on all hard and soft landscape areas to ensure positive drainage away from building or to drainage structures. Minimum 3:1 slope in soft landscape areas.

The service of all hardscape areas, site furniture, building, utility, lighting, planting beds and other materials is to be staked out by the contractor and approved by the Landscape Designer prior to installation.

All substitutions of specified materials to be approved by Landscape Designer.

**Planting Notes:**  
All planting shall be in accordance with Canadian Landscape Standard, Latest Edition. Unless otherwise specified, all tree, shrub and planting bed areas to be mulched with 50mm (2") of medium fine mulch, see Item 50000 (7) elsewhere.

See Landscape Specifications for finish grading, growing medium, preparation and installation of all plant material.

Final planting layout to be coordinated with finish grades, hardscape and existing site features to remain.

Plant material subject to periodic inspections to ensure plant health and proper growth.

**Pheasant Hill Homes Ltd.**

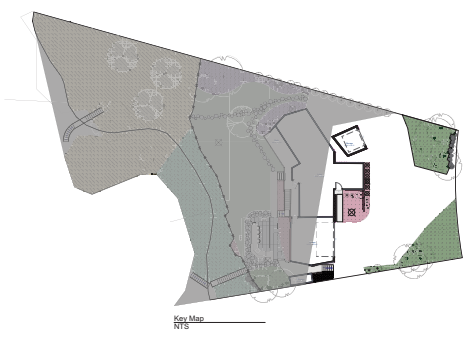
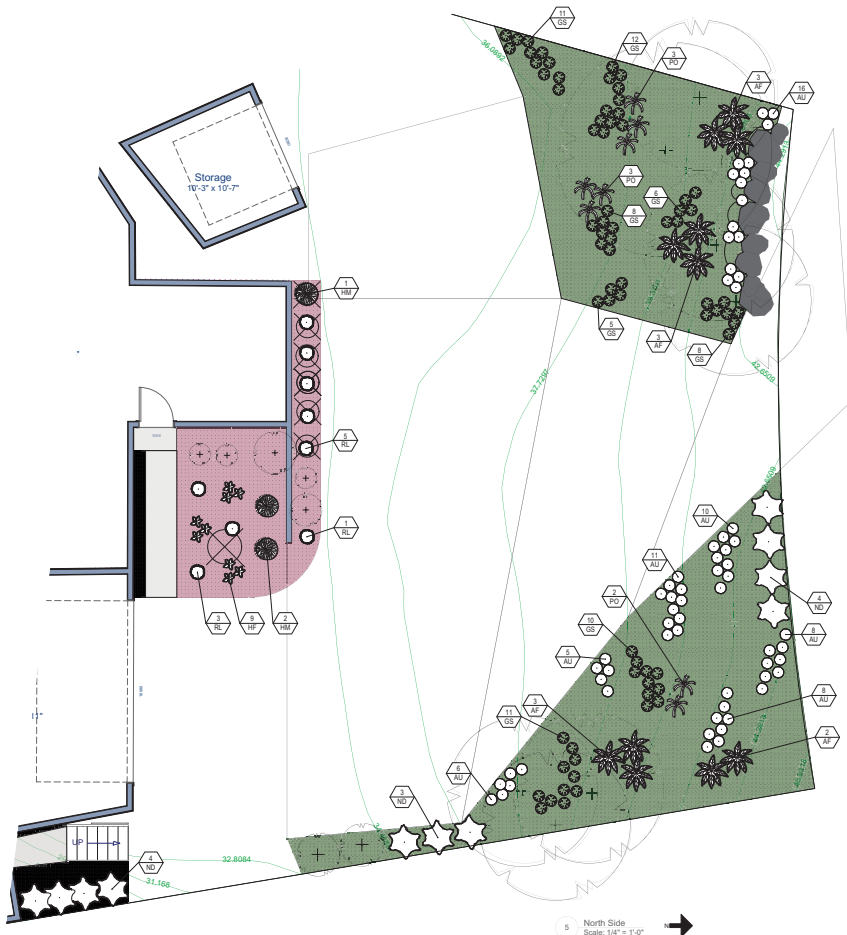
Title: Mao Jin Planting Plan - Slope

Drawing Number: L4  
 Drawn By: SP  
 Date: 09/21/17

2017 File Name: Mao Jin - Landscape Plan3.vwx

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**Notes:**  
 Management of the Spanish Arrozuel remediation will be the responsibility of the City of Naperville as per the Change Meeting on July 24, 2017. All remediation activities are to be coordinated with the Landscape Designer prior to proceeding with works.

**General Notes:**  
 All Landscaping Design Drawings in this package shall be read in conjunction with all other construction drawings, details, specifications, and any other correspondence that may be issued during the course of this contract.

If a discrepancy occurs between the drawings and the specifications, or any other document associated with the project, the conflict shall be reported in writing to the Landscape Designer to obtain clarification and approval before proceeding with works.

All existing information is based on available records and shall not be construed to be complete or accurate.

The contractor shall visit the site to verify the true existing conditions prior to undertaking any work. Any unclear issues shall be cleared with the consultant team. No claim shall be allowed for errors which may arise through neglect of this which.

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Layout of hardscape, site furniture, soil, planting, and all other materials is to be staked out and approved by the landscape designer prior to installation.

All plantings shall be in accordance with Canadian Landscape Standard, Latest Edition.

**Layout and Material Notes:**  
 All utilities to be staked out by contractor and protected for duration of construction period.

Unless otherwise noted, provide a minimum 2% slope on all hard and soft landscape areas to ensure positive drainage away from building or to drainage structures. Maximum 3:1 slope in soft landscape areas.

The layout of all hardscape areas, site furniture, building, utility, lighting, planting beds and other materials is to be staked out by the contractor and approved by the Landscape Designer prior to installation.

All substitutions of specified materials to be approved by Landscape Designer.

**Planting Notes:**  
 All planting shall be in accordance with Canadian Landscape Standard, Latest Edition. Unless otherwise specified, all tree, shrub and planting bed areas to be mulched with 50mm (2") of medium fine mulch, see Item 50000 (7) elsewhere.

See Landscaping Specifications for finish grading, growing medium, preparation and installation of all plant material.

Final planting layout to be coordinated with finish grades, hardscape and existing site features to remain.

Plant material subject to periodic inspections to ensure plant health and proper growth.

5 North Side  
 Scale: 1/4" = 1'-0"

Plant List - North Side	Approved Plants	Qty
10	Chlorophytum comosum	10
11	Chlorophytum comosum	10
12	Chlorophytum comosum	10
13	Chlorophytum comosum	10
14	Chlorophytum comosum	10
15	Chlorophytum comosum	10
16	Chlorophytum comosum	10
17	Chlorophytum comosum	10
18	Chlorophytum comosum	10
19	Chlorophytum comosum	10
20	Chlorophytum comosum	10
21	Chlorophytum comosum	10
22	Chlorophytum comosum	10
23	Chlorophytum comosum	10
24	Chlorophytum comosum	10
25	Chlorophytum comosum	10
26	Chlorophytum comosum	10
27	Chlorophytum comosum	10
28	Chlorophytum comosum	10
29	Chlorophytum comosum	10
30	Chlorophytum comosum	10
31	Chlorophytum comosum	10
32	Chlorophytum comosum	10
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34	Chlorophytum comosum	10
35	Chlorophytum comosum	10
36	Chlorophytum comosum	10
37	Chlorophytum comosum	10
38	Chlorophytum comosum	10
39	Chlorophytum comosum	10
40	Chlorophytum comosum	10
41	Chlorophytum comosum	10
42	Chlorophytum comosum	10
43	Chlorophytum comosum	10
44	Chlorophytum comosum	10
45	Chlorophytum comosum	10
46	Chlorophytum comosum	10
47	Chlorophytum comosum	10
48	Chlorophytum comosum	10
49	Chlorophytum comosum	10
50	Chlorophytum comosum	10

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**Pheasant Hill Homes Ltd.**

Title: Mao Jin Planting Plan - North Side

Drawing Number: 15  
 Screen By: SP  
 Date: 09/21/17

2017 File Name: Mao Jin - Landscape Plan3.vwx



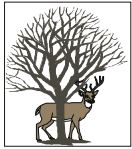
Mao Jin  
Landscape Estimate

12/4/2017

**Project: Mao Jin Landscape**

Description	Details	Code	Estimate
Demolition	Remove invasive plants and trees from aquatic set-back. Remove fence.	1250	\$ 15,000
Fence	New chain-link fence along south and west property lines.	2360	\$ 9,000
Landscaping	Supply and install plants, topsoil, mulch and pathways as specified in detailed landscape plan.	2350	\$ 16,000
<b>Sub-total:</b>			\$ 40,000
GST:			\$ 2,000.00
<b>Total:</b>			\$ 42,000.00

NOTE: This budget is offered for work to be performed on a "Cost-plus" basis, where builder mark-up and GST will be added to all actual costs. While every effort has been made to offer pricing that includes contingencies and adequate allowances, a few variables still exist which may affect final costs. Pheasant Hill Homes Ltd. will reduce costs where possible and improve finishes and update costs where desired by clients.



## **Toth and Associates Environmental Services**

6821 Harwood Drive, Lantzville, B.C. V0R 2H0  
Tel: (250) 390-7602  
E-mail: stoth@shaw.ca

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November 30, 2017

### **Sarah Plamondon**

Pheasant Hill Homes Ltd.  
#101 - 5170 Dunster Road, Suite 524  
Nanaimo, BC V9T 6M4

**Re: Environmental review of proposed redevelopment within the 15 m Coast Setback on 3062 Hammond Bay Road, Nanaimo (PID# 004-428-102).**

### **Introduction**

I, Steve Toth, AScT, R.P.Bio. (Toth and Associates Environmental Services) conducted an assessment of potential environmental impacts and constraints associated with the proposed redevelopment of the 0.30 acre oceanfront property located at 3062 Hammond Bay Road (Figure 1) on January 17, 2017. A meeting with City staff was held on April 25, 2017 and a site meeting was held with City staff and the landowners on May 2, 2017. This report was revised on September 25, 2017 to reflect changes as a result of those meetings.

The current development proposal includes renovation of the existing older residence (Photograph 1) and modifications to the existing yard and landscaping. Section 6.3.1.2. of the City of Nanaimo's Zoning Bylaw (No. 4500, 2015) indicates that "the leave strip adjacent to the sea shall include that area between the water's edge and a perpendicular line inland 15 m from the natural boundary". The existing residence intrudes approximately 2.0 m within the 15 m Ocean setback at the southeast corner of the building with a total intrusion area calculated at 30 m<sup>2</sup> (Figure 2). All of the rear yard area is within the Coast setback.

### **Biophysical Setting**

The subject property is moderately steep with approximately 17% grade between Hammond Bay Road and the south edge of the rear yard, and a nearly vertical slope approximately 6 m in height between the southeast edge of the rear yard (Photograph 2) and present natural boundary (PNB) of the ocean (Photograph 3), transitioning to 3-4 m in the southwest corner of the property. The steep slope between the PNB of the ocean and the fence along the top of slope is heavily vegetated with Pacific ninebark (*Physocarpus capitatus*), Nootka rose (*Rosa nutkana*), and invasive species including Himalayan blackberry (*Rubus discolor*), Japanese knotweed (*Fallopia japonica*), and common periwinkle (*Vinca minor*).

Currently the property is treed with mixed age native Douglas-fir (*Pseudotsuga menziesii*), arbutus (*Arbutus menzeisii*) and Garry oak (*Quercus garryanus*) trees as well as several non-native trees including plum, apple and magnolia (likely *Liriodendron tulipifera*).



The southwest corner of the property contains a small area of Coastal Bluff ecosystem including mature Garry oak trees (Photograph 4), common snowberry (*Symphoricarpos albus*) and tall Oregon-grape (*Mahonia aquifolium*). The Coastal Bluff area also has a heavy infestation of introduced invasive plants (Photograph 5) including St. John's wort (*Hypericum perforatum*), Himalayan blackberry and spurge laurel (*Daphne laureola*).

### **Development Proposal**

As part of the renovations, the landowners would like to undertake several projects within the 15 m Coast setback including:

1. repair two existing beach access stair cases and install new handrails;
2. replace the existing fence along the west property line with a new chain link fence;
3. replace the existing fence along the top of steep slope in the rear yard with a new chain link fence;
4. construct a new patio that will include an outdoor kitchen and foot wash area in the rear yard;
5. install a new rock retaining wall along the top of steep slope at the east side of the property to replace the failing one; and,
6. implement an extensive landscaping plan for the rear yard area including invasive plant species removal and revegetation according to the plan prepared by Pheasant Hill Homes Ltd.

The rear yard area (Photographs 1, 2 and 6) where the proposed outdoor kitchen / patio would be situated is currently composed of lawn. The area of the outdoor kitchen / patio is approximately 23 m<sup>2</sup> (Figure 2). The patio would not require the removal of any native vegetation and would be constructed from pervious pavers and gravel.

The City of Nanaimo's Management and Protection of Trees Bylaw 2013 (No. 7126) allows a landowner to remove a tree, other than a significant tree from that owner's parcel of land, to a maximum total of four (4) trees in a calendar year. This exemption is void where a subdivision or other development permit has been applied for. It is my understanding that the proposed works will include removal of 3 small trees from the Coast setback area including two over-mature, non-producing fruit trees, and an introduced invasive black locust.

### **Invasive Plant Removal**

To compensate for the intrusion into the 15 m Coast setback caused by the outdoor kitchen / patio and achieve a "no net loss" of habitat the owners intend to remove invasive plant species within the Coast setback on the property, including the Coastal Bluff area in the southwest corner of the property and re-vegetate these areas with native species.

At the Design Review Meeting held with the City of Nanaimo on July 24, 2017, the City committed to undertaking or covering the cost of the removal of invasive plants located on the steep slope between the existing lawn and PNB. Special consideration to personal safety, handling and disposal is required when conducting invasive plant removal. The City of Nanaimo has produced an excellent publication on controlling invasive plants (including disposal) available at: [http://www.nanaimo.ca/assets/Departments/Parks~Rec~Culture/Parks/invasive\\_plants.pdf](http://www.nanaimo.ca/assets/Departments/Parks~Rec~Culture/Parks/invasive_plants.pdf)

## Revegetation

Pheasant Hill Homes Ltd. has provided a professional Landscape Plan for the property (Figure 3). The Landscape Plan includes a wide variety of native and non-native plant species suitable for Coastal Bluff ecosystems including 1,054 plants comprised of 27 species (8 herbaceous species, 16 shrub species and 3 tree species). The list of plant species and quantities is indicated in Table 1.

Table 1. Proposed Revegetation Plant Species List and Quantities

<b>Plant List - Oak Bluff</b>				
ID	Qty	Latin Name	Common Name	Size
AU	129	<i>Arctostaphylos uva ursi</i>	Kinnikinnick	1 gal.
BH	47	<i>Brodiaea hyacinthina</i>	Fool's onion	10 cm
COR	2	<i>Cornus nuttallii</i>	Pacific Dogwood	5 gal.
CQ	31	<i>Camassia quamash</i>	Common camas	9 cm
DH	21	<i>Dodecatheon hendersonii</i>	Broad-leaved shooting star	10 cm
HL	5	<i>Holodiscus discolor</i>	Ocean spray	2 gal.
MA	14	<i>Mahonia aquifolium</i>	Oregon Grape Holly	1 gal.
PG	15	<i>Polypodium glycyrrhiza</i>	Licorice fern	1 gal.
QUE	1	<i>Quercus garryana</i>	Garry Oak	5 gal.
RN	15	<i>Rosa nutkana</i>	Nootka rose	2 gal.
RS	6	<i>Ribes sanguineum</i>	Red-flowering currant	2 gal.
<b>Plant List - Ornamental</b>				
ID	Qty	Latin Name	Common Name	Size
	Seed	<i>Trifolium repens</i>	Clover	1670 sq'
THU	2	<i>Thuja occidentalis 'pyramidalis'</i>	Pyramid cedar	5 gal.
RC	9	<i>Rhododendron 'catawbiense album'</i>	White catawba rhododendron	2 gal.
RA	7	<i>Rhododendron 'alena'</i>	Rhododendron 'alena'	1 gal.
MN	65	<i>Mahonia nervosa</i>	Dull Oregon-grape	1 gal.
LA	55	<i>Lavandula angustifolia</i>	English lavender	10 cm
LS	35	<i>Leucanthemum × superbum</i>	Shasta daisy	10 cm
BH	8	<i>Brodiaea hyacinthina</i>	Fool's onion	10 cm
EL	7	<i>Eriophyllum lanatum</i>	Woolly sunflower	9 cm
FIC	1	<i>Ficus carica 'Desert King'</i>	'Desert king' fig	5 gal.
VO	6	<i>Vaccinium ovatum</i>	Evergreen huckleberry	1 gal.
<b>Plant List - Slope</b>				
ID	Qty	Latin Name	Common Name	Size
AR	21	<i>Amelanchier alnifolia 'regent'</i>	Serviceberry 'regent'	2 gal.
AU	184	<i>Arctostaphylos uva ursi</i>	Kinnikinnick	1 gal.
CA	12	<i>Symphoricarpos albus</i>	Common snowberry	2 gal.
GS	184	<i>Gaultheria shallon</i>	Salal	9 cm
HL	5	<i>Holodiscus discolor</i>	Ocean spray	2 gal.
LA	73	<i>Lavandula angustifolia</i>	English lavender	10 cm
LI	9	<i>Lonicera involucrata</i>	Black twinberry	2 gal.
PG	12	<i>Polypodium glycyrrhiza</i>	Licorice fern	1 gal.
PM	61	<i>Pachistima myrsinites</i>	Falsebox	2 gal.
VO	12	<i>Vaccinium ovatum</i>	Evergreen huckleberry	1 gal.

The number of plants indicated in the Landscape Plan should be considered preliminary. Currently the high density of invasive species present within the treatment area make it difficult to ascertain how many native plants may be present, and therefore how many additional native plants will be required.

**Recommendations**

I recommend that an assessment of the treatment area be conducted immediately following removal of invasive plants to determine an accurate number of new plantings required.

Vegetation maintenance will be as detailed in Pheasant Hill Homes Ltd's Landscape Plan Project Specifications, and includes initial maintenance of exterior landscape work to be completed on a regular basis by a Contractor for a period of one (1) year followed by preventative maintenance on a bi-annual basis for an additional minimum of four (4) years.

**Conclusions**

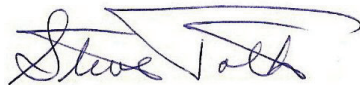
The problems with the existing vegetation cover relate to historic planting / colonization of invasive species and a lack of recent maintenance (i.e. pruning, thinning, shaping and removal of over mature specimens and invasive species). The removal of invasive species (i.e. Japanese knotweed, Himalayan blackberry, St. John's wort, periwinkle, spurge laurel and others) should begin with an aggressive campaign to significantly reduce the occurrence of these species on the property. However, it is acknowledged that due to the presence of infestations on adjacent properties and the high densities of invasive species on the subject property, total eradication of these invasive species is not likely to be achieved in a single growing season, and therefore invasive species removal must form part of an ongoing vegetation maintenance program for the property.

Repairs to the two existing beach access stair cases are required primarily to provide safe access to the beach and will not represent new development footprints or additional environmental impacts within the Coast setback.

Based on my assessment of the current conditions within the Coast setback on the property and review of the proposed works within the Coast setback under the current development plan, it is my conclusion that the proposed Landscape Plan will result in significant improvements in the ecological function / vegetation conditions within the Coast setback. I would consider these improvements to be more than adequate compensation for the small area of footprint / disturbance associated with the proposed outdoor kitchen and rock retaining wall replacement.

Please contact us if you require any additional information.

Sincerely,  
Steve Toth, AScT, R.P.Bio.



**Toth and Associates Environmental Services**

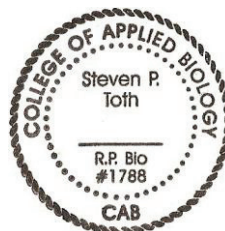
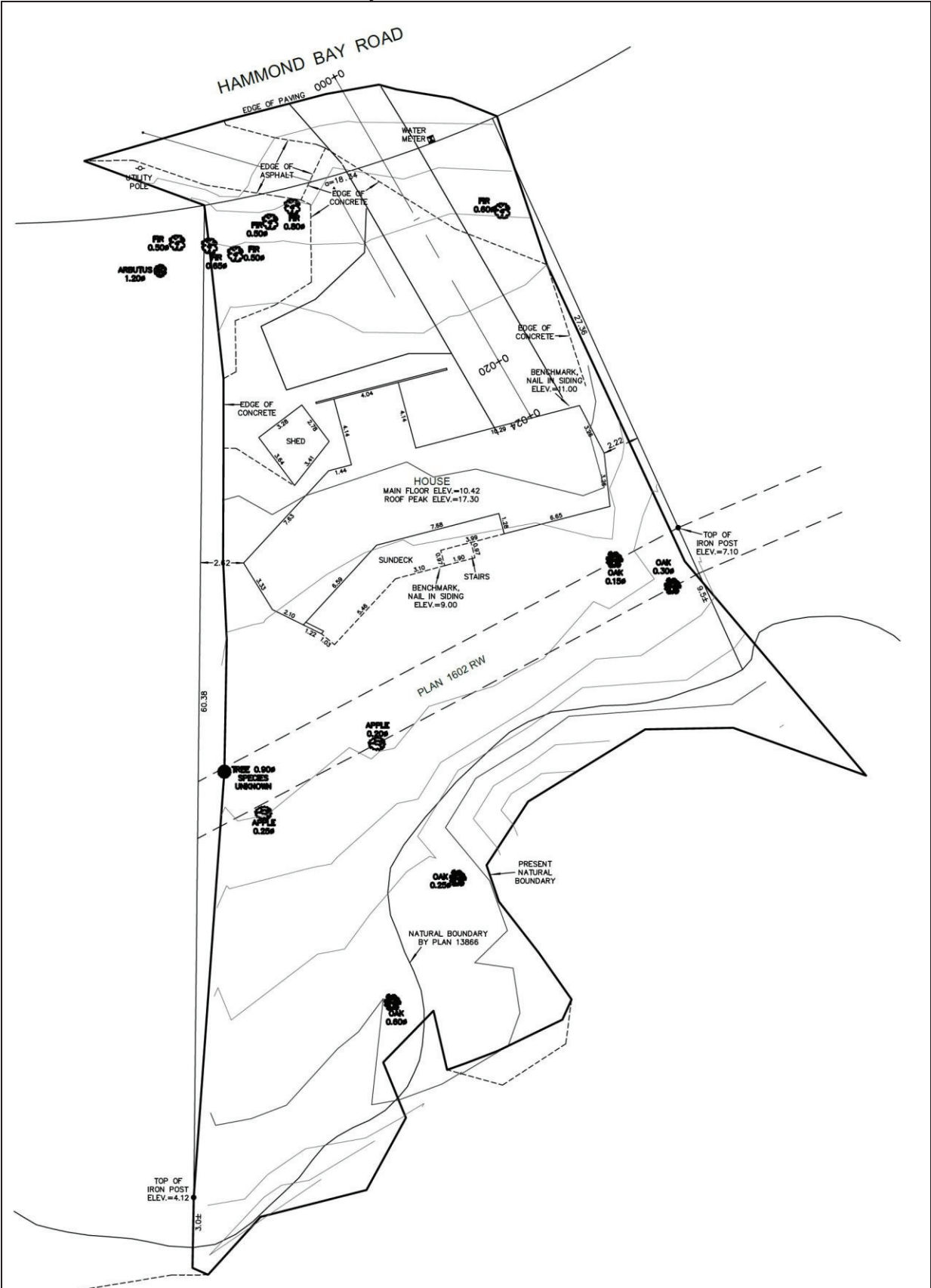


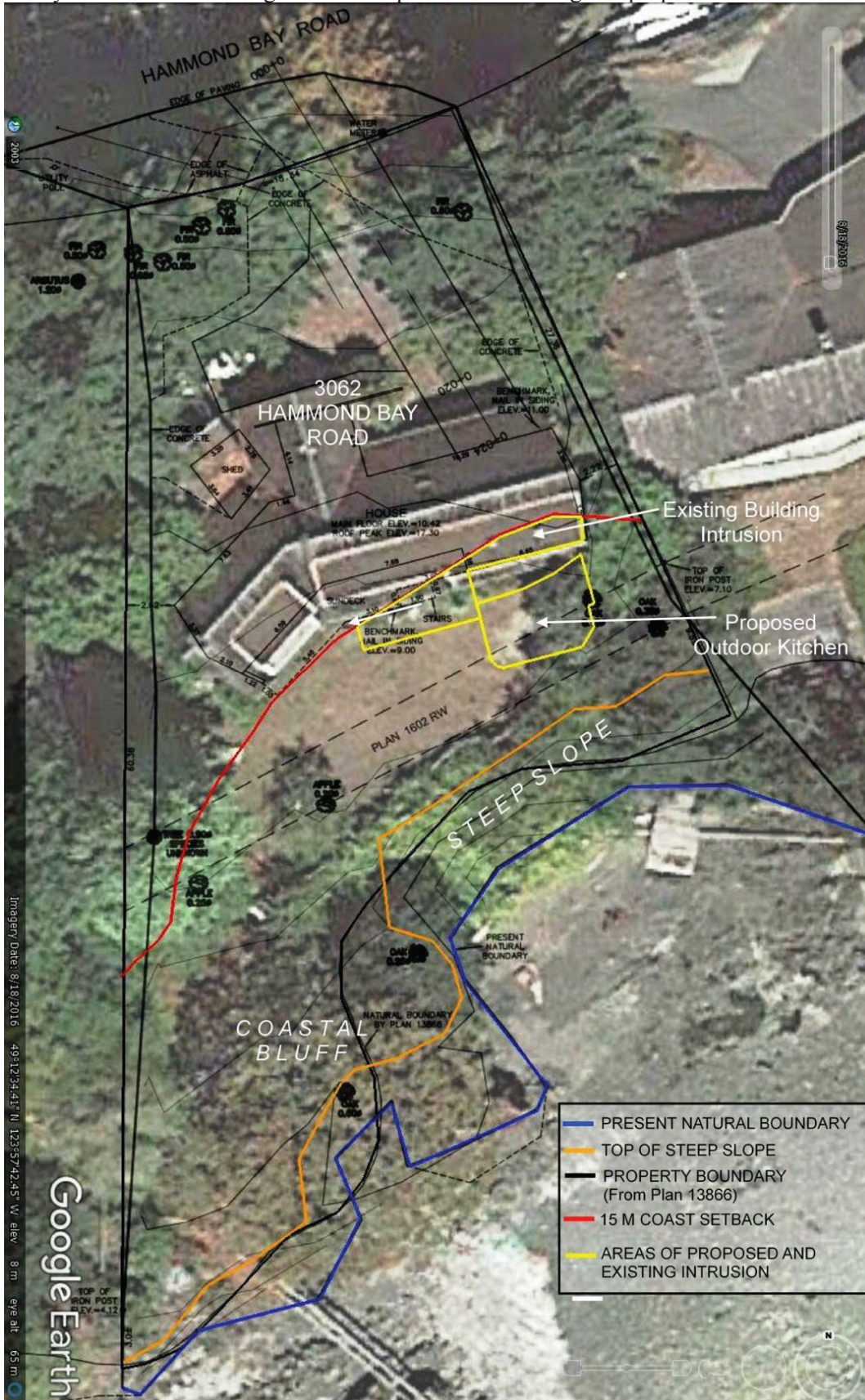
Figure 1. J.E. Anderson & Associates Survey Plan





Environmental Review of proposed redevelopment of 3062 Hammond Bay Road

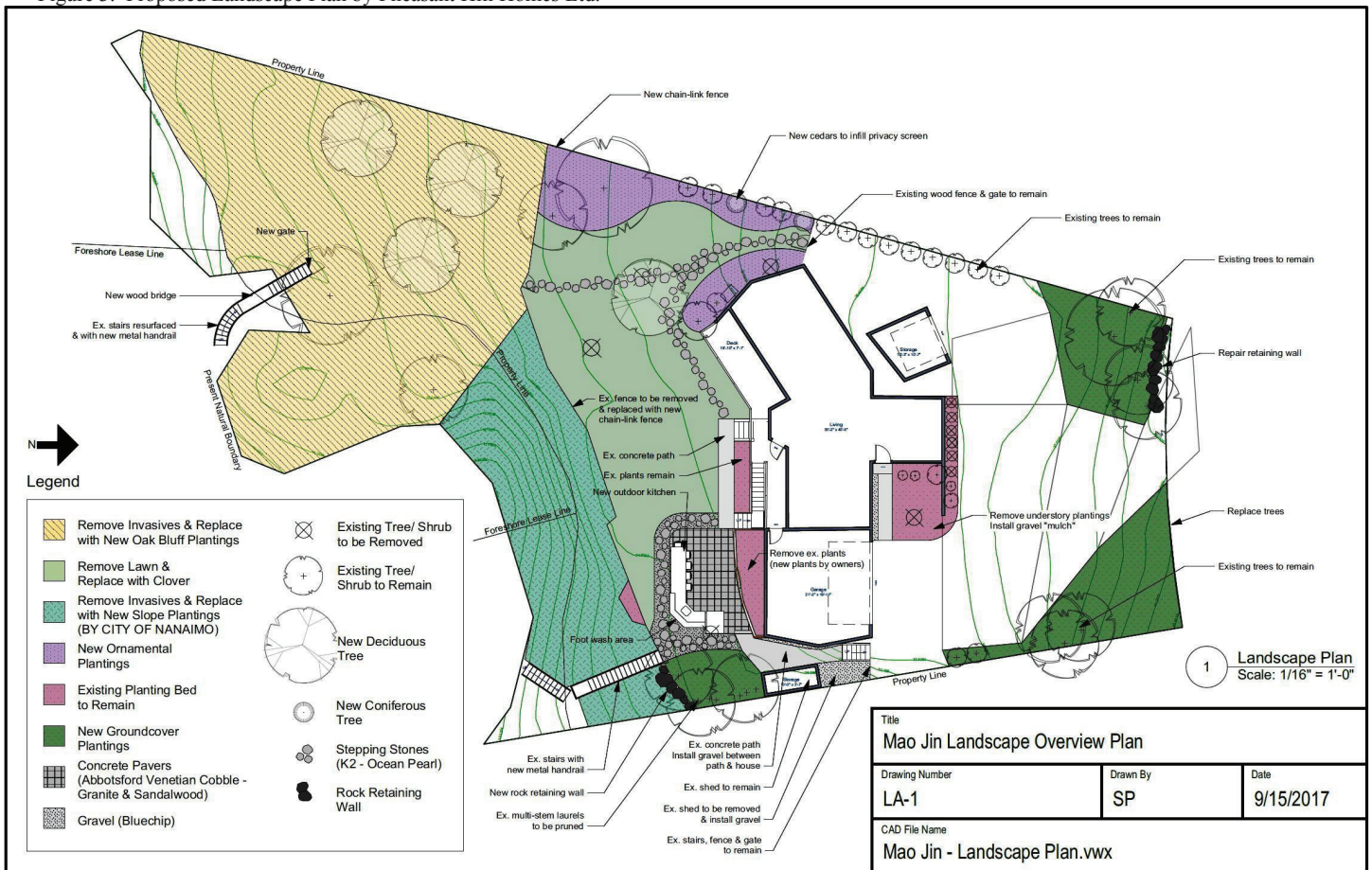
Figure 2. Survey Plan overlaid on August 2016 air-photo with existing and proposed intrusion areas





Environmental Review of proposed redevelopment of 3062 Hammond Bay Road

Figure 3. Proposed Landscape Plan by Pheasant Hill Homes Ltd.



*Environmental Review of proposed redevelopment of 3062 Hammond Bay Road*

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Photograph 1. View west through the rear yard area.



Photograph 2. View west through rear yard showing existing fence along the top of steep slope.





Photograph 3. View of dense shrub plant community growing on steep slope along the PNB.



Photograph 4. View west from beach to mature Garry oak on Coastal Bluff.





Photograph 5. View of infestation of St. John's wort in Coastal Bluff area.



Photograph 6. View east through rear yard to proposed outdoor kitchen area.



**ATTACHMENT E  
AERIAL PHOTO**



DEVELOPMENT PERMIT NO. DP001080

