

EXHIBIT LIST

Manitou RUE & VAR PLN51687 RUE & VAR

Staff Contact:
Annie Hillier, Associate Planner

Public Hearing:
Virtual Hearing – via Zoom

City of Bainbridge Island Hearing Examiner

NO.	DOCUMENT DESCRIPTION	DATE
1	Staff Report	Dated 01/28/21
2	Application and Owner/Agent Agreement	Received 05/21/20
3	Preapplication Summary	Dated 03/10/20
4	Geotechnical Engineering Report	Dated 05/01/20
5	Notice of Incomplete Application	Dated 06/12/20
6	Decision Criteria and Response to Notice of Incomplete Application	Received 07/30/20
7	Site Plan	Dated 09/30/20
8	Notice of Complete Application	Dated 10/23/20
9	Notice of Application/Hearing	Dated 11/13/2020
10	Mailing List, Affidavit of Publication, and Certificate of Posting	Various
11	Public Comments	Various
12	Information Request Memo	Dated 11/25/20
13	Email from Planning to Applicant, regarding public comments	Dated 12/07/20
14	Response from Applicant, regarding shifting SFR closer to street	Dated 12/07/20
15	Final wetland report, addressing previous information requests and discussion of significant trees	Dated 12/16/20
16	City Development Engineering Comments	Dated 11/23/20
17	City Arborist Comments	Dated 12/22/20
18	Health District Comments and Email	Various
19		
20		
21		
22		



Department of Planning and Community Development

Staff Report

Project Manitou RUE & VAR
File No. PLN51687 RUE (master file) & PLN51687 VAR
Date January 28, 2020
To City of Bainbridge Island Hearing Examiner
Project Manager Annie Hillier, Associate Planner

Request	The request is for a reasonable use exception (RUE) and a minor variance (VAR) to allow development of a single-family residence and attached garage within a wetland buffer. Onsite wetland buffer enhancement is proposed to compensate for impacts to the critical area.
Address	**no situs address**, Bainbridge Island, WA 98110
Tax Assessor #	34260240332007
Environmental Review	The project is exempt from the State Environmental Policy Act (SEPA) under WAC 197-11-800(6)(a).

Hearing Examiner Review

The project is being reviewed under the consolidated project review provisions provided in BIMC 2.16.170, which is available for a single project proposal requiring more than one land use application. The procedures include consolidation of various land use applications, public notification of an application and opportunity for public comment prior to a final decision. A consolidated project permit application shall follow the application and notice procedure listed below that results in the most extensive review and decision process.

The reasonable use exception (RUE) request requires the most extensive review and decision process; therefore the hearing examiner shall review the RUE and minor variance (VAR) applications and conduct a public hearing pursuant to the provisions of BIMC 2.16.100. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's compliance with all of the RUE and VAR review criteria in Part VII.

Staff Recommendation

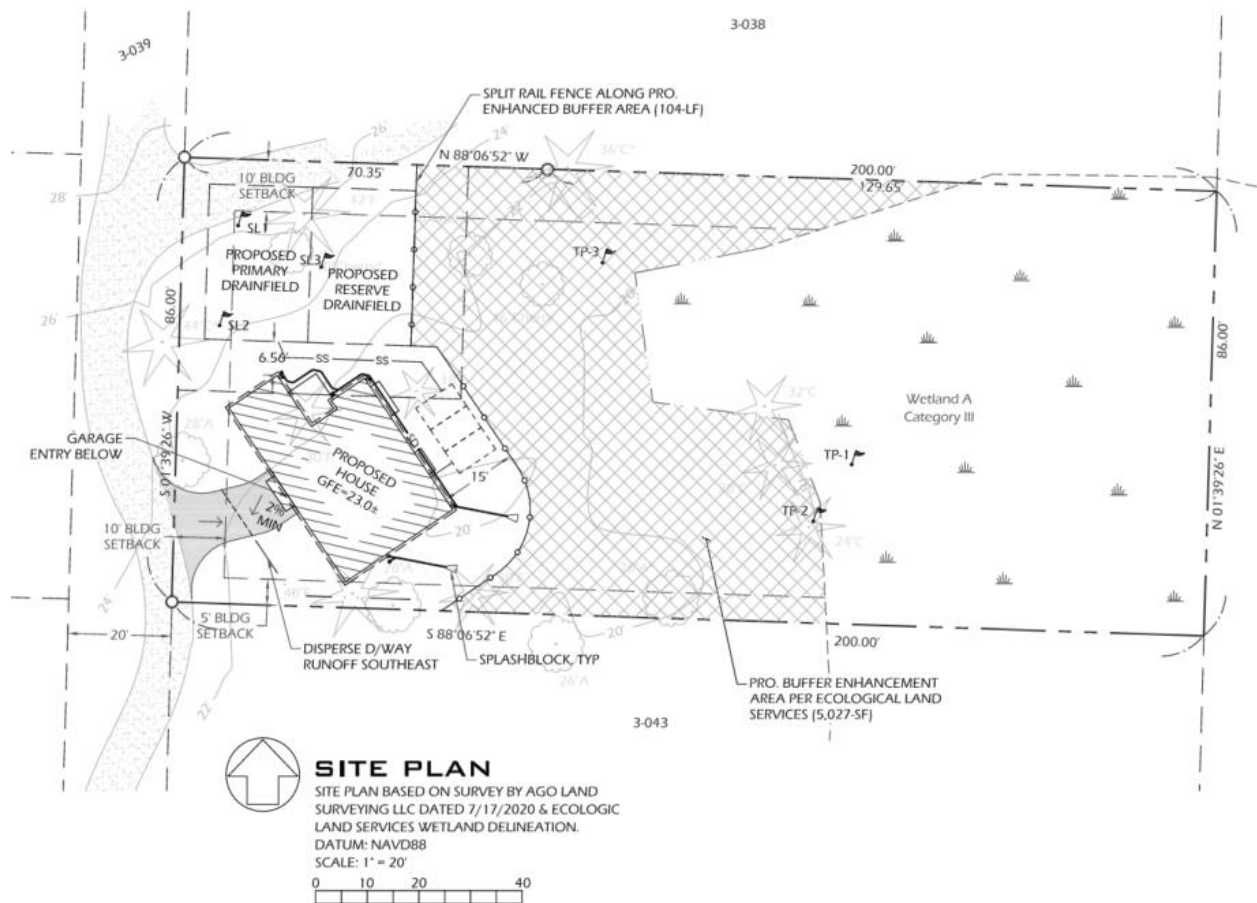
Approval of the RUE and VAR applications, with conditions.

Part I: SUMMARY OF PROPOSAL AND STAFF RECOMMENDATION

The proposal is for a single-family residence (SFR) and attached garage on a lot encumbered with wetlands and wetland buffers. The total proposed lot coverage is approximately 880 square feet (sf). The applicant requests an RUE to develop the property, as the application of the critical areas ordinance (CAO) would otherwise deny all reasonable use of the subject property. The VAR is requested to reduce the front setback from 25' to 10', in order to locate the development farther away from the wetland edge and to reduce the area of impact within the wetland buffer. To compensate for permanent impacts to the wetland buffer, buffer enhancement is proposed in an area of 5,027 sf.

As conditioned, the project meets the decision criteria for RUE review and approval in BIMC 16.20.080.F, as well as the decision criteria for VAR approval in BIMC 2.16.060.D.1.

Figure 1 – Site Plan



Part II: GENERAL INFORMATION AND SITE CHARACTERISTICS

Assessor's Record Information:	
Tax lot number	14250230402005
Owner of record	Linda Padgett
Lot size	0.39 acres (16,988 sf)
Terrain:	
Relatively flat with gentle slope to southeast toward wetland area	
Site Development:	
The site is currently undeveloped.	
Access:	
The site is accessed from a private street off of Manitou Beach Dr. NE.	
Public Services:	
Police	City of Bainbridge Island Police Department
Fire	Bainbridge Island Fire District
Schools	Bainbridge Island School District
Water	North Bainbridge Kitsap Public Utilities District
Sewer	n/a – septic proposed
Surrounding Uses:	
Surrounding uses are mainly single-family residential. There is a passive recreation park located at the south end of the access street.	
Existing Zoning:	
The site is zoned R-2, 1 unit per 20,000 sf.	
Surrounding Zoning:	
The surrounding zoning is R-2, 1 unit per 20,000 sf.	
Existing Comprehensive Plan Designation:	
The Comprehensive Plan designates the site as a Residential District area.	
Surrounding Comprehensive Plan Designation:	
The Comprehensive Plan designates the surrounding area as a Residential District area.	

Figure 2 – Vicinity Map, Aerial Image, and Zoning:



Part III: APPLICATION BACKGROUND

Date:	Action:
March 10, 2020	Preapplication conference, letter sent to applicant (Exhibit 3)
May 21, 2020	Application for RUE & VAR submitted (Exhibit 2)
June 12, 2020	Application deemed incomplete (Exhibit 5)
October 12, 2020	Additional information, including site plan and narrative, submitted to City (Exhibits 6 & 7) (Note: a revised wetland report was also submitted, but only the final version is included in the Exhibits for the hearing (Exhibit 15). All versions are available in the project file, however.)
October 23, 2020	Application deemed complete (Exhibit 8)


November 13, 2020	Notice of Application and Hearing published (Exhibit 9) Note: The Notice contains an incorrect project description, stating the footprint will be 1,080 sf. The proposed footprint is approximately 880 sf. The notice also, in error, contains a statement about an extended comment period due to a holiday. Although there was no holiday, all public comments were received within the noticed dates and appropriately added to the record. Staff determined renoticing was not necessary since the proposed impact is slightly smaller than anticipated and the comment period did not appear to cause any confusion.
Various	7 public comments received
November 25, 2020	Information request, regarding the wetland rating and possibility of further reducing impacts by shifting the SFR towards the street (Exhibit 12)
December 16, 2020	Email from City regarding public comments about significant trees (Exhibit 13)
December 16, 2020	Final wetland report submitted, addressing significant trees, possibility of shifting SFR, and rating (Exhibit 15)

Part IV: PUBLIC COMMENTS

7 public comments were received during the 21-day comment period.

Issue	Response
Concern about construction staging locations.	The BIMC does not specifically regulate construction staging. However, in order to minimize impacts to the critical area in accordance with BIMC 16.20.080.G.3, the project is conditioned to minimize construction staging areas within the development area granted under this RUE, outside of the reduced critical area buffer (Conditions 3c, 16e). The applicant has also indicated that the 10' front setback is proposed, in part, to leave room for additional parking on the site while also reducing impacts to the wetland buffer.
Concern about damage to vegetation on road from heavy equipment.	Staff did not observe vegetation located on the roadway, and damage to vegetation on the road from heavy equipment is not anticipated. However, should unanticipated damage occur, the onus is on the applicant and the legal property owner of the private roadway to determine the appropriate measures and whether after-the-fact permitting is required. The onus is also on the applicant to ensure that they have legal access to the private roadway and to follow any specific terms of the access agreement. BIMC 18.03.080 provides further information about the City's role in private agreements, including: The city is not responsible for enforcing private easements, covenants, or other similar restrictions.
Concern about healthy significant tree removal on property, including total number of trees proposed for removal and tree protection measures.	The proposal identifies 8 significant trees for removal, 1 of which is hazardous and another completely dead, as determined by the City Arborist. 17 trees will be replanted within the buffer as a part of the buffer enhancement plan. The City Arborist reviewed the proposal and has recommended that tree protection measures be

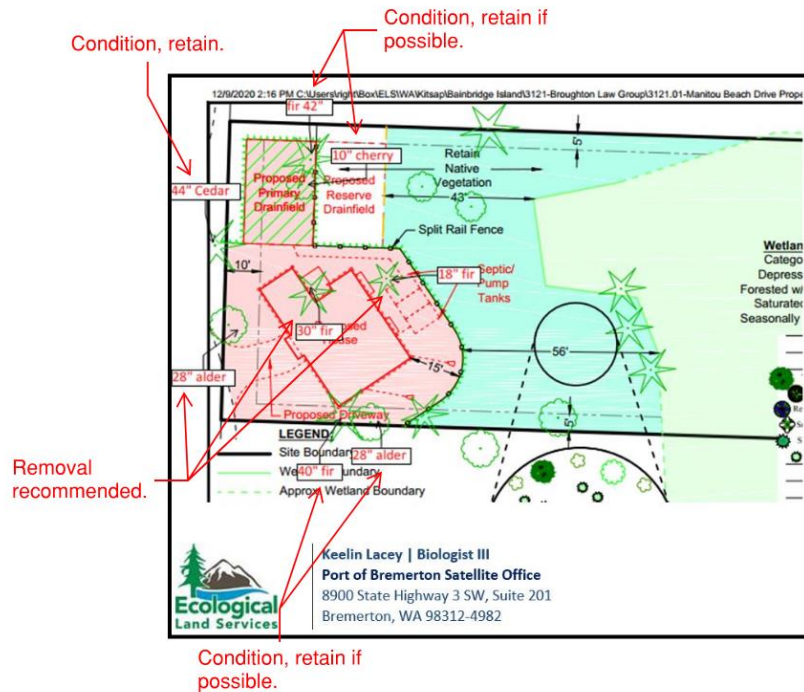
	<p>implemented and that healthy significant trees be retained to the extent practicable (Exhibit 17). The project is appropriately conditioned (Condition 4), as described below, under review criteria #4.</p> <p>The City does not recommend shifting the development closer to the wetland edge and away from the 8 significant trees, as the biologist has determined that this would decrease the buffer function and result in additional significant tree removal closer to the wetland edge (see cover letter on Exhibit 15), and the proposal must represent the least impact to the buffer in order to be approved for a reasonable use exception.</p>
Concern about damage to road from installing water and electricity.	The onus is on the applicant to ensure that they have legal rights to install utilities within to the private roadway and to follow any specific terms related to damage. The project is also conditioned to minimize disturbances from utilities (Condition 16a).
Concern about access to main road during construction and utilities installation.	The onus is on the applicant to ensure they follow any specific terms related to use of the access road. The City does not issue right-of-way permits for activities on privately owned streets.
Concern about size of SFR. Too large.	Lot coverage is limited to 1,200 sf in accordance with BIMC 16.20.080.F.6, and the proposal must minimize impacts to the critical area in accordance with mitigation sequencing (BIMC 16.20.080.F.3). As such, the allowed size of the SFR and development area depends on the applicant's ability to demonstrate that adequate steps have been taken to avoid, minimize, and mitigate for, impacts, provided the lot coverage does not exceed 1,200sf. This is less than what is allowed in R-2 zoning, which provides a lot coverage maximum of 20%, or 3,397.7 sf on a lot of this size. The proposal is for an SFR with a building footprint of 880 sf, and lot coverage will not exceed 1,200 sf. The size of the SFR is not large relative to other SFRs in the vicinity according to GIS data, and the applicant has provided a report that concludes no net loss of critical area ecological functions.
Concern about public notification process.	Public notice was provided in accordance with BIMC 2.16.020.M.5, including posting the subject property, notifying nearby property owners, and posting the notice in the local newspaper. Additional notice at the start of construction is not required by the BIMC.
Concern about parking if front setback is reduced; no parking available on road.	BIMC Table 18.15.020-1 requires 2 parking spaces for SFRs in residential zoning districts. The proposal includes a 2-car garage. The front setback is proposed to be reduced to 10' to balance the requirement to minimize impacts to the critical area with neighborhood concerns about parking and neighborhood character. By reducing the setback to 10', as

	opposed to 5' or less, there will be room for guest and construction parking in the driveway in front of the garage location. Additionally, the SFR is located 10' from the front lot line in one location – the NW corner of the SFR. The footprint of the SFR is angled to the front lot line, so the setback increases to over 30' from the NW corner of the SFR to the most southern corner.
Request for permeable parking area.	The project is conditioned to use permeable materials for hardscaping, where feasible (Condition 16d).
Concern about retaining existing easements.	Per BIMC 18.03.080: The city is not responsible for enforcing private easements, covenants, or other similar restrictions. The onus is on the applicant to ensure that existing legal agreements are upheld.
Concern about long-term success of mitigation area.	A required component of the mitigation plan is a monitoring and maintenance plan, including contingency actions, in accordance with BIMC 16.20.180.G.3.e. Monitoring is required for a period no less than 7 years (BIMC 16.20.180.G.3.e.7). The applicant's mitigation plan includes a 5-year monitoring period to ensure the performance standards are met, and a contingency plan will be implemented if the performance standards are not met during the 5-year monitoring period. Staff recommends conditioning the project to include a longer monitoring period in accordance with the requirements of BIMC 16.20.180.G.3.e.7 (Condition 12).
Concern that reduced setback is out of character with neighborhood.	 <p>While it is difficult to determine the exact locations of the surrounding SFRs relative to the private street with aerial imagery due to existing tree canopy, GIS data shows their approximate locations, which appear varied. According to the City's permitting database, no variances have been granted for the surrounding SFRs – the most recent of which</p>

	was constructed in 1981. The proposed setback from the SFR to the private street will range from 10' at its closest point, to over 30' at the most southern corner.
Concern about Landmark Trees.	The City's Landmark Tree Ordinance only applies within the Winslow Master Plan Study Area. The subject property is located outside of this area.
Concern about shoehorning in development that conflicts with protective regulations.	The RUE process is available when a property is encumbered to such an extent by critical areas and/or critical area buffers that application of the critical areas ordinance would deny all reasonable use of the subject property, consistent with Guiding Policy 4.1 of the City's Comprehensive Plan: "Respect private property rights protected by the State and U.S. Constitutions", and Guiding Policy 4.2: "Recognize that private property rights are not absolute but must be balanced with necessary and reasonable regulation to protect the public health, safety and welfare". An RUE requires that the development proposal demonstrate no net loss of critical area functions and values, as well as meet other decision criteria that are intended to protect the critical area. The proposal, as conditioned, is consistent with these regulations as described in this staff report.

Part V: AGENCY COMMENT

Agency:	Action:
Fire District	Approved, no conditions.
City Development Engineering	Approved with conditions (Exhibit 16)
Health District	Completed, no determination until building site application received (Exhibit 18)
City Arborist	The City Arborist reviewed the proposal in response to the public concerns raised about tree removal on the site and consistent with RUE review criteria #4, the proposed impact to the critical area is the minimum necessary to allow reasonable use of the property. The City Arborist's comments (Exhibit 17) indicate that while at least three significant trees require removal, it is possible for another five to be retained, depicted below.



The following conditions are recommended as a result of the City Arborist's comments (Condition 4):

- The 44" cedar along the west lot line must be retained and have its root zone protected to the greatest extent possible during construction.
- Consideration shall be given to retaining the 40" fir and 28" alder along the south lot line by adjusting the site plan to accommodate a 10' radius from the base of the trees for a tree protection area. If this is practically infeasible or will result in an increase in wetland buffer impacts, then this shall be documented with the building permit submittal for City review and acceptance.
- Consideration shall be given to retaining the 42" fir and 10" cherry by installing a minimally invasive drainfield. If this is determined infeasible by the septic designer or Health District, this shall be documented with the building permit submittal for City review and acceptance. It is not recommended that the primary and reserve drainfields be swapped, as the impacts to the wetland buffer may be greater and a typical trench-style drainfield would still impact the root systems.

Part VI: COMPREHENSIVE PLAN ANALYSIS

The following Comprehensive Plan goals and policies apply to the proposal:

1. Environmental Element

Goal EN-1: Preserve and enhance Bainbridge Island's natural systems, natural beauty and environmental quality.

Goal EN-4: Encourage sustainable development that maintains diversity of healthy, functioning ecosystems that are essential for maintaining our quality of life and economic viability into the future.

Goal EN-5: Protect and enhance wildlife, fish resources and ecosystems.

Staff response: An RUE balances private property rights with necessary and reasonable regulation to protect the island's finite environmental resources. The applicant is proposing to enhance a wetland buffer that is dominated by invasive species, and to install split-rail fencing along the enhanced buffer edge to prevent intrusion. The project is conditioned to utilize non-leaching roofing and to restrict herbicide and pesticide use to ensure long term protection of the wetlands after the introduction of the residential use. As conditioned, the project meets the goals of the Comprehensive Plan referenced above.

2. Land Use Element

Policy LU 14.1: The Residential District area is designated for less intensive residential development and a variety of agricultural and forestry uses.

Staff response: The proposal is for a single-family residence with limited lot coverage, consistent with Policy LU 14.1.

Part VII: LAND USE CODE ANALYSIS

The following Bainbridge Island Municipal Code (BIMC) regulations apply to the proposal:

1. BIMC Title 18 Zoning

A. 18.06.020 Purpose

The purpose of the R-2 zone is to provide residential neighborhoods in an environment with special Island character consistent with other land uses such as agriculture and forestry, and the preservation of natural systems and open space, at a somewhat higher density than the R-1 district.

Staff response: The proposal is for the construction of one home and the preservation of the wetland and wetland buffer, outside of the area impacted by the development.

B. 18.09.020 Permitted Uses

Residential uses, including single-family dwellings, are permitted in the R-2 zone.

Staff response: The request is for the construction of a single-family residence and attached garage, to support a residential use allowed this zone.

C. 18.12.010 Dimensional Standards

Maximum Density and Minimum Lot Dimensions

The minimum lot area per dwelling unit is 20,000 square feet, with a minimum lot depth and width of 80 feet.

Staff response: The lot area is 16,988 sf. The lot width and depth each exceed 80'. The lot is nonconforming to the minimum lot area for the R-2 zoning designation. Pursuant to BIMC 18.30.050, any nonconforming single lot, tract or parcel of land that was lawfully created

and recorded with the county auditor's office may be used for the purposes permitted by this title notwithstanding the minimum lot area, lot width and lot depth required.

Maximum Lot Coverage

The maximum allowed lot coverage is 20% in R-2 zoning.

Staff response: The maximum lot coverage allowed on the lot is 3,397.6 sf. However, the lot coverage is limited to 1,200 sf as a criterion of approval for the RUE. The proposal does not exceed the 1,200 sf limitation.

Setbacks

In R-2 zoning, the front setback is 25 ft. Side setbacks are 5 ft. min, 15 ft. total. The rear setback is 15 ft.

Staff response: The applicant is requesting a variance from the 25' front setback, reducing it to 10'. See analysis below. The proposal is in compliance with the side and rear setbacks.

D. BIMC 18.15.020 Parking and Loading

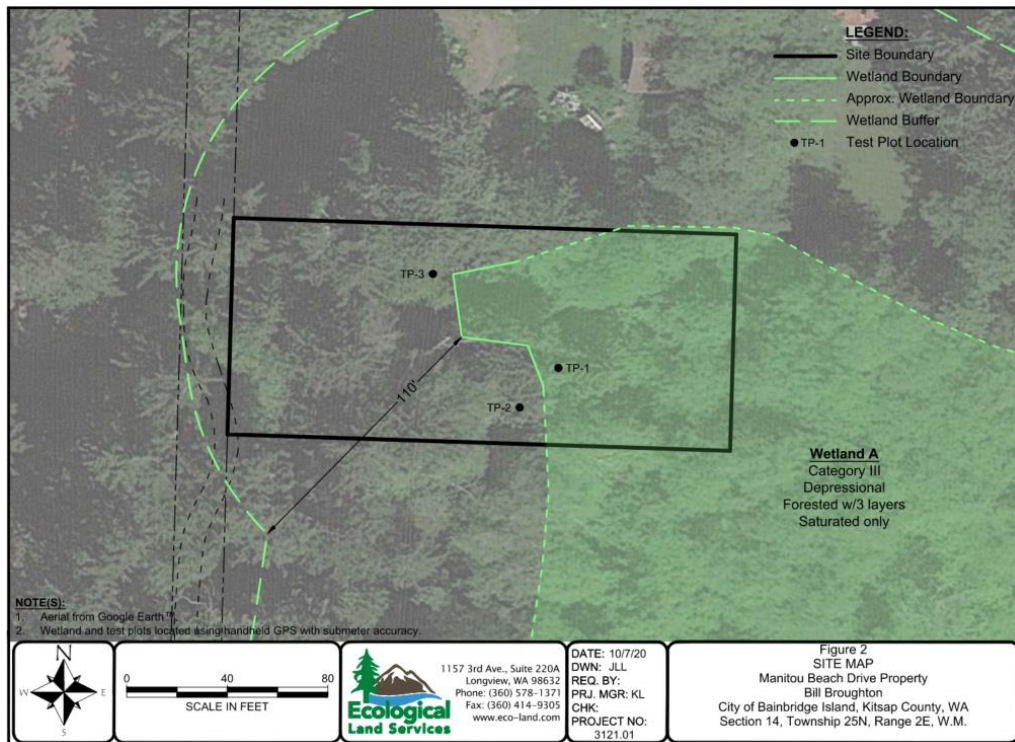
Residential dwelling units are required to provide two spaces for each primary dwelling.

Staff response: The proposal includes a 2-car garage within the footprint of the SFR.

2. BIMC Title 16 Environment

The wetland delineation report and mitigation plan submitted with the application (Exhibit 15) identifies one wetland on the eastern portion of subject property. The 110' buffer extends across the remainder of the property, completely encumbering it. The site also contains a mapped liquefaction area on the eastern portion of the subject property.

Figure 3 – The subject property is encumbered by a category II wetland and its buffer.



A. BIMC 16.20.080 Reasonable Use Exceptions

Applicability and Intent

An applicant may request an RUE pursuant to BIMC 16.20.080.A when a site assessment review pursuant to BIMC 15.20 or a pre-application conference demonstrates that: 1. The subject property is encumbered to such an extent by critical areas and/or critical area buffers that application of this chapter would deny all reasonable use of the subject property; 2. Reasonable use of the subject property cannot be achieved through Buffer Modification (BIMC 16.20.110 and 140) or a Habitat Management Plan (BIMC 16.20.110); and 3. Alternatives to development through an RUE are not available or acceptable.

Staff response: As described in the wetland delineation and buffer mitigation plan, the wetlands and buffer cover the entire property. Buffer modification allows the buffer to be reduced up to 25 percent of its required width, or to 82.5'. A 25 percent reduction in buffer width does not provide an area large enough to accommodate an SFR and drainfield. A Habitat Management Plan is a report that evaluates measures necessary to maintain, enhance and improve terrestrial and/or aquatic habitat on a proposed development site, and is not applicable to the development proposal or site. The only way for the applicant to develop the site with an SFR is through an RUE, as discussed during the applicant's preapplication conference.

Reasonable Use Review Criteria

The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's compliance with all of the RUE review criteria described below. As conditioned, staff finds that the proposal meets the RUE review criteria as described below.

1. The application of this chapter would deny all reasonable use of the property;

Staff response: The critical areas ordinance allows for maintenance of existing structures and uses, and a limited range of accessory structures (e.g. utilities), but since the property is currently undeveloped and without an existing use, these allowances do not apply. The application of this chapter would deny all reasonable use of the subject property, as there is no area available outside of critical areas to establish a use on the site.

2. There is no reasonable alternative to the proposal with less impact to the critical area or its required buffer;

Staff response: "Reasonable alternative" means an activity that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation (BIMC 16.20.190, #67). The proposal is for a residence, the purpose of which is to provide shelter for a single family. While there are other allowed uses for the R-2 zoning district, such as a passive recreation park, that may have less impact to the critical area buffer, the City has not identified alternative uses that would achieve the proposal's objective.

A reasonable alternative to the proposal that could achieve the same objective but at a lower environmental cost might be an SFR with, for example, a low impact foundation design or other environmentally sensitive design features. The applicant considered the use of a minimal excavation foundation system as discussed in the geotechnical

engineering report (Exhibit 4), but the soils on the site were found unsuitable. Staff recommends that the project be conditioned to further decrease the level of environmental degradation, which is discussed in further detail under review criteria #4, to ensure this criterion is met.

3. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BIMC 16.20.030);

Staff response:

Avoiding impacts
<p>The proposal avoids impacts to the wetland itself by locating the SFR in the outer edge of the wetland buffer.</p> <p>The wetland report includes additional avoidance measures that are more appropriately described as minimization steps, as described below.</p>
Minimizing impacts
<p>The proposal includes:</p> <ul style="list-style-type: none"> • SFR located in outer edge of wetland buffer, minimizing total impact area • 2-car garage for parking, minimizing pollutant runoff from vehicles • Location and orientation of septic tanks was revised to minimize total impact area • Split-rail fence along the edge of the building setback to minimize human intrusion • Impacts to existing vegetation minimized by retaining vegetation in the reserve drainfield area <p>The wetland report states that impacts to vegetation will be minimized within the setbacks adjacent to the septic drainfield. The survey depicts a portion of an existing driveway within this area, so it is not clear what is meant by this minimization measure. The report also states that the orientation of the SFR is such that impacts are minimized compared to an SFR located parallel to the lot lines. It is not clear how this conclusion was reached nor does this appear to be accurate. The project can be conditioned to further minimize impacts, described further below under review criteria #4.</p>
Rectifying impacts
<p>The wetland report does not identify opportunities to rectify impacts because the proposed development represents a permanent impact to the critical area.</p>
Reducing or eliminating impacts
<p>The wetland report does not identify opportunities to reduce or eliminate impacts over time through preservation and maintenance, although monitoring and maintenance of the mitigation area will reduce impacts over time. For example, ensuring plant survival and coverage in the mitigation area will help buffer impacts to habitat from light intrusion and noise. Monitoring is further described below.</p>
Compensating
<p>To compensate for the new, permanent impacts to the buffer that cannot be avoided or minimized through the steps identified above, buffer enhancement is proposed. The buffer enhancement area is 5,027 sf, which is approximately 1.4x the area of new, permanent impacts.</p>
Monitoring the impact

Monitoring is proposed for a period of 5 years following completion of the buffer enhancement plan, in accordance with BIMC 16.20.140.J.6. The project should be conditioned to require a minimum of 7 years of monitoring, consistent with BIMC 16.20.180.G.3.e.iv (Condition 12). (In the event of conflict between regulations, the more protect applies (BIMC 16.20.060.H.1)).

4. The proposed impact to the critical area is the minimum necessary to allow reasonable use of the property;

Staff response: The development area is proposed in the southwest corner of the lot, approximately as far away from the wetland edge as possible. Staff asked the applicant to consider reducing the front setback further or reorienting the SFR to further reduce the impact area, but the applicant determined that the site plan as proposed provides a small area for worker parking and construction staging. There is no available street parking within the private street. The applicant has indicated that moving the SFR any closer to the street would make it impractical to build and would possibly create additional neighborhood concern about the reduced front setback (Exhibit 14). Impacts could be further minimized while still allowing reasonable use of the property by imposing conditions such as:

- Requiring that lights be directed away from the wetland.
- Requiring that covenants be established to restrict the use of pesticides, herbicides, and fertilizers.
- Requiring that any temporary construction entrances be comprised of inert materials. Prohibit recycled concrete.
- Requiring fencing along the edge of the primary drainfield, as opposed the edge of the reserve.
- Prohibit the use of soil sterilant on the driveway.
- Requiring that significant trees within the wetland buffer be retained to the extent possible.
- Require non-leaching roofing.

As conditioned, the proposed impact to the critical area is the minimum necessary to allow reasonable use of the property (Conditions 3, 4, and 16).

(Note: Although a smaller residence and garage may result in less impact to the buffer, the underlying zoning supports the allowed lot coverage, which is limited to 1,200 sf. The City has historically considered lot coverage of 1,200 sf reasonable for a lot that is encumbered by critical areas, provided enough mitigation is proposed to adequately compensate for impacts. The proposed building footprint is 880 sf – about the size of a typical accessory dwelling unit – and with the rooftop included, the building is 935 sf (lot coverage does not include 24” of eaves, so the actual lot coverage is less than 935 sf). Given the modest size of the SFR and the wetland report conclusion that there will be no net loss of ecological functions, the City did not ask the applicant to consider a smaller SFR and garage.)

5. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant, or of the applicant's predecessor, that occurred after February 20, 1992;

Staff response: The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant, or of the applicant's predecessor, that occurred after February 20, 1992. There does not appear to be record of any land use actions taken on the property.

6. The proposed total lot coverage does not exceed 1,200 square feet for residential development;

7. *Staff response:* Under BIMC 18.12.050, Rules of Measurement, lot coverage means that portion of the total lot area covered by buildings, excluding up to 24 inches of eaves on each side of the building, any building or portion of building located below predevelopment and finished grade. The proposed building footprint of the structure is 880 sf, and the rooftops square footage is 935 sf. Lot coverage excludes 24" of eaves, so the final calculation, which must be provided with the building permit application (Condition 7), will be less than 935 sf.

8. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the property;

Staff response: The proposal does not include any known threats to public health, safety, or welfare. No concerns about threats public health, safety, or welfare were raised during the comment period.

9. Any alterations permitted to the critical area are mitigated in accordance with mitigation requirements applicable to the critical area altered;

Staff response: Although there are no prescriptive mitigation requirements for wetland buffers, the mitigation plan is required to contain goals and objectives that are related to the functions and values of the original critical area, in accordance with BIMC 16.20.180.G.3.b.

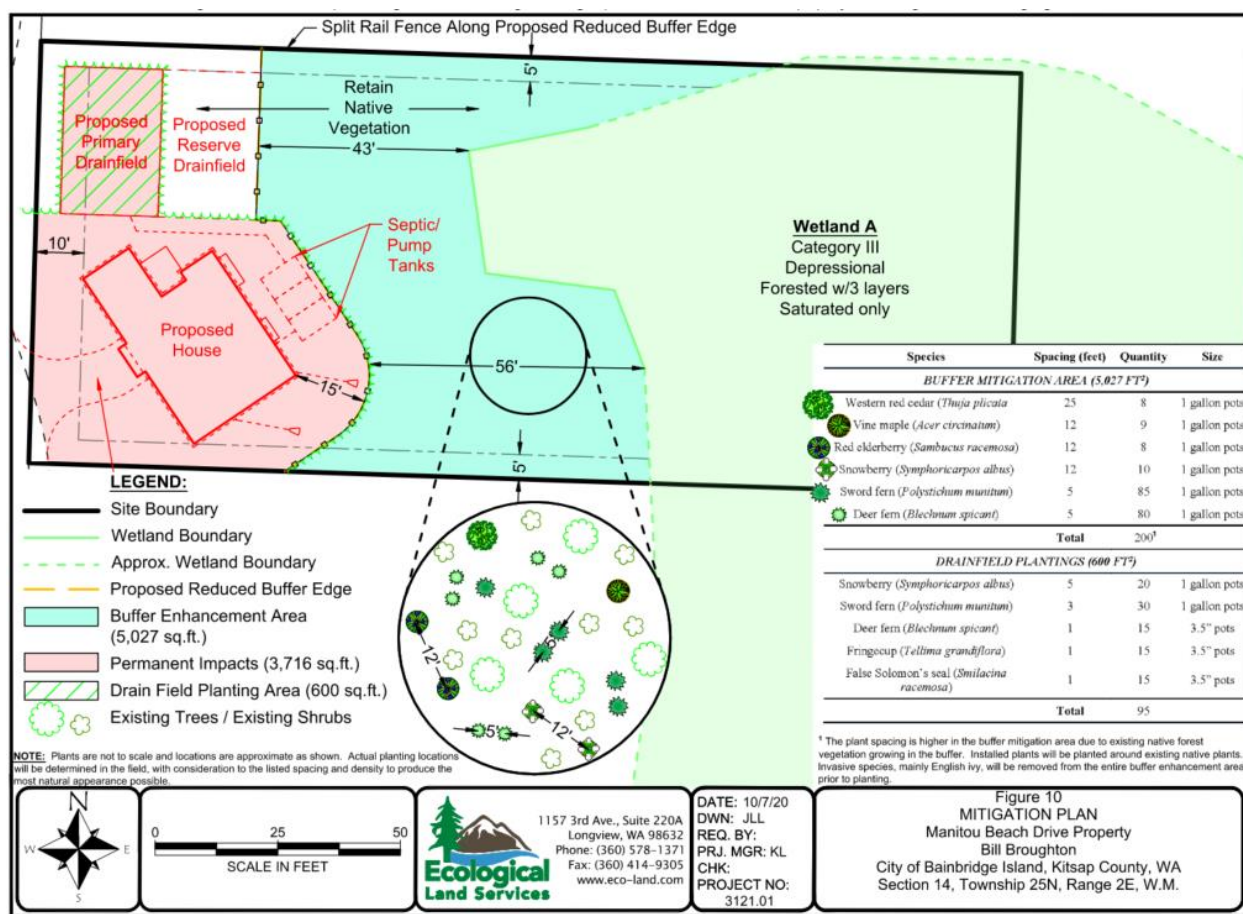
The mitigation plan goal is, "improve buffer functions to compensate for construction within the wetland buffer". The goal is not tied to a function of the buffer in its original condition, presumably because those functions have not been analyzed, as described below. Similarly, the objectives identified in the plan – to control invasive species, and to improve native plant cover and buffer function – are not tied to specific functions either (e.g. habitat, water quality, or otherwise).

Statements are made throughout the report about low species diversity and an abundance of invasive species within the wetland buffer. And while assumptions can be made about what these characteristics might mean for a particular function of the buffer, they are not tied to specific functions and staff is not in a position to make assumptions. The report also makes statements about increasing habitat function and the buffer's ability to screen from noise and light as a result of the mitigation proposal, but it is similarly unclear how the current conditions function to provide habitat and screening. Overall, there is a lack of data, either qualitative or quantitative, for staff to understand the functions and values of the original buffer. As such, the goals and objectives of the mitigation plan are too broad – essentially aiming to improve buffer

function without analyzing and identifying specific functions that will need to be improved as a result of impacts from development.

Staff recommends that a final mitigation plan be provided with the building permit application, in accordance with BIMC 16.20.180.G.3.b. The final mitigation plan shall include a quantitative or qualitative analysis, including supporting data, of buffer functions. Updated goals and objectives as a result of the original buffer functions shall also be provided. The City must agree that the final mitigation plan will result in no net loss of critical area function and value prior to building permit issuance. (Condition 5) Staff also notes that the type and amount of buffer enhancement proposed is typical for similar projects, so the Hearing Examiner may wish to consider the benefit of updating the mitigation plan if the outcome will remain the same. It is possible that this issue could be discussed further, and potentially resolved, at the project hearing.

Figure 4 – Mitigation proposal



10. The proposal protects the critical area functions and values consistent with the best available science and results in no net loss of critical area functions and values;

Staff response: As mentioned, the wetland report does not identify specific functions and values of the existing buffer. However, buffer enhancement is a typical type of mitigation for buffer impacts and presumably can protect a range of different functions and values. The conclusion of the wetland report states that the mitigation will provide

a functional lift for the existing buffer and result in no net loss of ecological functions as a result of the project.

11. The proposal addresses cumulative impacts of the action;

Staff response: Cumulative impacts are the combined environmental impacts that accrue over time and space from a series of similar or related individual actions, contaminants, or projects. The proposal addresses the more immediate impacts by siting the development as far away from the wetland edge as reasonably possible and providing buffer enhancement to compensate for permanent impacts to the buffer. Future impacts can be addressed by restricting pesticide, fertilizer, and herbicide use, taking measures to prevent future encroachment into the critical area by installing fencing along the buffer, and maintaining the mitigation areas in perpetuity (Conditions 3 and 15). As conditioned, the project addresses cumulative impacts.

12. The proposal is consistent with other applicable regulations and standards.

Staff response: The proposal is consistent with other applicable regulations and standards of the BIMC. An analysis of these regulations and standards is provided throughout the staff report.

B. BIMC 16.20.100 Aquifer Recharge Protection Area (ARPA)

Aquifer recharge areas are areas that have a critical recharging effect on groundwater used for potable water supplies and/or that demonstrate a high level of susceptibility or vulnerability to groundwater contamination from land use activities. In accordance with WAC 365-190-100, the entirety of Bainbridge Island is classified as an aquifer recharge area to preserve the volume of recharge available to the aquifer system and to protect groundwater from contamination.

Staff response: Pursuant to BIMC 16.20.100.E.1.d, an ARPA is not required for development and activities located on properties protected in perpetuity by a legal instrument acceptable to the city attorney wherein at least 65 percent of the site meets the development standards for aquifer recharge protection areas of this section. More than 65% of the property is protected by the regulations governing wetlands. A notice to title documenting the presence of the restrictions on the site is required. It is the City's policy to not require an ARPA in these situations.

C. BIMC 16.20.140 Wetlands

Wetland Buffers

Buffer widths are based on wetland category, scores for habitat functions on the rating form, and the intensity of the proposed land use. A 15-foot structure or hard surface setback is also required from the edge of any wetland buffer.

Staff response: The category II wetland onsite requires a 110' buffer. The proposal includes a 15' setback around the edge of the reduced buffer.

Fencing and Signs

Wetland buffers shall be temporarily fenced or otherwise suitably marked between the area where the construction activity occurs and the buffer. Fences shall be made of a durable protective barrier and shall be highly visible. Silt fences and plastic construction fences may be used to prevent encroachment on wetlands or their buffers by construction. Temporary

fencing shall be removed after the site work has been completed and the site is fully stabilized per city approval.

Staff response: The project is conditioned to provide temporary fencing prior to commencing construction and to maintain the fencing until the work is complete and site is fully stabilized (Condition 16c).

The director may require that permanent signs and/or fencing be placed on the common boundary between a wetland buffer and the adjacent land. Such signs will identify the wetland buffer. The director may approve an alternate method of wetland and buffer identification, if it provides adequate protection to the wetland and buffer.

Staff response: Permanent fencing is proposed by the applicant. Fencing shall be installed along the buffer edge adjacent to the development area, and in between the primary and reserve drainfield. Fencing shall be indicated on building permit plans. (Condition 8 and 9) A minimum of 2 signs shall also be placed on the fencing, indicating the presence of the protected wetland buffer (Condition 10).

D. BIMC 16.20.160 Performance and Maintenance Surety

The director shall decide when a performance surety is required of an applicant, and the acceptable form of such surety. The amount and the conditions of the surety shall be consistent with the purposes of this chapter; provided, that the minimum amount of the surety, when required, shall be 125% of the estimated cost of performance. A performance surety shall not be required when the actual cost of performance, as documented in a form acceptable to the director, is less than \$1,000. The director shall release the maintenance surety upon determining that performance standards established for evaluating the effectiveness and success of the structures, improvements, and/or compensatory mitigation have been satisfactorily met for the required period.

Staff response: All plantings that are a part of the mitigation plan shall be installed prior to final building permit inspection, or a performance surety shall be provided in accordance BIMC 16.20.160 (Condition 11). A maintenance surety shall be provided prior to final building permit inspection or upon release of the performance surety if plantings are not installed at the time of the final inspection, whichever is applicable (Condition 14).

E. BIMC 16.20.070.G Notice on Title

The owner of any property with field-verified presence of critical area or buffer on which a development proposal is submitted shall file for record with the Kitsap County auditor a notice approved by the director in a form substantially as set forth in Subsection 2 of BIMC 16.20.070.G.

Staff response: The applicant shall submit a recorded notice to title with a site plan prior to the issuance of the building permit, documenting the presence of the critical area onsite (Condition 15).

F. BIMC 2.16.060 Minor Variance

Purpose

Variances are the mechanism by which the city may grant relief from the provisions of the zoning ordinance where practical difficulty renders compliance with certain provisions of the code an unnecessary hardship, where the hardship is a result of the physical characteristics

of the subject property and where the purpose of the comprehensive plan is fulfilled. A variance is authorized only for lot coverage, size of setbacks and/or technical engineering standards. Variances are not authorized for changes in density requirements, building or structure height requirements, open space requirements, or expanding a use otherwise prohibited.

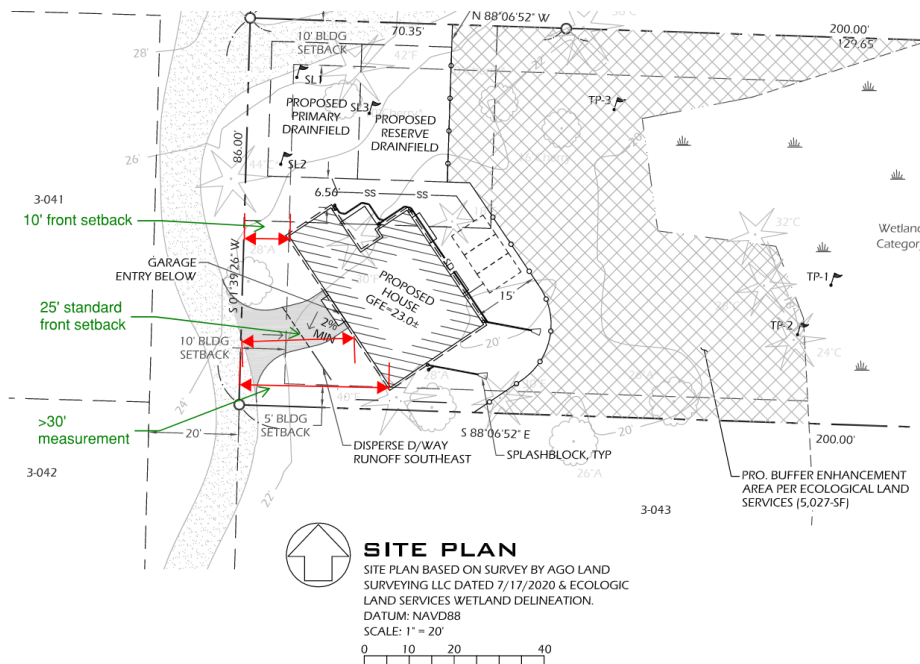
Staff response: The variance is requested for a reduction in the size of the front setback (25' reduced to 10'). The hardship is the presence of the wetland buffer that encumbers the subject property. The variance is requested in order to allow the SFR to be located farther away from the wetland edge, reducing the total impact area to the buffer. In granting the variance and thereby protecting critical areas onsite, the Environmental Element of the Comprehensive Plan is fulfilled. The applicant has appropriately applied for a minor zoning variance as provided in BIMC 2.16.060.B.1, as the proposal is exempt from SEPA review.

Decision Criteria

A minor variance may be approved or approved with conditions if:

1. The granting of the variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the property is located; and

Staff response: Granting the variance will result in the SFR being located 10' from the private street at its NW corner. The distance to the private street will increase from 10' to over 30' at the most southern corner of the SFR. As such, the public welfare will not be affected by the variance, nor will improvements within the vicinity and zone. The variance will not be injurious to the property compared to if the variance was denied and the critical area impacts onsite increased as a result.



2. The variance is requested because of special circumstances related to the size, shape, topography, trees, groundcover, location or surroundings of the subject property, or

factors necessary for the successful installation of a solar energy system such as a particular orientation of a building for the purposes of providing solar access; and

Staff response: The variance is requested because of special circumstances related to location of the subject property, which is within a wetland system. The City has consistently encouraged applicants to apply for zoning variances to reduce setbacks in order to minimize impacts to the critical area, consistent with the RUE decision criteria and the State of Washington Department of Ecology's guidance on wetland impact avoidance measures (["Wetland Avoidance and Minimization Checklists"](#)).

3. The need for a variance has not arisen from previous actions taken or proposed by the applicant; and

Staff response: The variance has not arisen from actions taken or proposed by the applicant. It does not appear that there have been any previous land use actions taken on this property.

4. The variance is necessary for the preservation and enjoyment of a substantial property right possessed by other property in the same vicinity and zone, but that is denied to the property in question because of special circumstances on the property in question, and will not constitute a grant of special privilege inconsistent with the limitations upon uses of other properties in the vicinity in which the property is located; and

Staff response: The City considers the reduction in the front setback, an impact minimization step, a significant part of the RUE request. Without the variance it would be difficult for the applicant to satisfy the RUE decision criteria, "the proposed impact to the critical area is the minimum necessary to allow reasonable use of the property". And without the RUE, the applicant would not be able to develop the property with an SFR. Therefore the variance is necessary for the enjoyment of a substantial property right possessed by other properties in the vicinity, as other properties in the vicinity are developed with SFRs. Other properties in the vicinity that are undeveloped and encumbered by critical areas would similarly be encouraged to seek reductions in zoning setbacks in order to reduce impacts to the critical areas and achieve reasonable use; undeveloped properties in the vicinity are shown in the **bold outline**, below.



5. The variance is consistent with all other provisions of this code, except those provisions that are subject to the variance, and is in accord with the comprehensive plan.

Staff response: The variance is consistent with all other provisions of the BIMC, except those provisions that are subject to the variance, and is in accord with the comprehensive plan, as described in this staff report.

Part VIII – CONCLUSIONS

1. Site Characteristics

The property is completely encumbered by a category II wetland buffer. The property is completely vegetated and contains more than 8 significant trees.

2. History

Appropriate notice of the application was published. The application is properly before the Hearing Examiner.

3. Comprehensive Plan Analysis

The proposal is consistent with the goals and policies of the Comprehensive Plan, including those of the Environmental Element and Land Use Element.

4. Land Use Code Analysis

With appropriate conditions, the proposal conforms to all applicable regulations in the Bainbridge Island Municipal Code.

APPEAL PROCEDURES

Any decision of the Hearing Examiner may be appealed in accordance with BIMC Chapter 2.16.020.R.2.

Conditions:

1. Work shall be completed in substantial compliance with the design and specifications included in the RUE/VAR file, including:
 - a. A building footprint of approximately 880 square feet and roof area of 935 square feet.
 - b. A 2-car garage located within the building footprint.
 - c. A permanent impact area of 3,716 square feet.
 - d. A driveway of approximately 245 square feet.
 - e. A buffer enhancement area of 5,027 square feet.
 - f. Implementation of the avoidance and minimization steps provided in the wetland mitigation plan, including retaining existing native vegetation in the reserve drainfield area.
2. Minor changes to the site plan within the approved impact area may be authorized as a part of the building permit review, provided the square footages of structures and impacts in condition #1 do not increase. Minor changes that further reduce impacts to the critical area may be allowed, provided the wetland mitigation plan is updated and approved as a part of the building permit review.
3. To further minimize impacts to the wetland buffer and ensure there is no reasonable alternative to the proposal with less impact, the following shall be implemented:
 - a. No pesticides, herbicides or fertilizers may be used in fish and wildlife conservation areas or their buffers except those approved by the U.S. Environmental Protection Agency (EPA) and Washington Department of Ecology and applied by a licensed applicator in accordance with the safe application practices on the label. This shall be stated on the site plan and recorded with the Notice to Title.
 - b. Lighting on the exterior of the residence shall be limited to the minimum necessary and shall be directed downward and away from the wetland.
 - c. Access of machinery shall be restricted to as few areas as possible, to reduce soil compaction. These areas shall be indicated on the site plan.
 - d. Construction shall take place during the dry season (May through September) to reduce impacts to aquatic resources.
 - e. Tall, dense evergreen vegetation shall be planted around the outside edge of the buffer to improve screening between development and the wetland.
 - f. The buffer enhancement area shall not be cleared or grubbed, except for the removal of invasive species. Downed woody debris shall be retained.
 - g. Plantings located outside of the buffer enhancement area and within the permanent impact area shall consist of native or native equivalent species.
 - h. The construction fencing and permanent split-rail fence shall be located between the primary drainfield and the reserve drainfield.
 - i. No refuse, including but not limited to household trash, yard waste (e.g. lawn clippings) and commercial/industrial refuse, shall be placed in the buffer.

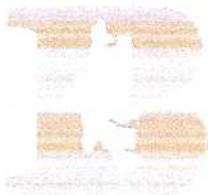
- j. Roofing shall be of a non-leaching material that is not harmful to the environment. Examples of non-leaching materials are metal and tile roofs. Any alternative method proposed requires approval by the City prior to final building permit issuance, and must address BIMC water quality standards, Chapter 13.24, to assure that wetland flora and fauna functions and values are maintained/enhanced.
4. The following tree protection measures must be taken to minimize the removal of significant trees within the wetland buffer:
- a. The 44" cedar along the west lot line must be retained and have its root zone protected to the greatest extent possible during construction.
 - b. Consideration shall be given to retaining the 40" fir and 28" alder along the south lot line by adjusting the site plan to accommodate a 10' radius from the base of the trees for a tree protection area. If this is practically infeasible or will result in an increase in wetland buffer impacts, then this shall be documented with the building permit submittal for City review and acceptance.
 - c. Consideration shall be given to retaining the 42" fir and 10" cherry by installing a minimally invasive drainfield. If this is determined infeasible by the septic designer or Health District, this shall be documented with the building permit submittal for City review and acceptance.

Tree root protection fencing is required for significant trees that will be retained. Tree root protection fencing shall be marked on the final site plan and in place prior to the start of construction.

5. A final mitigation plan shall be provided with the building permit application, in accordance with BIMC 16.20.180.G.3.b. The final mitigation plan shall include a quantitative or qualitative analysis, including supporting data, of buffer functions. Updated goals and objectives as a result of the original buffer functions shall also be provided. The City must agree that the final mitigation plan will result in no net loss of critical function and value prior to building permit issuance, and may require 3rd party review of the final mitigation plan, the cost of which shall be borne by the applicant, should the Director deem necessary
6. A final planting plan shall be submitted with the building permit application, consistent with the results of the updated mitigation plan. The applicant shall give consideration to planting tall, dense evergreen vegetation around the outside edge of the buffer to improve screening between development and the wetland, if determined necessary as a result of the analysis. If existing native vegetation is located along the outside edge of the buffer, this shall be included on the planting plan and labeled as "existing".
7. Lot coverage calculations must be provided with the building permit application.
8. A temporary five-foot-high chain link fence with tubular steel poles or "T" posts shall delineate the area of prohibited disturbance, which is the outer edge of the reduced wetland buffer and reserve drainfield, unless the director has approved the use of a four-foot-high plastic net fence as an alternative. The fence shall be indicated on the site plan. The fence shall be erected and inspected by city staff before clearing, grading and/or construction permits are issued and shall remain in place until construction has been completed, and shall at all times have affixed to it a sign indicating the protected area.

9. Prior to final inspection of the building permit, the temporary fencing shall be replaced with the permanent split-rail fence.
10. A minimum of two signs indicating the presence of a protected wetland buffer shall be placed on the split-rail fence, prior to final inspection of the building permit. Signs shall be made of metal or a similar durable material and shall be between 64 and 144 square inches in size.
11. All plantings shall be installed prior to final building permit inspection, or a performance surety shall be provided in accordance BIMC 16.20.160.
12. A monitoring report shall be submitted annually by December 31st each year, at a minimum, documenting milestones, successes, problems, and contingency actions of the mitigation plan. The mitigation plan shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than seven years.
13. If the performance standards in the mitigation plan are not met, a contingency plan shall be submitted to the Department of Planning and Community Development for approval. Any additional permits or approvals necessary for contingency actions shall be obtained prior implementing the contingency plan.
14. A maintenance surety shall be provided prior to final building permit inspection, or upon release of the performance surety if plantings are not installed at the time of the final inspection, whichever is applicable. The director shall release the maintenance surety upon determining that performance standards established for evaluating the effectiveness and success of the structures, improvements, and/or compensatory mitigation have been satisfactorily met for the required period.
15. The applicant shall record a notice to title with a site plan to document the presence of the wetland buffer with the Kitsap County auditor. Such notice shall provide notice in the public record of the presence of the critical area, the application of this chapter to the property, and that limitations on actions in or affecting such areas may exist. The notice must be recorded prior to the issuance of the building permit.
16. The applicant shall comply with the following conditions to the satisfaction of the City Engineer:
 - a. All underground utilities (well water, septic transport, power, etc.) shall be located/routed to minimize site disturbances to the maximum extent feasible.
 - b. Use of soil sterilant to construct the driveway shall be strictly prohibited.
 - c. Areas outside the building footprint, driveway, septic components and associated drain field and any necessary construction setbacks shall be protected from soil stripping, stockpiling, and compaction by construction equipment through installation of resilient, high visibility clearing limits fencing or equivalent, subject to inspection by the City prior to clearing and construction.
 - d. Hardscaping shall be constructed of permeable materials or contain wide permeable jointing where feasible to allow infiltration or shallow subsurface filtration of surface stormwater. Building permit documentation shall include location and materials for proposed hard surface/hardscape and plans shall include construction details for permeable surfaces and subgrades.
 - e. In conjunction with BIMC 15.20 and 15.21 compliance, surface stormwater from the proposed structures and the developed driveway shall discharge and disperse at a location and in a manner consistent with BMP T5.10B – Downspout Dispersion Systems

and BMP T5.12 – Sheet Flow Dispersion. Strong priority shall be given to diffuse flow methods (i.e. BMP C206: Level Spreader, pop-up emitters, diffuser tee or engineered equivalent) to minimize point discharges of surface stormwater into or towards the wetland on site.



**CITY OF BAINBRIDGE ISLAND
MASTER LAND USE APPLICATION
P100**

FOR OFFICIAL USE ONLY

PROJECT # _____
PLANNER _____

Project Name: Manitou Reasonable Use Exception
Parcel Number(s): 142502-3-040-2005 ↓ Setback minor
Property Address: ? Manitou Beach Rd variance

Type of Application (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Adjustments to an Approved Land Use:
<input type="checkbox"/> Major <input type="checkbox"/> Minor | <input type="checkbox"/> Shoreline Clearing Permit |
| <input type="checkbox"/> Administrative Code Interpretation | <input type="checkbox"/> Shoreline Conditional Use |
| <input type="checkbox"/> Agricultural Conditional Use | <input type="checkbox"/> Shoreline Exemption |
| <input type="checkbox"/> Agricultural Retail Plan | <input type="checkbox"/> Shoreline Substantial Development |
| <input type="checkbox"/> Boundary Line Adjustment | <input type="checkbox"/> Shoreline Variance |
| <input type="checkbox"/> Buffer Enhancement Plan | <input type="checkbox"/> Sign Permit |
| <input type="checkbox"/> Buoy Application | <input type="checkbox"/> Site Plan and Design Review:
<input type="checkbox"/> Major <input type="checkbox"/> Minor |
| <input type="checkbox"/> Conditional Use Permit:
<input type="checkbox"/> Major <input type="checkbox"/> Minor | <input type="checkbox"/> State Environmental Policy Act (SEPA) |
| <input type="checkbox"/> Critical Area Permit:
<input type="checkbox"/> Major <input type="checkbox"/> Minor | <input type="checkbox"/> Subdivision – Large <input type="checkbox"/> Preliminary |
| <input type="checkbox"/> Housing Design Demonstration Project | <input type="checkbox"/> Subdivision – Long <input type="checkbox"/> Final |
| <input type="checkbox"/> Legislative Review of Development Regulations | <input type="checkbox"/> Subdivision – Short <input type="checkbox"/> ALT/ADJ/AMEND |
| <input type="checkbox"/> Pre-Application Conference | <input type="checkbox"/> Tree Removal & Vegetation Management |
| <input checked="" type="checkbox"/> Reasonable Use Exception | <input type="checkbox"/> Variance:
<input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor |
| <input type="checkbox"/> Revision: Type _____ | <input type="checkbox"/> Zoning Verification Letter |
| <input type="checkbox"/> Rezone:
<input type="checkbox"/> Site Specific <input type="checkbox"/> Area-Wide | <input type="checkbox"/> Wireless:
<input type="checkbox"/> EFM <input type="checkbox"/> WCF |
| | <input type="checkbox"/> Other _____ |

Project Description: construction of single family residence
on lot containing critical areas

Front setback reduction to 10', as noted in applicant's supplemental application memo.

Parcel #	Address	Property Owner
142502-3-046- 2005	none	Linda Padgett

Project Contacts (owner, surveyor, engineer, etc)

Property Owner: Linda Padgett		
Address: 5731 75 th Pl. NE		
City: Marysville	State: WA	Zip: 98270
Email: NA	Phone: NA	
Name: Robert Cousins	Agency: Coastal Solutions LLC	
Address: 11027 Manitou Bell Dr ^{NE}	Function: geo tech	
City: Barnbridge Island	State: WA	Zip: 98110
Email: rob@coastalsolns.com	Phone: 206-780-9370	
Name: Keelin Lacey	Agency: Ecological Land Services	
Address: 8900 State Hwy 3 SW ^{SE}	Function: wetland biologist	
City: Bremerton	State: WA	Zip: 98312
Email: Keelin@eco-land.com	Phone: 360-674-7186	
Name:	Agency:	
Address:	Function:	
City:	State:	Zip:
Email:	Phone:	

Authorized Agent (Please attach notarized Owner/Applicant Agreement Form)

Name: Bill Broughton	Agency: Kitsap Law Group	
Address: 3212 NW Byron St.		
City: Silverdale	State: WA	Zip: 98383
Email: bill@kitsaplawgroup.com	Phone: 360-692-4888	

If additional parcels or contacts are required, please attach additional sheets.

Applications **must be submitted in person, and by appointment only** by either the owner or the owner's designated agent. Applications to remove trees and vegetation, do not require an appointment and may be submitted electronically to ocd@bainbridgewa.gov. Should an agent submit an application, a **notarized Owner/Applicant Agreement** must accompany the application.

To schedule an appointment:

<https://www.bainbridgewa.gov/1.10/Planning-and-Building-Submittal-Appointment>

Supporting information and/or documents may be required to review your application. If you have questions about specific requirements for your project, please consult with planning staff prior to submitting your application. **Submittal requirements for each application are described in the Administrative Map for Planning Permits.**

**ELECTRONIC FILES AND TWO (2) PAPER COPIES ARE REQUIRED
FOR ALL SUBMITTED DOCUMENTS**

I affirm, under penalty of perjury, that all answers, statements, and information submitted with this application are correct and accurate to the best of my knowledge. I also affirm that I am the owner or designated agent of the subject site. Further, I grant permission to any and all employees and representatives of the City of Bainbridge Island and other governmental agencies to enter upon and inspect said property as reasonably necessary to process this application.

<u>Bill Braughdon</u>	<u>Bill Braughdon</u>	<u>3/24/2020</u>
Print Name (Owner)	Signature (Owner)	Date

<u>agent for owner</u>		
Print Name (Owner)	Signature (Owner)	Date

Print Name (Owner)	Signature (Owner)	Date

Print Name (Owner)	Signature (Owner)	Date

Print Name (Agent)	Signature (Agent)	Date

**** INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED OR WILL DELAY PROCESSING. ****

Owner/Agent Agreement

The undersigned is (are) the owner(s) of record of the property identified by the Kitsap County Assessor's account number 142502-3-040-2005,

located at _____,

Bainbridge Island, Washington. The undersigned hereby gives (give) consent and approval to _____

William Broughton to act

on his/her (their) behalf as his/her (their) agent to proceed with an application for (please check all items that apply): ☒ preapplication conference

☒ planning permits

☒ construction permits (i.e. building, water/sewer availability, right-of-way, etc)

on the property referenced herein. This agreement authorizes the agent to act on the owner's

behalf for the above checked applications through (date or specific phase) 12/31/2020.

Roger Padgett P.O.A. for Linda Padgett 5/15/2020
OWNER OF RECORD DATE OWNER OF RECORD DATE

STATE OF WASHINGTON)
COUNTY OF Snohomish) ss.
~~KITSAP~~

On this 15th day of May, 2020, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared:

Roger Padgett for Linda Padgett (P.O.A.)

to me known as the individual(s) described in and who executed the foregoing instrument, and acknowledged to me that he/she/they signed and sealed the said instrument, as his/her/their free and voluntary act and deed for the uses and purposes therein mentioned, and on oath stated that he/she/they was (were) authorized to execute said instrument.

WITNESS MY HAND AND OFFICIAL SEAL, hereto affixed the day and year in this certificate above written.

NOTARY PUBLIC
STATE OF WASHINGTON
APRIL FERRET
License Number 202509
My Commission Expires 09-23-2022

April Ferret
Notary Public in and for the State of Washington

Residing at Snohomish County, WA

My appointment expires: 09/23/2022



March 10, 2020

Fidalgo Bay Homes LLC
PO Box 2913
Silverdale, WA 98383

Dear Applicant:

Thank you for meeting with City staff on March 10, 2020 to discuss your proposal to construct a single-family residence on a property encumbered by a wetland and wetland buffer. A summary of the land use review process, applicable Bainbridge Island Municipal Code (BIMC) regulations, comments from reviewers, fees, submittal requirements, and next steps is provided below.

General Information
Pre-Application Conference Date: March 10, 2020
Project Name and Number: Broughton PRE – PLN51678
Project Description: Construct SFR on lot encumbered by wetlands and wetland buffers
Project Address: *no situs address*
Tax Parcel Number(s): 14250230402005
Tax Parcel Size: 0.39 acres
Zoning/Comp Plan Designation: R-2
Planning Contact: Annie Hillier
Development Engineer: Paul Nylund

Land Use Review Procedures – BIMC Chapter 2.16
Land Use Applications Required
The City recommends requesting consolidated project review, as described in BIMC 2.16.170, for both an RUE and a minor variance. See below for further details.
<p>Reasonable Use Exception: BIMC 16.20.080 – Given the extent of the wetlands and buffers, and the inability to achieve reasonable use of the property through other means, an RUE appears to be the only way to develop the property as proposed.</p> <ul style="list-style-type: none"> • Include in application: A complete and detailed written statement of the reason(s) for requesting the RUE and <i>how</i> the proposal will meet the decision criteria (11) for review and approval under BIMC 16.20.080.F. Please pay particular attention to the following criteria: <ul style="list-style-type: none"> ○ The proposal minimizes the impact on critical areas in accordance with <i>mitigation sequencing</i> (BIMC 16.20.030);



- The proposed impact to the critical area is the *minimum necessary* to allow reasonable use of the property; and
- The proposal addresses *cumulative impacts* of the action.

Zoning Variance (minor) (VAR): A minor variance to reduce the front setback from 25' to 5' should be requested, to locate the development as far away from the critical area as possible. (It appears that 20' is proposed; further reduction is strongly recommended.)

- **Include in application:** A complete and detailed written statement of how the request meets the decision criteria in BIMC 2.16.060.D.

See the [Administrative Manual](#) for additional submittal requirements for each permit type.

Fees

\$3,816 (RUE)

\$1,144.67 (VAR)*

*The variance fee is reduced to 1/3 of its cost, for consolidated permit review.

Procedures

For consolidated project review, the application shall follow the application and procedure that results in the most extensive review and decision process. If an RUE and VAR are both applied for, the application decision will be a quasi-judicial decision by the Hearing Examiner. See BIMC 2.16.100 for quasi-judicial review procedures.

Other required reviews:

Bainbridge Island Fire Department review

Development Engineer review

Kitsap Public Health District

Planning Director (makes recommendation to Hearing Examiner)

Bainbridge Island Municipal Code Requirements – Planning Checklist

BIMC 16.04 – Environmental Policy

The project is exempt from the State Environmental Policy Act, as provided in WAC 197-11-800, for minor new construction (WAC 197-11-800(1)(b)(i)).

BIMC 16.12 – Shoreline Master Program

The subject property is outside of shoreline jurisdiction.

BIMC 16.20 – Critical Areas

[BIMC 16.20.080 Reasonable Use Exceptions](#)

Criterion for review and approval of RUEs are provided in BIMC 16.20.080.F. The application must demonstrate and provide a narrative on how each criteria is met.

[BIMC 16.20.140 Wetlands](#)

It appears that the site is encumbered by a category III wetland and associated buffer. **A wetland delineation and rating is required (critical areas report)**, developed in accordance with BIMC 16.20.180.F.

The wetland boundary shall be marked in the field and surveyed by a licensed surveyor. The mitigation plan must include plot plans that contain **a legal description and a survey (boundary and topography) prepared by a licensed surveyor** of the proposed development site, compensation site, and location of existing critical area(s) on each.

All actions within wetlands and their associated buffers must utilize mitigation sequencing, in accordance with [BIMC 16.20.030](#). Please refer to the attached handout for further detail. In general, impacts should be minimized to approximately 2,500 square feet for an SFR, unless otherwise demonstrated to be infeasible. It is not clear that the City could support the currently proposal for 5,633 sq.ft. of permanent impacts, based on the information known at the time of the preapp.

As discussed during the preapplication conference, please consider the impacts of LID foundation techniques and feasible parking scenarios versus a more standard foundation design with parking underneath, and factor in stormwater management implications.

Any impacts that cannot be avoided or eliminated require compensatory mitigation. It is likely that this project will result in permanent impacts the buffer onsite and therefor a **mitigation plan**, prepared in accordance with [BIMC 16.20.180.G](#), is required. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas, including buffers.

[BIMC 16.20.130 Geologically Hazardous Areas](#)

The development appears to be located on or adjacent to a liquefaction area. With your land use application, please submit a geological hazards assessment in accordance with [BIMC 16.20.180.E](#). Note that a liquefaction hazard may impact foundation design feasibility.

BIMC 18.09 – Use Regulations

Development of single family residences is a permitted use under BIMC 18.09.020.

BIMC 18.12 – Dimensional Standards

Zoning: R-2
Lot Coverage: 20%*
Front Yard Setback: 25 ft.**
Side Setbacks: 5' min, 15' total
Rear Yard Setback: 25 ft.
Max Building Height: 30 ft.

***Lot coverage is limited to 1,200 square feet for RUE's.** Lot coverage is defined as: that portion of the total lot area covered by buildings, excluding up to 24 inches of eaves on each side of the building,



any building or portion of building located below predevelopment and finished grade. Any portion of a slatted or solid deck located more than five feet above grade shall be counted towards lot coverage.

****The City strongly recommends that the applicant reduce the 25' front setback to 5', in order to demonstrate that the impact to the wetland buffer is the minimum necessary. Any alternative, such as that currently proposed, should be demonstrated necessary through mitigation sequencing.**

BIMC 18.15 – Development Standards and Guidelines

Development shall comply with the parking standards as set forth in BIMC 18.15.020, which requires **two spaces** for each primary dwelling unit.

BIMC 20.04 – City Fire Code

The project shall comply with all applicable provisions of the adopted Fire Code (International Fire Code, 2015 Edition).

Department/Agency Comments

Development Engineer Comment:

Please see attached. Paul Nylund can be reached at (206) 780-3783 or pnylund@bainbridgewa.gov.

Bainbridge Island Fire District Comment:

The Fire District has no comments at this time.

Please review the City's [Administrative Manual](#) for submittal requirements for both the RUE and the VAR, which include:

- Basic site plan depicting professionally surveyed wetland boundaries
- Wetland critical areas report and mitigation plan
- Mitigation plot plans based on surveyed wetland boundaries
- Project narratives, including 11 decision criteria for the RUE and 5 decision criteria for the minor variance

Once you are ready to submit an application, please schedule an [intake appointment](#). . All fees are due at the time of submittal. For assistance scheduling or questions about the submittal appointment, contact PCD@bainbridgewa.gov or (206) 780-3750.

If you have any questions about the content of this letter, please contact me at (206) 780-3773 or ahillier@bainbridgewa.gov.

Sincerely,

Annie Hillier
Planner



Please note that information provided at the pre-application conference and in this letter reflects existing codes and standards, currently available information about the site and environs, and the level of detail provided in the pre-application conference submittal. Comments provided pursuant to pre-application review shall not be construed to relieve the applicant of conformance with all applicable fees, codes, policies, and standards in effect at the time of complete land use permit application. The comments on this proposal do not represent or guarantee approval of any project or permit. While we have attempted to cover as many of the Planning, Engineering, Building and Fire related aspects of your proposal as possible during this preliminary review, subsequent review of your land use permit application may reveal issues not identified during the is initial review. If the city's pre-application review indicates that the City intends to recommend or impose one or more conditions of permit approval, and if the applicant objects to any of said conditions, the applicant is hereby requested and advised to provide written notice to the City of which conditions the applicant objects to and the reasons for the applicant's objections.



critical
aquifer
recharge
areas

fish &
wildlife
habitat
areas

frequently
flooded
areas

geologically
hazardous
areas

wetlands

Avoidance & Minimization Resource Sheet

Avoiding & Minimizing Impacts in Wetlands, Streams, & Buffers

Who is this handout for?

Anyone involved in a development project located within or adjacent a wetland, stream, or buffer, including applicants and homeowners, consultants, architects, and construction contractors.

Why is avoidance and minimization important?

It is required! Proposed development, uses, and activities are not authorized to impact wetlands, streams, or buffers without **first demonstrating** that steps have been taken to **avoid** and **minimize impacts**, whenever reasonable, through *practicable alternatives*.

"Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."

What is "avoidance"?

Avoidance means designing your project to avoid impacting critical areas **during** and **after** construction. There are many steps in the design process that can incorporate impact avoidance. Permit applicants are required to **document that all efforts** have been made to avoid impacts.

What are some examples of avoidance steps?

- ✓ Locating development as far away from the critical area as possible.
- ✓ Requesting setback variances or easements from neighbors, to locate development farther away from the critical area.
- ✓ Avoiding grading by incorporating natural topography into the site design.
 - ✓ Repositioning the building or the access on the lot.
- ✓ Avoiding impacting higher-quality (rated) wetlands first if there are multiple wetlands on site.
- ✓ In the field, clearly marking critical areas and buffers with high-visibility construction fencing and maintaining it for the life of the construction project.
- ✓ Keeping construction staging and stockpiling of materials out of critical areas and buffers.

What is "minimization"?

Minimization means reducing the amount of impacts **as much as possible** when impacts are unavoidable; and reducing the degree to which impacts affect an area and its ecological functions. You can incorporate actions to minimize impacts into many steps of the design and construction process.

What are some examples of minimization steps?

- ✓ Limiting the disturbance area within the critical area to the minimum necessary (~2,500 square feet for an SFR)
- ✓ Utilizing minimal excavation foundation systems per the 2012 LID Guidance Manual for Puget Sound.
- ✓ Decreasing the building's footprint by adding levels or putting parking underneath the building.

- ✓ Using permeable materials or wide permeable jointing to allow infiltration or shallow subsurface filtration of surface stormwater.
- ✓ Crossing wetlands at their narrowest point and keeping crossings to the minimum width necessary.
- ✓ Limiting impacts to the outer 25% of the buffer.
- ✓ Utilizing existing disturbed areas, and revegetating after construction if feasible.
- ✓ Planting tall, dense native evergreen vegetation around the outside edge of buffers to improve screening between development and sensitive areas.
- ✓ Limiting the footprint of proposed structures to the minimum necessary to achieve their purpose.
- ✓ Using low-pressure tires or tracks on equipment to help prevent soil compaction.
- ✓ Using clean fill materials so that invasive plants and animals are not introduced into the project site.
- ✓ Using non-leaching roofing materials, such as metal or tile.

How do I document these steps?

Applicants document these steps as a detailed narrative or checklist that accompanies a project application. The avoidance and minimization steps are a part of a larger required sequence, called **mitigation sequencing**. All steps of the sequence must be documented, but we have chosen to focus on the first two – avoidance and minimization – because too often project designers move quickly past the avoidance and minimization steps and begin looking for ways to compensate for impacts that could be reasonably avoided or reduced.

Can I impact a critical area if I am willing to provide compensatory mitigation, such as buffer enhancement?

Not necessarily! You must first demonstrate an inability to avoid and reduce all impacts through the first 4 steps before *compensation* of impacts will be allowed.

This is based the **functions** and **values** of the original critical area. See BIMC 16.20.180.G for mitigation plan requirements.

Mitigation sequencing in BIMC 16.20.030:

1. **Avoid** the impact altogether by not taking a certain action or parts of an action;
2. **Minimize** impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
3. **Rectify** the impact by repairing, rehabilitating, or restoring the affected environment;
4. **Reduce or eliminate** the impact over time by preservation and maintenance operations during the life of the action;
5. **Compensate** for the impact by replacing, enhancing, or providing substitute resources or environments; and
6. **Monitor** the impact and take appropriate corrective measures.

If I need help, what resources are available?

- Consulting biologist
- LID Resources webpage: <http://www.wastormwatercenter.org/lid-resources/>
- Department of Ecology's avoidance and minimization checklist: <https://fortress.wa.gov/ecy/ezshare/sea/Wetlands/AvoidanceMinimizationchecklist.pdf>
- Department of Ecology's wetland contacts: <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources/Contacts-by-subject-region>
- Project planner and development engineer

Why should I do this?

Carefully considering the techniques and thoroughly documenting your efforts will help you prepare more complete applications, which facilitates faster review and decisions – and protects the island's finite environmental resources.

Questions: pcd@bainbridgewa.gov or 206.780.3770

You may also visit us in person at the Department of Planning and Community Development. Check COBI website for hours.

City of Bainbridge Island
280 Madison Avenue N
Bainbridge Island, WA
www.bainbridgewa.gov

SITE ASSESSMENT REVIEW: COMPLETE

Date: March 11, 2020

SmartGov Case No.: SAR803XX

Owner: William Broughton

Mailing Address: 3212 NW Byron St 104, Silverdale, WA 98383, bill@kitsaplawgroup.com

Applicant/Agent: Jason Galbreath, jasong@windermere.com

Project: Broughton Manitou Beach Road SFR

Site Location: Lot 40 Manitou Beach Road

Tax Identification No.: 14250023-040-2005

This completed Site Assessment Review (SAR) letter serves as an endorsement from the Department of Public Works of the project with recommendations to achieve Low Impact Development (LID) to the maximum extent practicable based on the Department of Ecology's Storm Water Management Manual for Western Washington (SWMMWW). The following LID recommendations apply to the site as it has been presented in the application to reduce vegetation removal, minimize hard surface installation, and mimic natural hydrology. This assessment is non-binding, unless the recommendations are as required under BIMC 15.20. Application for permits with the City of Bainbridge Island for which a SAR is required shall be in substantial conformance with this proposal, or, else a new SAR shall be required.

Project Surfaces/Thresholds:

Threshold	Proposed Project
Proposed New/Replaced Hard Surface Total	~1300 sf
Proposed Land Clearing/Disturbance	~5600 sf
Existing Site Impervious Coverage	~0
Total Site Area	~17200 sf
Site Previously Developed Under Adopted Stormwater Regulations (after 2/10/1999)	NO
Type of Development (New or Redevelopment)	Redevelopment

General Recommendations:

- This project proposes construction of a new single family residence (SFR), driveway, and associated on-site septic drain field totaling approximately 1300 sf of new and replaced hard surfaces on a currently undeveloped ~17200 sf lot located north of Manitou Beach Road. Initial review indicates the property is fully encumbered by an existing wetland and associated buffer. These critical areas will strongly influence low impact development decisions for the project. This SAR letter serves as ***Development Engineering comments on the Reasonable Use Exception (RUE) Pre-Application conference*** conducted by COBI Planning and Community Development (PCD) and will also serve as the Low Impact Development Site Assessment Review for the follow on building permit. Assuming that an RUE is granted, the proposed work shall be permitted, reviewed, constructed and inspected under a building permit issued by COBI Planning and Community Development.
- An application for **Building permit** will require the project demonstrate compliance with applicable minimum requirements (MRs) # 1 through 5 of the City's adopted stormwater manual.
 - MR#1 – Develop a Permanent Stormwater Site Plan (SSP).
 - MR#2 – Develop a Construction Erosion Control Plan: Also known as Stormwater Pollution Prevention Plan (SWPPP).
 - MR#3 – Source Control of Pollution – Generally N/A for projects of this scope (residential).
 - MR#4 – Preservation of Natural Drainage Systems and Outfalls
 - MR#5 – On-Site Stormwater Treatment
- **Develop a Permanent Stormwater Site Plan (MR #1):** The SSP is the comprehensive report containing all the technical information and analysis necessary for the City to evaluate a proposed development project for compliance with stormwater requirements. Contents of the SSP will vary with the type and size of the project,

and individual site characteristics, and contain site-appropriate development principles, as required, to retain native vegetation and minimize impervious surfaces to the extent feasible.

- Project is less than 5,000sf of new/replaced hard surface so this plan is required but does not have to be created by (or under the direction of) a professional engineer licensed to practice in Washington State. The SWMMWW volume I, section I-3.1.5, Step 5 offers additional guidance on content and format of the plan and narrative to assist the applicant in preparation and submittal for review by COBI Development engineering staff.
- Compliance with MR#2 *Develop a Construction Erosion Control Plan* requires submittal and approval of a Stormwater Pollution Prevention Plan (SWPPP), also called an Erosion Control Plan. The SWPPP applies to all land-disturbing activities and temporary impacts associated with the project. A well followed SWPPP with established clearing and disturbance limits and clearly thought out phasing helps to minimize unnecessary destruction of healthy soils during the construction process.
 - Applicant should complete COBI form B109D (available online) and annotate the location of intended erosion control on the stormwater site plan drawing and maintain that with the building permit when issued by COBI Planning and Community Development. Please refer to the SWMMWW, Vol I, section I-2.5.2 for additional explanation of the 13 elements that a SWPPP is required to consider and address.
 - Erosion control devices shall be installed to prevent sedimentation of any existing drainage system and to retain stormwater pollutants on-site that are generated from site preparation operations.
 - Temporary construction entrances and access roads shall be constructed of inert materials. Recycled concrete is strictly prohibited.
 - Presence of wetland on site in proximity to construction operations requires extra care and preparation to prevent precipitation events from adversely impacting the flow to the wetland and allowing excess sediment to accrue in the wetland as a result.
- MR#3 *Source Control of Pollution* – Generally N/A for projects of this scope (residential).
- MR#4 *Preserve all existing and natural drainage channels*. COBI assesses that some impacts from this project are anticipated to existing and natural drainage channels given the wetlands and groundwater on site. Overflow stormwater and any other excess surface water not adequately treated on-site via the BMP's in MR #5 must still be safely discharged through the site in a manner that has no adverse impacts to downstream properties. In accordance with this requirement, where no natural channel is defined moderate shaping and grading to any existing drainage swale may be accomplished if existing drainage patterns are maintained.
- MR#5 – *On-Site Stormwater Management*. Project shall employ on site BMP's to infiltrate, disperse, and retain stormwater runoff on-site to a feasible extent without causing flooding or erosion impacts. Use list #1 (SWMMWW Vol I, I-2.5.5) for each runoff generating surface (Lawn, Roofs or Other Hard Surfaces) and select the first BMP that is considered feasible
 - Selection rationale and Infeasibility criteria per the SWMMWW shall be documented in the SSP overview, especially when a BMP is deemed infeasible and the next lowest priority BMP is considered. Use COBI Form B109b to document infeasibilities and include it as part of the SSP when submitting for review.
 - Site soils and areas that support infiltration (shown not to meet the infeasibility criteria of the stormwater manual) would require full-downspout infiltration or a rain garden sized per the Rain Garden Handbook for Western Washington meeting the 'GOOD' performance standard.
 - Surface stormwater from driveway and parking surfaces shall receive pre-treatment prior to discharging to the wetlands or leaving the site by directing stormwater to vegetated dispersion strips, rain gardens where soils allow, or the use of permeable pavement (outside of the ROW only), or other alternatives demonstrated to be consistent with MR #5, On-Site Stormwater Management of the SWMMWW.
 - As discussed in the Pre-Application conference, the relatively small quantity of hard surface combined with the likely reduced infiltrative capacity of soils adjacent to wetlands make it likely that standard downspout splash blocks (per BMP T5.10B), when properly installed, will create a compliant on site stormwater solution for this project.

Other Low Impact Development design considerations

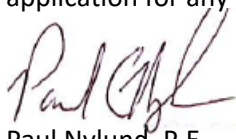
- Placement of any rain garden, infiltration system and/or downspout dispersion systems shall comply with the [Kitsap County Health Ordinance 2008A-01](#) for setbacks from wells, primary septic fields and reserve areas, and septic system components. (see Table 1B of the ordinance). It's highly recommended you Include any proposed stormwater measures with the septic BSA to avoid future permitting conflicts.
- Retaining or planting trees within 20 feet of hard surfaces is recommended to reduce peak runoff amounts.
- Consider the placement and alignment of any new driveway to minimize clearing of significant trees and optimize possibilities for dispersing stormwater overland.
- Hardscaping should be constructed of permeable materials or contain wide permeable jointing where feasible to allow infiltration or shallow subsurface filtration of surface stormwater.
- Consider utilizing minimal excavation foundation systems per the 2012 Low Impact Development Guidance Manual for Puget Sound as means of minimizing impacts to the wetland on site. Appropriate design and construction professionals with previous experience building with this technology should be consulted for analysis and comparison to traditional foundation systems. This analysis should inform the decision rationale for foundation selection and should be included with Building Permit application. This rationale may also be affected by the geotechnical engineering assessment (see below).
- The project is located in or adjacent to an area mapped as a liquefaction zone, which is a seismic hazard area characterized as a Geologically Hazardous Area. A geologically hazardous area assessment/reconnaissance performed by a geotechnical engineer or other qualified personnel shall be required as part of the land use (RUE) permit application. Any recommendations or further constraints noted in that report will be carried over to the building permit as conditions of permit approval.

ARPA

- Any proposed development or activity requiring a site assessment review (SAR), located within the R-0.4, R-1 or R-2 zoning designation, requires designation of an Aquifer Recharge Protection Area (unless exempt under BIMC 16.20.100.E.1(a-d)). Initial Public Works evaluation is that this property **will not** require designation of an ARPA due to the size of the lot/building envelope. If necessary, any proposed ARPA shall meet the general requirements and design standards under BIMC 16.20.100.D and E.
 - **COBI Planning and Community Development holds the final determination authority for ARPA designation compliance and will review and validate this requirement during the permit review process.** If you have questions about the Aquifer Recharge Protection Area (ARPA) or other critical areas requirements for wetlands, fish and wildlife habitat conservation areas, or geologically hazardous areas located on or adjacent to your property, please contact the Planning Department at PCD@bainbridgewa.gov or (206) 780-3770.

Summary

These recommendations are not fully inclusive of all requirements for the site proposal and do not constitute an approval, permit or a planning level/Reasonable Use Exception review. They represent a site-specific analysis and review of low impact development principles based on the project proposal and define some of the civil site design and documentation requirements going forward in the permitting process for this project. These comments also serve as Development Engineering comments out of the Pre-Application process. Please don't hesitate to contact COBI Development Engineering with any questions or concerns. This letter will be required as a submittal with the follow-on application for any building or land use (clearing) permit associated with the single-family residence project on this site.



Paul Nylund, P.E.
Development Engineer
Public Works, Engineering



Coastal Solutions, LLC

11027 Manitou Beach Drive NE
Bainbridge Island, WA 98110
206.459.7264

Subsurface Exploration and Geotechnical Engineering Investigation

Broughton Residence

Prepared for:

William H. Broughton
3212 BW Byron St, Suite 101
Silverdale, WA 98383

Project No. 20024



Coastal Solutions, LLC

11027 Manitou Beach Drive NE
Bainbridge Island, WA 98110
206.459.7264

May 1, 2020

Bill Broughton
3212 BW Byron St, Suite 101
Silverdale, WA 98383

Re: Subsurface Exploration and Geotechnical Engineering Investigation

Broughton Residence
Parcel No. 142502-3-040-2005
Bainbridge Island, Washington
Project No. 20024

Dear Mr. Broughton:

This report summarizes Coastal Solutions' observations made during a geotechnical engineering evaluation of your proposed new residential project. The purpose of this investigation was to observe and evaluate the existing surface and subsurface conditions at the site with regard to the proposed improvements and to provide recommendations for foundation design. Our scope of work included advancing two exploration pits at the site.

Project Description

The site is located north of Manitou Beach Drive NE on Bainbridge Island. The location of the site is shown on the attached Figure 1 - *Site and exploration Plan*. Approximate development areas including the house footprint and proposed septic system layout are also shown on this plan. The site plan also shows the approximate edge of a wetland area that includes portions of the site. A more detailed wetland delineation including locations and buffer dimensions are presented in a wetlands report prepared by Ecological Land Services.

The proposed project includes construction of a new house with associated driveway and septic system. This report addresses subsurface conditions and geotechnical recommendations for the house.

Observations

Site Conditions and Topography

The site lies within a broad topographic low area north of Manitou Beach Drive NE. Groundwater seepage was encountered at 3 feet below the ground in one of our explorations (EP-2) adjacent to the wetland boundary. The broader area contains a pond with a discharge to Murden Cove and various wetland areas. The site, as well as other developed properties nearby, is accessed by an existing easement road likely constructed of fill. Regionally the area was likely a back-beach marsh area prior to the construction of the road and the houses in the area. Topography at the site is relatively flat with a gentle slope to the southeast toward the

wetland area. Regional topography in the area rises gently to the north. The project lot was bordered by the easement road to the west, developed residential property to the north, and an undeveloped lot to the south. The wetland area to the east is located largely on the adjacent private property.

Surface Drainage

We noted no signs of uncontrolled surface water at the site or signs of surface erosion due to concentrated surface flow.

Vegetation

Vegetation at the site consisted of scattered fir, maple, and alder trees with dense native and invasive groundcover.

Subsurface Explorations

Exploration Pits

Our field study included excavating two exploration pits on the site to gain subsurface information specific to the location of the new house. The exploration pits were completed using a track-mounted excavator operated under subcontract to Coastal Solutions, LLC. During the excavating process, soil densities were estimated based on excavator bucket resistance and field tests of samples retrieved. The pits were continuously observed and logged by an engineering geologist from Coastal Solutions, LLC. The various types of sediments, as well as the depths where characteristics of the sediments changed, are indicated on the attached exploration logs in Appendix A. The depths indicated on the logs where conditions changed may represent gradational variations between sediment types. Approximate test pit locations are shown on the attached *Site and Exploration Plan* - Figure 1.

Subsurface Conditions

Soils

Subsurface conditions at the site were fairly consistent across both exploration pits. As shown on the test pit field logs the exploration pits generally encountered loose to medium dense, moist, sand with gravel and silt interpreted as Vashon recessional outwash overlying very dense silty sand with sand and gravel interpreted as Vashon lodgment till. The relative locations and relationships between the soils encountered as well as groundwater levels at the time of drilling are presented on the attached logs. A more detailed description of the sediments encountered is presented below from youngest to oldest.

Vashon Recessional Outwash

Vashon recessional outwash consists mainly of loose to medium dense sand with variable amounts of gravel and silt. These soils were deposited as the Vashon ice sheet melted and receded to the north between 10,000 and 15,000 years ago. These sediments are often located at the ground surface, are highly variable over short distances, and generally discontinuous. As the result of glacial melting, these soils were not compressed by ice and typically exhibit

variable compressibility characteristics often needing engineering preparation prior to being used as foundation support.

Vashon Lodgment Till

Vashon lodgment till was encountered in both exploration pits at depths of 3 and 4 feet for EP-1 and EP-2 respectively. These soils were deposited during the last major glaciation of the Puget lowland approximately 15,000 to 18,000 years ago. As the ice sheet passed over the pre-existing landscape, the till was deposited as a mixture of gravel, sand, silt, and clay entrained in the lower portion of the glacier which was then deposited directly onto the pre-existing landscape. Where exposed to the surface, the upper 2 to 3 feet of weathered till is less dense and showed signs of bioturbation and gravel content reduction through cycles of freeze-thaw. The unweathered till exhibits high shear-strength and low compressibility characteristics.

Groundwater

Groundwater was encountered in EP-2 at the recessional/lodgment till contact. Groundwater appears to be regional associated with the broader wetlands in the area. The groundwater was encountered in the upper Vashon recessional sand with the underlying Vashon lodgment till serving as an aquatard (groundwater barrier) that inhibits downward percolation of groundwater as compared to the more granular and loose sands above.

Groundwater levels generally coincided with seasonal precipitation levels but are directly related to the level of the nearby wetlands and pond. Groundwater levels should be expected to fluctuate accordingly. Groundwater levels should also be expected to vary with precipitation, irrigation practices, time of year, and upland land uses both on and off-site.

Seismic Conditions

Recent studies suggest that several east-west and north-south trending faults project near the project site. The site is located near the Seattle fault zone, a regional east-west trending structure. Fault traces have been identified south of the site in the vicinity of Waterman Point on the Kitsap Peninsula. Other traces have been identified in the vicinity of Blakely Harbor south of the site on Bainbridge Island. North-south faults are also inferred to be present in the waterway between the Kitsap Peninsula and Bainbridge Island.

According to U.S. Geological Survey studies, the last large movement of this fault system occurred about 1,100 years ago, resulting in over 20 feet of surficial displacement. The displacement resulted in uplift of a beach and wave-cut marine bench that is presently visible as the broad terrace that surrounds the south side of Bainbridge Island and present in the Manchester area of Kitsap County. The recurrence interval of large earthquakes and movement along the fault systems in the project area is still unknown, although it is hypothesized to be on the order of several thousand years (the February 28, 2001, 6.8-magnitude earthquake was a different fault system than the Seattle fault system that is located in the vicinity of the site).

Conclusions

The proposed residential project is feasible from a geotechnical engineering perspective. Our analyses indicate that while groundwater was encountered, bearing soils (lodgment till) and the upper recessional soils are at low risk of liquefaction during a design seismic event due to density and high fines content. Liquefaction is the sudden transformation of previously solid soil mass into a partially liquefied condition as a result of energy input, typically during a seismic event.

Recommendations

Spread footings

Spread footings may be used to support the proposed house provided they are founded directly into the very dense lodgment till encountered at depths ranging from 3 to 4 feet below grade. For footings that bear directly on undisturbed till a maximum allowable soil bearing pressure of 3,000 pounds per square foot (psf) may be used for design purposes. This bearing capacity can be increased by up to 1/3 for transient wind and seismic loading.

Based on the depth to bearing soils, excavations of 3 to 4 feet will be required for footing areas through the recessional outwash soils. The recessional and lodgment till have a relatively high fines content (those grain sizes that pass through a #200 sieve). As a result, these soils are highly moisture sensitive and can be difficult to achieve minimum compaction requirements if the soil is over optimum moisture content. For this reason, we recommend avoiding earthwork activity during winter months.

If backfilling is required to raise footings subgrade a viable alternative is the use of controlled density fill (CDF). CDF consists of lean mix concrete using a 1- or 2-sack Portland cement mix. Once excavations are complete and the subgrade soils have been properly prepared, CDF can be placed directly in the excavations. The till is well suited to pouring CDF neat to the excavation sidewalls. If this method is used, we recommend lateral over-excavation of a minimum of 6 inches outside the design footing width on all sides of the footing and down to the bearing layer at 1.5 to 3 feet. Some caving of the excavation sidewalls will occur particularly if fill is encountered.

Alternative foundations such as pin piles were considered to penetrate the recessional outwash soils however this type of foundation was determined to be infeasible due to low anticipated embedment depths into the very dense lodgment till bearing soils.

Temporary Excavations

We understand that excavations on the order of 4 to 5 vertical feet may be required. Site safety including the stability of onsite excavations is the responsibility of the contractor. However, for estimating purposes, we recommend that that temporary excavations over 4 feet be made at a maximum slope of 1H:1V (horizontal:vertical). Groundwater was encountered within 4-feet of the surface throughout the project area and will be a factor in near surface construction. Groundwater levels will likely drop over the course of the summer months as the wetland/pond level gets lower, but the contractor should expect high groundwater conditions at or near the

ground surface. If groundwater is encountered during footing or access excavations, the above recommendations may need to be altered based on the actual conditions encountered.

Recommendations for Additional Services

Once the site development plans and structure loads are determined, we recommend that you retain Coastal Solutions, LLC to provide a geotechnical engineering review of the plans and specifications.

Limitations

This report was prepared for the exclusive use of the Owner, Architect, and Engineer for specific application to the design of the project at this site as it relates to the geotechnical aspects discussed herein. The conclusions and recommendations provided above are based on the information collected during our subsurface exploration program and conceptual project plans. Within the limitations of scope, schedule, and budget, our services have been performed in accordance with generally accepted geotechnical engineering and engineering geology practices in effect in this area at the time our letter-report was prepared and no other warranty, expressed or implied, is made. Our observations, findings, and opinions cannot eliminate risk but are a means to identify and reduce the inherent risks to the owner. The data and report should be provided to prospective contractors for their information, but our report, conclusions, and interpretations should not be construed as a warranty of subsurface conditions included in this report.

If there is a substantial lapse of time between the submission of this report and the start of construction at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, or appear to be different from those described in our report, we recommend that we review our report to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

William H. Broughton
May 1, 2020

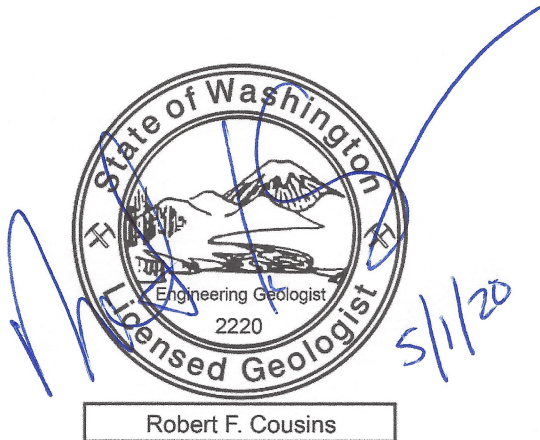
Project No. 20024

Closure

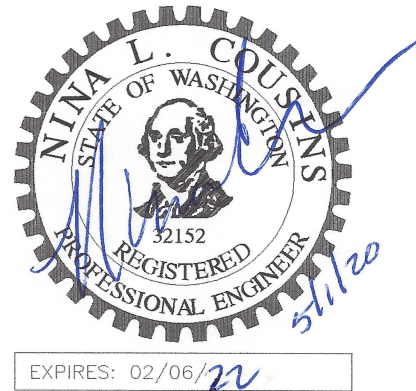
It has been a pleasure to provide these services to you. If you have any questions, please do not hesitate to call.

Sincerely,

COASTAL SOLUTIONS, LLC



Robert F. Cousins, LEG
Principal Geologist
rob@coastalsolns.com



Nina L. Cousins, PE
Principal Engineer
nina@coastalsolns.com

Attachments:

- Figure 1 - Site and Exploration Plan
- Appendix A Exploration Logs EP-1 and EP-2

BROUGHTON RESIDENCE
PARCEL NO. 142502-3-040-2005
BAINBRIDGE ISLAND, WA 98110

Appendix A

Exploration Logs

APPENDIX A**EXPLORATION PIT LOGS: Broughton Residence****EP-1** Location: Eastern Lot area

DEPTH(ft)	SOIL DESCRIPTION	NOTES
0 – 0.2	Loose, moist brown, organic-rich, silty SAND (topsoil)	
0.2 – 3.0	Medium dense moist, tan mottled brown, silty sand, trace gravel (Vashon Recessional Outwash)	
3.0 – 3.5	Very dense moist, tan silty sand with gravel (Vashon Lodgment till)	

Bottom of EP: 3.5 feet, no caving, no seepage.**EP-2** Location: North Central

DEPTH(ft)	SOIL DESCRIPTION	NOTES
0 - 0.4	Loose, damp organic-rich silty SAND (topsoil)	
0.6 – 4.0	Loose, moist, tan mottled brown, silty sand with gravel, (Vashon Recessional Outwash)	
4.0 – 4.5	Very dense moist, tan silty sand with gravel (Vashon lodgment till)	

Bottom of EP: 4.5 feet, no caving, light seepage at 4 feet



City of Bainbridge Island

Department of Planning & Community Development

280 Madison Avenue North, Bainbridge Island, WA 98110

Phone: 206-842-2552 Email: pcd@bainbridgewa.gov

Website: www.bainbridgewa.gov

Portal: <https://ci-bainbridgeisland-wa.smartgovcommunity.com/portal>

NOTICE OF INCOMPLETE APPLICATION

PROJECT: Manitou Reasonable Use Exception (RUE) & Variance (VAR) (PLN51687 RUE/VAR)

PROJECT LOCATION: *no situs address* Manitou Beach Dr NE, Bainbridge Island, WA 98110

DATE DETERMINATION MAILED: June 12, 2020

TO COMPLETE THIS APPLICATION, THE FOLLOWING ITEMS (1-4) MUST BE SUBMITTED TOGETHER, AS A SINGLE RESUBMITTAL PACKAGE:

1. A complete and detailed written statement of *how* the request, to reduce the front setback from 25' to 5', meets each decision criterion in BIMC 2.16.060.D.
2. A complete and detailed written statement of *how* the proposal meets each decision criterion in BIMC 16.20.080.F. (The applicant may wish to coordinate with the wetlands biologist in addressing the decision criteria.)
3. The owner or agent must add the variance request to the project description on the Master Land Use Application form that was submitted (e.g. "Requesting a reduction in front setback to 5ft.").
4. A survey, in accordance with BIMC 16.20.140.B.3: The wetland boundary shall be marked in the field and surveyed by a licensed surveyor. The surveyed wetlands shall be sized and mapped on a scaled site plan.
 - a. The mitigation plan, including compensation sites and proposed development, shall also be depicted on a site plan that depicts surveyed wetland boundaries.
5. Please provide a complete site plan (see [Administrative Manual](#) for basic site plan requirements). Contours must be shown, as well as setbacks, areas of disturbance, utilities/stormwater facilities, and in this case, significant trees should also be depicted (retained and removed).

Please refer to the preapplication summary letter (Attachment A) for additional details regarding application requirements.

Consideration of following revisions (5-6) to the wetland mitigation plan is required prior to the City's recommendation to the Hearing Examiner. Once these items are addressed, the City will route the wetland mitigation plan to a 3rd party consultant for final review. Additional revisions or questions may be forthcoming.

6. Site plan (Figure 3 and 10) depicts a 10' setback from front property line. Please reduce to 5' and adjust the square footage of the buffer enhancement/impact area accordingly.
7. Consider amending the mitigation sequencing steps to include additional measures to avoid and minimize impacts to the buffer. As currently proposed, this decision criterion is not met. See the **handout attached to**

the preapplication letter for suggestions. For example, please address the following:

- a. Can the permanent impact area be reduced by including the reserve drainfield in the buffer enhancement area or leaving it in its existing, more natural state? (See Attachment B for an example.)
- b. Please determine whether the septic tanks can move any closer to the development area (SFR or drainfield). Can the septic tanks be reoriented to reduce the impact area?
- c. Can the development area, including the SFR, be shifted closer to the SW corner of the property and clustered in a smaller area?
- d. Is a low-impact development (LID) foundation design feasible? Please clearly identify any LID consideration from the Site Assessment Review letter (included in Attachment A) that are proposed.

Please note: Please submit the information requested within 60 days. Failure to do so may result in cancelation of the application in accordance with BIMC 2.16.020.J.3.

Please email the requested items to me directly. Please do not hesitate to contact me if you have any further questions.

Sincerely,

Annie Hillier, ahillier@bainbridgewa.gov
Associate Planner



March 10, 2020

Fidalgo Bay Homes LLC
PO Box 2913
Silverdale, WA 98383

Dear Applicant:

Thank you for meeting with City staff on March 10, 2020 to discuss your proposal to construct a single-family residence on a property encumbered by a wetland and wetland buffer. A summary of the land use review process, applicable Bainbridge Island Municipal Code (BIMC) regulations, comments from reviewers, fees, submittal requirements, and next steps is provided below.

General Information
Pre-Application Conference Date: March 10, 2020
Project Name and Number: Broughton PRE – PLN51678
Project Description: Construct SFR on lot encumbered by wetlands and wetland buffers
Project Address: *no situs address*
Tax Parcel Number(s): 14250230402005
Tax Parcel Size: 0.39 acres
Zoning/Comp Plan Designation: R-2
Planning Contact: Annie Hillier
Development Engineer: Paul Nylund

Land Use Review Procedures – BIMC Chapter 2.16
Land Use Applications Required
The City recommends requesting consolidated project review, as described in BIMC 2.16.170, for both an RUE and a minor variance. See below for further details.
<p>Reasonable Use Exception: BIMC 16.20.080 – Given the extent of the wetlands and buffers, and the inability to achieve reasonable use of the property through other means, an RUE appears to be the only way to develop the property as proposed.</p> <ul style="list-style-type: none"> • Include in application: A complete and detailed written statement of the reason(s) for requesting the RUE and how the proposal will meet the decision criteria (11) for review and approval under BIMC 16.20.080.F. Please pay particular attention to the following criteria: <ul style="list-style-type: none"> ○ The proposal minimizes the impact on critical areas in accordance with <i>mitigation sequencing</i> (BIMC 16.20.030);



- The proposed impact to the critical area is the *minimum necessary* to allow reasonable use of the property; and
- The proposal addresses *cumulative impacts* of the action.

Zoning Variance (minor) (VAR): A minor variance to reduce the front setback from 25' to 5' should be requested, to locate the development as far away from the critical area as possible. (It appears that 20' is proposed; further reduction is strongly recommended.)

- **Include in application:** A complete and detailed written statement of how the request meets the decision criteria in BIMC 2.16.060.D.

See the [Administrative Manual](#) for additional submittal requirements for each permit type.

Fees

\$3,816 (RUE)
\$1,144.67 (VAR)*

*The variance fee is reduced to 1/3 of its cost, for consolidated permit review.

Procedures

For consolidated project review, the application shall follow the application and procedure that results in the most extensive review and decision process. If an RUE and VAR are both applied for, the application decision will be a quasi-judicial decision by the Hearing Examiner. See BIMC 2.16.100 for quasi-judicial review procedures.

Other required reviews:

Bainbridge Island Fire Department review
Development Engineer review
Kitsap Public Health District
Planning Director (makes recommendation to Hearing Examiner)

Bainbridge Island Municipal Code Requirements – Planning Checklist

BIMC 16.04 – Environmental Policy

The project is exempt from the State Environmental Policy Act, as provided in WAC 197-11-800, for minor new construction (WAC 197-11-800(1)(b)(i)).

BIMC 16.12 – Shoreline Master Program

The subject property is outside of shoreline jurisdiction.

BIMC 16.20 – Critical Areas

[BIMC 16.20.080 Reasonable Use Exceptions](#)

Criterion for review and approval of RUEs are provided in BIMC 16.20.080.F. The application must demonstrate and provide a narrative on how each criteria is met.

[BIMC 16.20.140 Wetlands](#)

It appears that the site is encumbered by a category III wetland and associated buffer. **A wetland delineation and rating is required (critical areas report)**, developed in accordance with BIMC 16.20.180.F.

The wetland boundary shall be marked in the field and surveyed by a licensed surveyor. The mitigation plan must include plot plans that contain **a legal description and a survey (boundary and topography) prepared by a licensed surveyor** of the proposed development site, compensation site, and location of existing critical area(s) on each.

All actions within wetlands and their associated buffers **must utilize mitigation sequencing, in accordance with BIMC 16.20.030. Please refer to the attached handout for further detail.** In general, impacts should be minimized to approximately 2,500 square feet for an SFR, unless otherwise demonstrated to be infeasible. It is not clear that the City could support the currently proposal for 5,633 sq.ft. of permanent impacts, based on the information known at the time of the preapp.

As discussed during the preapplication conference, please consider the impacts of LID foundation techniques and feasible parking scenarios versus a more standard foundation design with parking underneath, and factor in stormwater management implications.

Any impacts that cannot be avoided or eliminated require compensatory mitigation. It is likely that this project will result in permanent impacts the buffer onsite and therefor a **mitigation plan**, prepared in accordance with [BIMC 16.20.180.G](#), is required. No activity or use shall be allowed that results in a net loss of the functions or values of critical areas, including buffers.

[BIMC 16.20.130 Geologically Hazardous Areas](#)

The development appears to be located on or adjacent to a liquefaction area. With your land use application, please submit a geological hazards assessment in accordance with [BIMC 16.20.180.E](#). Note that a liquefaction hazard may impact foundation design feasibility.

BIMC 18.09 – Use Regulations

Development of single family residences is a permitted use under BIMC 18.09.020.

BIMC 18.12 – Dimensional Standards

Zoning: R-2
Lot Coverage: 20%*
Front Yard Setback: 25 ft.**
Side Setbacks: 5' min, 15' total
Rear Yard Setback: 25 ft.
Max Building Height: 30 ft.

***Lot coverage is limited to 1,200 square feet for RUE's.** Lot coverage is defined as: that portion of the total lot area covered by buildings, excluding up to 24 inches of eaves on each side of the building,



any building or portion of building located below predevelopment and finished grade. Any portion of a slatted or solid deck located more than five feet above grade shall be counted towards lot coverage.

****The City strongly recommends that the applicant reduce the 25' front setback to 5', in order to demonstrate that the impact to the wetland buffer is the minimum necessary. Any alternative, such as that currently proposed, should be demonstrated necessary through mitigation sequencing.**

BIMC 18.15 – Development Standards and Guidelines

Development shall comply with the parking standards as set forth in BIMC 18.15.020, which requires **two spaces** for each primary dwelling unit.

BIMC 20.04 – City Fire Code

The project shall comply with all applicable provisions of the adopted Fire Code (International Fire Code, 2015 Edition).

Department/Agency Comments

Development Engineer Comment:

Please see attached. Paul Nylund can be reached at (206) 780-3783 or pnylund@bainbridgewa.gov.

Bainbridge Island Fire District Comment:

The Fire District has no comments at this time.

Please review the City's [Administrative Manual](#) for submittal requirements for both the RUE and the VAR, which include:

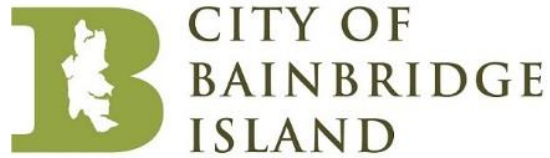
- **Basic site plan depicting professionally surveyed wetland boundaries**
- Wetland critical areas report and mitigation plan
- **Mitigation plot plans based on surveyed wetland boundaries**
- **Project narratives, including 11 decision criteria for the RUE and 5 decision criteria for the minor variance**

Once you are ready to submit an application, please schedule an [intake appointment](#). . All fees are due at the time of submittal. For assistance scheduling or questions about the submittal appointment, contact PCD@bainbridgewa.gov or (206) 780-3750.

If you have any questions about the content of this letter, please contact me at (206) 780-3773 or ahillier@bainbridgewa.gov.

Sincerely,

Annie Hillier
Planner



Please note that information provided at the pre-application conference and in this letter reflects existing codes and standards, currently available information about the site and environs, and the level of detail provided in the pre-application conference submittal. Comments provided pursuant to pre-application review shall not be construed to relieve the applicant of conformance with all applicable fees, codes, policies, and standards in effect at the time of complete land use permit application. The comments on this proposal do not represent or guarantee approval of any project or permit. While we have attempted to cover as many of the Planning, Engineering, Building and Fire related aspects of your proposal as possible during this preliminary review, subsequent review of your land use permit application may reveal issues not identified during the is initial review. If the city's pre-application review indicates that the City intends to recommend or impose one or more conditions of permit approval, and if the applicant objects to any of said conditions, the applicant is hereby requested and advised to provide written notice to the City of which conditions the applicant objects to and the reasons for the applicant's objections.



critical
aquifer
recharge
areas

fish &
wildlife
habitat
areas

frequently
flooded
areas

geologically
hazardous
areas

wetlands

Avoidance & Minimization Resource Sheet

Avoiding & Minimizing Impacts in Wetlands, Streams, & Buffers

Who is this handout for?

Anyone involved in a development project located within or adjacent a wetland, stream, or buffer, including applicants and homeowners, consultants, architects, and construction contractors.

Why is avoidance and minimization important?

It is required! Proposed development, uses, and activities are not authorized to impact wetlands, streams, or buffers without **first demonstrating** that steps have been taken to **avoid** and **minimize impacts**, whenever reasonable, through *practicable alternatives*.

"Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."

What is "avoidance"?

Avoidance means designing your project to avoid impacting critical areas **during** and **after** construction. There are many steps in the design process that can incorporate impact avoidance. Permit applicants are required to **document that all efforts** have been made to avoid impacts.

What are some examples of avoidance steps?

- ✓ Locating development as far away from the critical area as possible.
- ✓ Requesting setback variances or easements from neighbors, to locate development farther away from the critical area.
- ✓ Avoiding grading by incorporating natural topography into the site design.
 - ✓ Repositioning the building or the access on the lot.
- ✓ Avoiding impacting higher-quality (rated) wetlands first if there are multiple wetlands on site.
- ✓ In the field, clearly marking critical areas and buffers with high-visibility construction fencing and maintaining it for the life of the construction project.
- ✓ Keeping construction staging and stockpiling of materials out of critical areas and buffers.

What is "minimization"?

Minimization means reducing the amount of impacts **as much as possible** when impacts are unavoidable; and reducing the degree to which impacts affect an area and its ecological functions. You can incorporate actions to minimize impacts into many steps of the design and construction process.

What are some examples of minimization steps?

- ✓ Limiting the disturbance area within the critical area to the minimum necessary (~2,500 square feet for an SFR)
- ✓ Utilizing minimal excavation foundation systems per the 2012 LID Guidance Manual for Puget Sound.
- ✓ Decreasing the building's footprint by adding levels or putting parking underneath the building.

- ✓ Using permeable materials or wide permeable jointing to allow infiltration or shallow subsurface filtration of surface stormwater.
- ✓ Crossing wetlands at their narrowest point and keeping crossings to the minimum width necessary.
- ✓ Limiting impacts to the outer 25% of the buffer.
- ✓ Utilizing existing disturbed areas, and revegetating after construction if feasible.
- ✓ Planting tall, dense native evergreen vegetation around the outside edge of buffers to improve screening between development and sensitive areas.
- ✓ Limiting the footprint of proposed structures to the minimum necessary to achieve their purpose.
- ✓ Using low-pressure tires or tracks on equipment to help prevent soil compaction.
- ✓ Using clean fill materials so that invasive plants and animals are not introduced into the project site.
- ✓ Using non-leaching roofing materials, such as metal or tile.

How do I document these steps?

Applicants document these steps as a detailed narrative or checklist that accompanies a project application. The avoidance and minimization steps are a part of a larger required sequence, called **mitigation sequencing**. All steps of the sequence must be documented, but we have chosen to focus on the first two – avoidance and minimization – because too often project designers move quickly past the avoidance and minimization steps and begin looking for ways to compensate for impacts that could be reasonably avoided or reduced.

Can I impact a critical area if I am willing to provide compensatory mitigation, such as buffer enhancement?

Not necessarily! You must first demonstrate an inability to avoid and reduce all impacts through the first 4 steps before *compensation* of impacts will be allowed.

This is based the **functions** and **values** of the original critical area. See BIMC 16.20.180.G for mitigation plan requirements.

Mitigation sequencing in BIMC 16.20.030:

1. **Avoid** the impact altogether by not taking a certain action or parts of an action;
2. **Minimize** impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
3. **Rectify** the impact by repairing, rehabilitating, or restoring the affected environment;
4. **Reduce or eliminate** the impact over time by preservation and maintenance operations during the life of the action;
5. **Compensate** for the impact by replacing, enhancing, or providing substitute resources or environments; and
6. **Monitor** the impact and take appropriate corrective measures.

If I need help, what resources are available?

- Consulting biologist
- LID Resources webpage: <http://www.wastormwatercenter.org/lid-resources/>
- Department of Ecology's avoidance and minimization checklist: <https://fortress.wa.gov/ecy/ezshare/sea/Wetlands/AvoidanceMinimizationchecklist.pdf>
- Department of Ecology's wetland contacts: <https://ecology.wa.gov/Water-Shorelines/Wetlands/Tools-resources/Contacts-by-subject-region>
- Project planner and development engineer

Why should I do this?

Carefully considering the techniques and thoroughly documenting your efforts will help you prepare more complete applications, which facilitates faster review and decisions – and protects the island's finite environmental resources.

Questions: pcd@bainbridgewa.gov or 206.780.3770

You may also visit us in person at the Department of Planning and Community Development. Check COBI website for hours.

City of Bainbridge Island
280 Madison Avenue N
Bainbridge Island, WA
www.bainbridgewa.gov

SITE ASSESSMENT REVIEW: COMPLETE

Date: March 11, 2020

SmartGov Case No.: SAR803XX

Owner: William Broughton

Mailing Address: 3212 NW Byron St 104, Silverdale, WA 98383, bill@kitsaplawgroup.com

Applicant/Agent: Jason Galbreath, jasong@windermere.com

Project: Broughton Manitou Beach Road SFR

Site Location: Lot 40 Manitou Beach Road

Tax Identification No.: 14250023-040-2005

This completed Site Assessment Review (SAR) letter serves as an endorsement from the Department of Public Works of the project with recommendations to achieve Low Impact Development (LID) to the maximum extent practicable based on the Department of Ecology's Storm Water Management Manual for Western Washington (SWMMWW). The following LID recommendations apply to the site as it has been presented in the application to reduce vegetation removal, minimize hard surface installation, and mimic natural hydrology. This assessment is non-binding, unless the recommendations are as required under BIMC 15.20. Application for permits with the City of Bainbridge Island for which a SAR is required shall be in substantial conformance with this proposal, or, else a new SAR shall be required.

Project Surfaces/Thresholds:

Threshold	Proposed Project
Proposed New/Replaced Hard Surface Total	~1300 sf
Proposed Land Clearing/Disturbance	~5600 sf
Existing Site Impervious Coverage	~0
Total Site Area	~17200 sf
Site Previously Developed Under Adopted Stormwater Regulations (after 2/10/1999)	NO
Type of Development (New or Redevelopment)	Redevelopment

General Recommendations:

- This project proposes construction of a new single family residence (SFR), driveway, and associated on-site septic drain field totaling approximately 1300 sf of new and replaced hard surfaces on a currently undeveloped ~17200 sf lot located north of Manitou Beach Road. Initial review indicates the property is fully encumbered by an existing wetland and associated buffer. These critical areas will strongly influence low impact development decisions for the project. This SAR letter serves as ***Development Engineering comments on the Reasonable Use Exception (RUE) Pre-Application conference*** conducted by COBI Planning and Community Development (PCD) and will also serve as the Low Impact Development Site Assessment Review for the follow on building permit. Assuming that an RUE is granted, the proposed work shall be permitted, reviewed, constructed and inspected under a building permit issued by COBI Planning and Community Development.
- An application for **Building permit** will require the project demonstrate compliance with applicable minimum requirements (MRs) # 1 through 5 of the City's adopted stormwater manual.
 - MR#1 – Develop a Permanent Stormwater Site Plan (SSP).
 - MR#2 – Develop a Construction Erosion Control Plan: Also known as Stormwater Pollution Prevention Plan (SWPPP).
 - MR#3 – Source Control of Pollution – Generally N/A for projects of this scope (residential).
 - MR#4 – Preservation of Natural Drainage Systems and Outfalls
 - MR#5 – On-Site Stormwater Treatment
- Develop a Permanent Stormwater Site Plan (MR #1):** The SSP is the comprehensive report containing all the technical information and analysis necessary for the City to evaluate a proposed development project for compliance with stormwater requirements. Contents of the SSP will vary with the type and size of the project,

and individual site characteristics, and contain site-appropriate development principles, as required, to retain native vegetation and minimize impervious surfaces to the extent feasible.

- Project is less than 5,000sf of new/replaced hard surface so this plan is required but does not have to be created by (or under the direction of) a professional engineer licensed to practice in Washington State. The SWMMWW volume I, section I-3.1.5, Step 5 offers additional guidance on content and format of the plan and narrative to assist the applicant in preparation and submittal for review by COBI Development engineering staff.
- Compliance with MR#2 *Develop a Construction Erosion Control Plan* requires submittal and approval of a Stormwater Pollution Prevention Plan (SWPPP), also called an Erosion Control Plan. The SWPPP applies to all land-disturbing activities and temporary impacts associated with the project. A well followed SWPPP with established clearing and disturbance limits and clearly thought out phasing helps to minimize unnecessary destruction of healthy soils during the construction process.
 - Applicant should complete COBI form B109D (available online) and annotate the location of intended erosion control on the stormwater site plan drawing and maintain that with the building permit when issued by COBI Planning and Community Development. Please refer to the SWMMWW, Vol I, section I-2.5.2 for additional explanation of the 13 elements that a SWPPP is required to consider and address.
 - Erosion control devices shall be installed to prevent sedimentation of any existing drainage system and to retain stormwater pollutants on-site that are generated from site preparation operations.
 - Temporary construction entrances and access roads shall be constructed of inert materials. Recycled concrete is strictly prohibited.
 - Presence of wetland on site in proximity to construction operations requires extra care and preparation to prevent precipitation events from adversely impacting the flow to the wetland and allowing excess sediment to accrue in the wetland as a result.
- MR#3 *Source Control of Pollution* – Generally N/A for projects of this scope (residential).
- MR#4 *Preserve all existing and natural drainage channels*. COBI assesses that some impacts from this project are anticipated to existing and natural drainage channels given the wetlands and groundwater on site. Overflow stormwater and any other excess surface water not adequately treated on-site via the BMP's in MR #5 must still be safely discharged through the site in a manner that has no adverse impacts to downstream properties. In accordance with this requirement, where no natural channel is defined moderate shaping and grading to any existing drainage swale may be accomplished if existing drainage patterns are maintained.
- MR#5 – *On-Site Stormwater Management*. Project shall employ on site BMP's to infiltrate, disperse, and retain stormwater runoff on-site to a feasible extent without causing flooding or erosion impacts. Use list #1 (SWMMWW Vol I, I-2.5.5) for each runoff generating surface (Lawn, Roofs or Other Hard Surfaces) and select the first BMP that is considered feasible
 - Selection rationale and Infeasibility criteria per the SWMMWW shall be documented in the SSP overview, especially when a BMP is deemed infeasible and the next lowest priority BMP is considered. Use COBI Form B109b to document infeasibilities and include it as part of the SSP when submitting for review.
 - Site soils and areas that support infiltration (shown not to meet the infeasibility criteria of the stormwater manual) would require full-downspout infiltration or a rain garden sized per the Rain Garden Handbook for Western Washington meeting the 'GOOD' performance standard.
 - Surface stormwater from driveway and parking surfaces shall receive pre-treatment prior to discharging to the wetlands or leaving the site by directing stormwater to vegetated dispersion strips, rain gardens where soils allow, or the use of permeable pavement (outside of the ROW only), or other alternatives demonstrated to be consistent with MR #5, On-Site Stormwater Management of the SWMMWW.
 - As discussed in the Pre-Application conference, the relatively small quantity of hard surface combined with the likely reduced infiltrative capacity of soils adjacent to wetlands make it likely that standard downspout splash blocks (per BMP T5.10B), when properly installed, will create a compliant on site stormwater solution for this project.

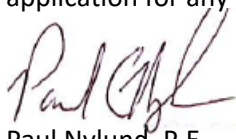
- Placement of any rain garden, infiltration system and/or downspout dispersion systems shall comply with the [Kitsap County Health Ordinance 2008A-01](#) for setbacks from wells, primary septic fields and reserve areas, and septic system components. (see Table 1B of the ordinance). It's highly recommended you Include any proposed stormwater measures with the septic BSA to avoid future permitting conflicts.
- Retaining or planting trees within 20 feet of hard surfaces is recommended to reduce peak runoff amounts.
- Consider the placement and alignment of any new driveway to minimize clearing of significant trees and optimize possibilities for dispersing stormwater overland.
- Hardscaping should be constructed of permeable materials or contain wide permeable jointing where feasible to allow infiltration or shallow subsurface filtration of surface stormwater.
- Consider utilizing minimal excavation foundation systems per the 2012 Low Impact Development Guidance Manual for Puget Sound as means of minimizing impacts to the wetland on site. Appropriate design and construction professionals with previous experience building with this technology should be consulted for analysis and comparison to traditional foundation systems. This analysis should inform the decision rationale for foundation selection and should be included with Building Permit application. This rationale may also be affected by the geotechnical engineering assessment (see below).
- The project is located in or adjacent to an area mapped as a liquefaction zone, which is a seismic hazard area characterized as a Geologically Hazardous Area. A geologically hazardous area assessment/reconnaissance performed by a geotechnical engineer or other qualified personnel shall be required as part of the land use (RUE) permit application. Any recommendations or further constraints noted in that report will be carried over to the building permit as conditions of permit approval.

ARPA

- Any proposed development or activity requiring a site assessment review (SAR), located within the R-0.4, R-1 or R-2 zoning designation, requires designation of an Aquifer Recharge Protection Area (unless exempt under BIMC 16.20.100.E.1(a-d)). Initial Public Works evaluation is that this property **will not** require designation of an ARPA due to the size of the lot/building envelope. If necessary, any proposed ARPA shall meet the general requirements and design standards under BIMC 16.20.100.D and E.
 - **COBI Planning and Community Development holds the final determination authority for ARPA designation compliance and will review and validate this requirement during the permit review process.** If you have questions about the Aquifer Recharge Protection Area (ARPA) or other critical areas requirements for wetlands, fish and wildlife habitat conservation areas, or geologically hazardous areas located on or adjacent to your property, please contact the Planning Department at PCD@bainbridgewa.gov or (206) 780-3770.

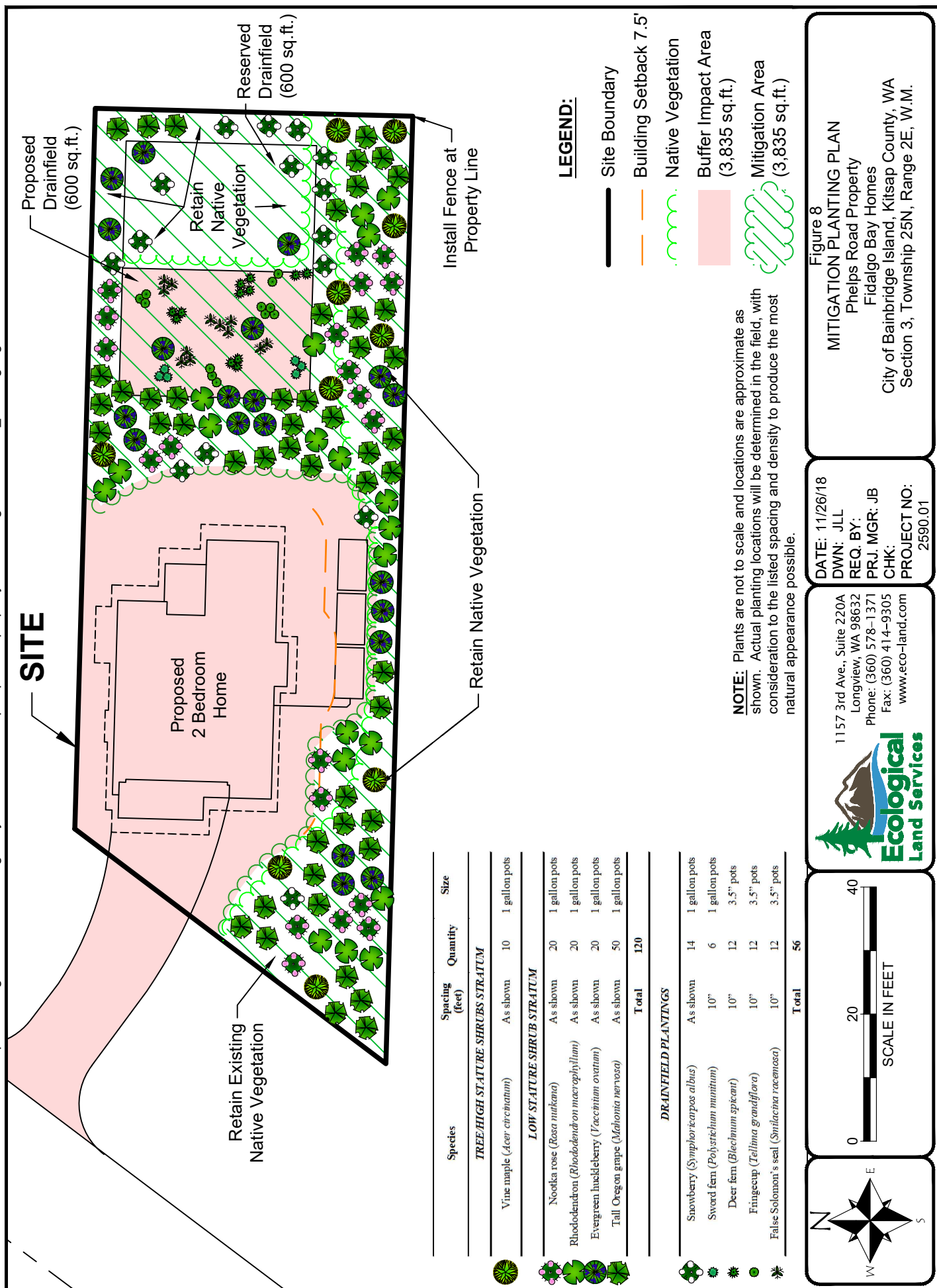
Summary

These recommendations are not fully inclusive of all requirements for the site proposal and do not constitute an approval, permit or a planning level/Reasonable Use Exception review. They represent a site-specific analysis and review of low impact development principles based on the project proposal and define some of the civil site design and documentation requirements going forward in the permitting process for this project. These comments also serve as Development Engineering comments out of the Pre-Application process. Please don't hesitate to contact COBI Development Engineering with any questions or concerns. This letter will be required as a submittal with the follow-on application for any building or land use (clearing) permit associated with the single-family residence project on this site.



Paul Nylund, P.E.
Development Engineer
Public Works, Engineering

11/26/2018 8:58 AM s:\ELSI\WA\Kitsap\bainbridge island\2590.01-phelps road property\2590.01-figures\2590.01_MT.dwg right



SUPPLEMENTAL APPLICATION

Project: Manitou Reasonable Use Exception and Variance (PLM51687 RUE/BAR)

Project Location: Manitou Beach Drive NE, Bainbridge Island, WA 98110

1. How the request to reduce the front setback from twenty-five feet (25') to ten feet (10') meets the decision criteria in BIMC 2.16.060.D.?

(a) A variance to the front yard setback is requested so that the single-family residence can be constructed as far away from the critical area as possible. Without this variance, the residence would need to be constructed closer to the wetland and within the wetland buffer. There will be more disturbance of the critical areas if the variance is not granted. In fact, the granting of the variance will be beneficial to the public welfare and will cause less injury to the property.

(b) The variance is requested because of the special circumstances related to the size, shape, topography, trees, ground cover location, and surroundings of the subject property.

This project is proceeding under an application for a reasonable use exception under the City of Bainbridge Island Critical Area Ordinance. The property contained wetlands and a wetland buffer. The goal is to reduce the disturbance of the critical areas as much as possible. This variance is required because of the special circumstances of this particular parcel of property.

(c) The need for this variance has not arisen from previous actions taken or proposed by the applicant. This property is undeveloped and is currently in its natural state.

(d) This variance is necessary for the preservation and enjoyment of a substantial property right. The reasonable use exception under the critical area ordinance recognizes the right of the property owner to make reasonable use of the property impacted by the critical area. Denial of this variance will result in more significant negative impact to the critical area and will not constitute a granted special privilege inconsistent with limitations upon uses of other property in the vicinity in which the property is located. The existing homes adjacent to this property were constructed before passage of the critical area ordinance, pre City of Bainbridge Island and development occurred without regard to the critical areas.

(e) This variance is consistent with other provisions of this Code and is in accordance with the comprehensive plan. Granting of this variance will be beneficial to the adjacent wetland and wetland buffer and will be consistent with the goals of the comprehensive plan to limit impacts of development adjacent to critical areas.

2. A complete and detailed written statement of how the proposal meets the decision criteria in BIMC 16.20.080.

(a) The reasonable use review criteria are found in Section 16.20.080 of the Bainbridge Island Municipal Code. Each of these criteria will be addressed as follows:

(i) The application of this chapter would deny all reasonable use of this property. The least intensive use of this property is construction of a single-family residence. This property contains wetlands and wetland buffers under the critical areas ordinance that do not allow for any development activity. Without a reasonable use exception, all reasonable use of this property would be denied under the critical area ordinance.

(ii) There is no reasonable alternative to the proposal with less impact to the critical area or its required buffer. The wetland and buffer cover nearly all of the subject property making it impossible to build a single-family residence on the property without approval of a reasonable use exception.

(iii) There is no reasonable alternative to the proposal with less impact to the critical area or its required buffer.

The ordinances governing reasonable use exceptions state that the proposed total lot coverage must not exceed 1,200 square feet for residential development. The City of Bainbridge Island's interpretation of this language is that a structure with a 1,200 square foot footprint is the minimum allowed for a reasonable use exception as well as the maximum allowed. The City's interpretation that allows for a maximum of a 1,200 square foot building footprint has been applied to previous applications, which have been approved by the Hearing Examiner.

3. The proposal minimizes the impact on critical areas in accordance with mitigation sequencing (BIMC 16.20.030). The site plan submitted by the applicant places the residence as close as possible to the access road to minimize adverse impacts to the buffer and wetland area. The wetland report submitted by the applicant includes mitigation measures that are incorporated by reference into this statement.

4. The proposed impact to the critical area is the minimum necessary to allow reasonable use of the property. The proposal for a residence with a 1,200 square foot footprint is the minimum necessary to make reasonable use of the property for this application.

5. The inability of the applicant to derive reasonable use of the property is not the result of the actions by the applicant or the applicant's predecessor. The applicant and her predecessors took no action after 1992 that would cause the property to become almost completely covered with wetlands and buffer areas.

6. The proposed total lot coverage does not exceed 1,200 square feet for residential development. The proposed site plan depicts a residence with a footprint of less than 1,200 square feet. The driveways, walkways, and porches do not cause further encroachment into the wetland and wetland buffer than the building footprint itself. Therefore, the total footprint of the residential structure is less than the minimum allowed in the critical area.

7. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the property, as with other similar proposals cited by this Hearing Examiner, there is no evidence in the record that there is an unreasonable threat to public health, safety, or welfare if this proposal is approved.

8. Any alterations permitted to the critical area are mitigated in accordance with the mitigation requirements applicable to the critical area altered. The applicant's wetland delineation report and buffer mitigation plan, which is incorporated by reference, will impact 4,477 square feet of wetland buffer to build the house, driveway, and septic tank and drain field. Options for offsite mitigation are not available on Bainbridge Island at this time, so mitigation is proposed onsite by the following improvements to the wetland buffer:

(a) All invasive species will be removed, and native species will be planted within the forested buffer. Removal of these invasive species will allow the existing native plants to proliferate. The proposed plantings will also enhance the buffer by adding plants of varying heights. At the end of the monitoring period, the buffer will be denser which will provide increased function to block light and noise from residential activity. The buffer will have more species diversity which will attract wildlife and the native plants will slow and filter runoff from impervious surfaces.

(b) More direct wetland impacts are proposed for this project, therefore, mitigation of direct impacts to the wetland are not required. Much of the understory is dominated by ivy. Replacing the invasive species with native trees, shrubs, and ferns will improve overall habitat function in the buffer. The likelihood of the ability of the enhanced buffer to provide improved buffer function is high when compared to the condition of the existing buffer which is dominated by evasive ivy. Conditions of approval will include a monitoring plan with performance standards and follow-up maintenance.

(c) Maintenance of the mitigation area will occur for five (5) years and will involve removing invasive plant species, irrigating planted species and reinstalling failed plantings as necessary.

(d) The proposal protects the critical area of function and values consistent with the best available science and results in known critical area function and values. The applicant has submitted a wetland delineation report and mitigation plan by Ecological Land Services dated May 13, 2020. Pursuant to that report, this proposal protects the critical area's functions and values consistent with best available science and results in no loss of critical area functions and values.

9. This proposal addresses cumulative impacts of the action. The City has historically insisted upon strict compliance with the criteria for reasonable use exception which proposed reasonable use exception includes mitigation, which will enhance the wetland buffer and therefore create an environmental benefit. The city requires strict compliance with the criteria for reasonable use exceptions therefore impacts of several reasonable use exceptions should not have significant negative cumulative impact.

10. The proposal is consistent with other applicable regulations and standards. This proposal as presented is consistent with other applicable standards and regulations. A building permit is required before construction of the proposed house can begin and condition of approval will require compliance with applicable regulations and standards including best available science.

11. It is requested that the project description on the master land use application form that was submitted be revised to add a variance in the front yard setback to ten feet (10').

12. A survey in accordance with BIMC 16.20.140.B.3 shows the surveyed wetlands sized and mapped on a scale of the site plan. The wetland boundary has also been marked in the field and surveyed by a licensed surveyor. The mitigation plan is also depicted on the site plan that depicts the surveyed wetland boundaries.

13. A complete site plan including contours, setback, areas of disturbance, utilities, and significant trees is depicted.

14. Considerations for revisions to the wetland mitigation plan:

(a) The site plan correctly depicts a ten-foot (10') setback from the front property line. The variance requested is from twenty-five feet (25') to ten feet (10') and not to five feet (5'). A ten-foot (10') setback is required to allow sufficient area for parking and turn around for the occupants of the residence.

(b) Mitigation sequencing steps. The applicant proposes that the construction activity take place during the dry period of the year (August/September). Planting would be sequenced after the wet season and all earth work has been done to observe the hydro period before planting. The duration and extent of ponding and saturation would be monitored to identify problems with the water regime that can be corrected before planting. This would also allow the planting zones to be based on actual water levels rather than levels hypothesized in the plan. In the interim, a seed mix would be planted to prevent erosion and limit the spread of invasive species.

In addition, the reserve drain field can be left in its existing more nature state. The septic tanks can be moved closer to the development area if the variance to the front yard setback is granted. Health Department requirements for setbacks from the residence and the driveway easement will not allow for the septic tanks to be moved any closer, unless the variance to the front yard setback is granted.

The development area has been shifted as close to the southwest corner as possible, assuming the variance to the setbacks is granted. The project cannot be clustered in a smaller area.

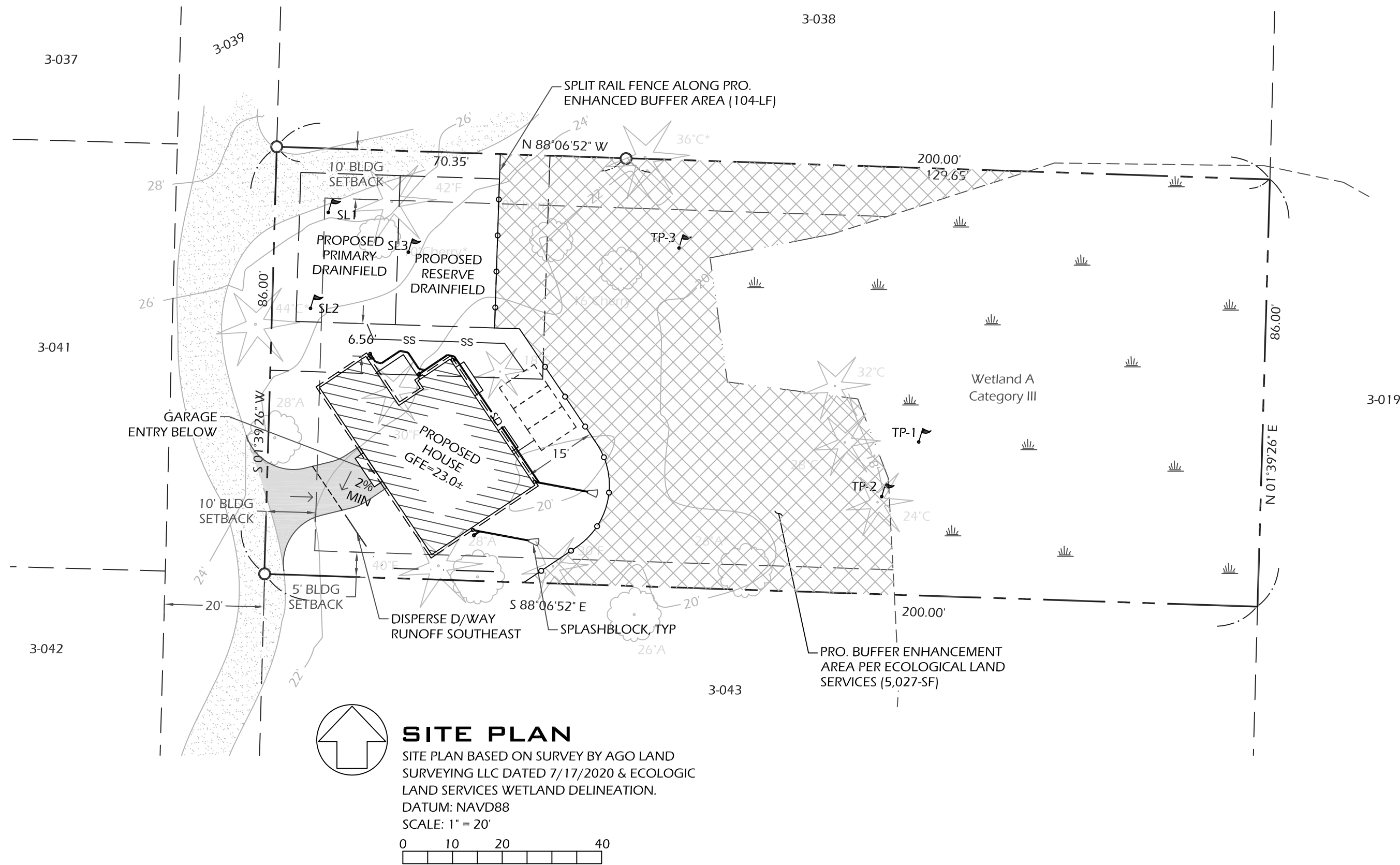
A low impact foundation design was considered by the geotechnical study submitted and on file by hydrogeologist Robert Cousins. A low impact development foundation was considered and found not feasible. The current design has been modified to allow for parking underneath the residence, which should allow for a reduction in impervious surface.

Dated this 17 day of July 2020.

APPLICANT:



William H. Broughton



PARCEL INFORMATION

TAX ID: 142502-3-040-2005
AREA: 0.39-ACRES, APPROX. 16,988-SF

ZONING: R - 2
BUILDING SETBACKS:
FRONT: 25-FT
SIDES: 5-FT MIN, 15 FT TOTAL
REAR: 15-FT
BUILDING COVERAGE: MAX. 20% OF SITE

CRITICAL AREAS: CATEGORY III WETLAND; CENSUS URBANIZED AREA
WETLAND AREA ON SITE: ±7,205-SF
WETLAND BUFFER AREA ON SITE: ±6,980-SF
PRO. HOUSE, DRIVEWAY & DRAINFIELD ENCROACHMENT INTO WETLAND BUFFER: 5,012-SF

PROPOSED HARD SURFACES:
BUILDING FOOTPRINT: 880-SF; 5.2%
ROOFTOPS: ±935-SF; 5.5%
DRIVEWAY: ±245-SF; 1.4%
TOTAL PROPOSED HARD SURFACES: 1,180-SF; 6.9%

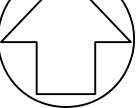
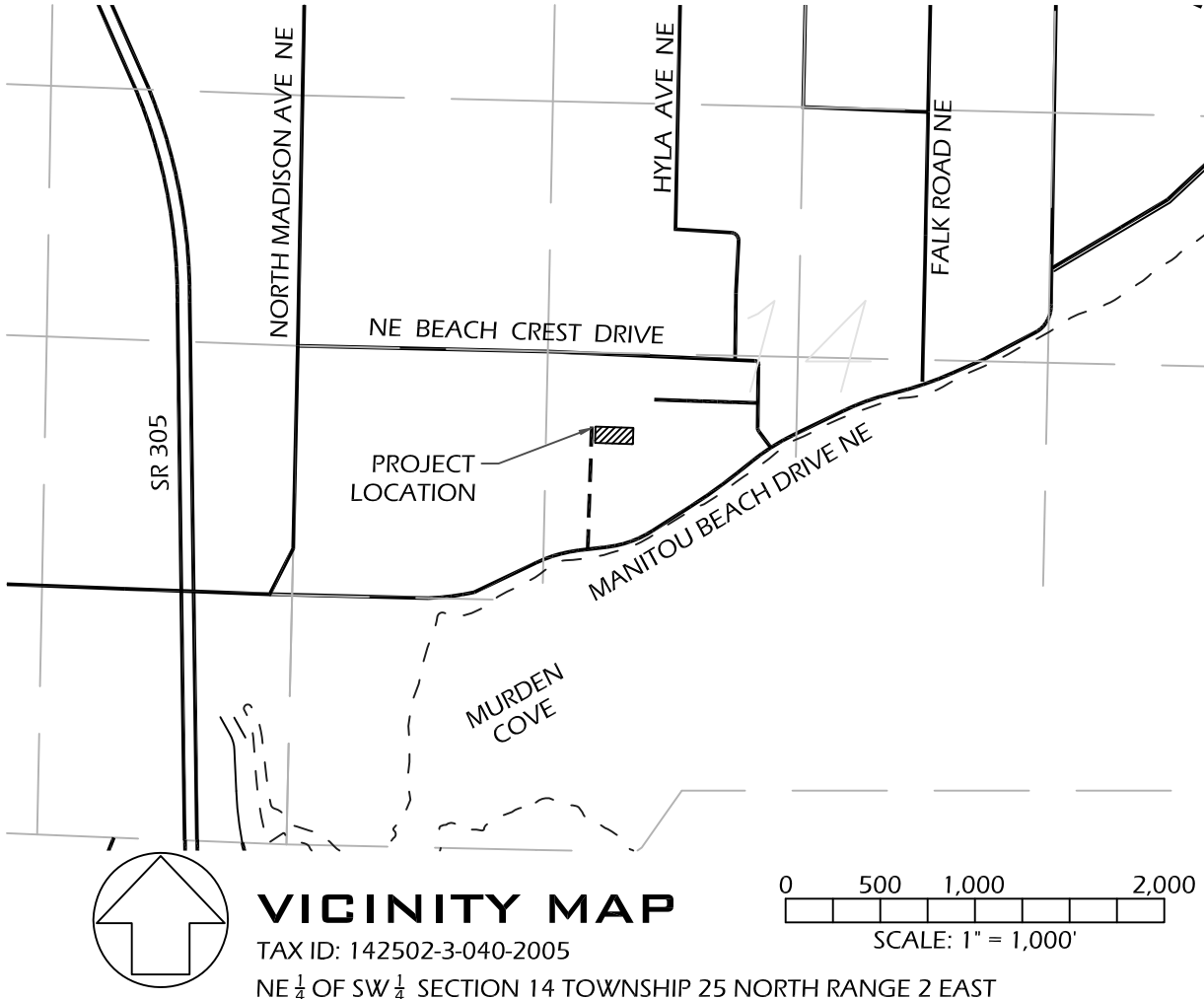
ON-SITE STORMWATER BMP'S:
ROOFTOPS: DOWNSPOUT DISPERSION; BMP T5.10B
DRIVEWAY: SHEET FLOW DISPERSION; BMP T5.12

NOTES:

- STORM DRAINAGE:
 - ROOFTOP STORMWATER WILL BE CONVEYED TO SPLASHBLOCKS FOR DOWNSPOUT DISPERSION PER BMP T5.10B.
 - STORMWATER FROM NEW DRIVEWAY WILL SHEET FLOW DISPERSE INTO EXISTING VEGETATION PER BMP T5.12.
- DETAILED EROSION & SEDIMENT CONTROL PLAN WILL BE DEVELOPED DURING FINAL DESIGN.
- WETLAND DELINEATION PER ECOLOGICAL LAND SERVICES & SURVEY BY AGO LAND SURVEYING LLC DATED 7.17.2020.
- SEPTIC INFORMATION SHOWN PER SEPTIC DESIGN BY THOMAS WEAVER DATED 11.14.2019.

LEGEND

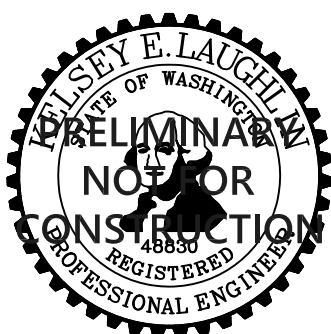
- EXISTING PROPERTY LINES
- BUILDING SETBACKS
- EXISTING ROAD
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING GRAVEL PAVEMENT
- DELINEATED WETLAND BOUNDARY
- APPROX. WETLAND BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDING
- PROPOSED ROOFTOP
- PROPOSED BUFFER ENHANCEMENT AREA
- PROPOSED DOWNSPOUT
- EXISTING TREES BASED ON AGO SURVEY



VICINITY MAP

TAX ID: 142502-3-040-2005
NE ¼ OF SW ¼ SECTION 14 TOWNSHIP 25 NORTH RANGE 2 EAST

CONCEPTUAL DRAINAGE PLAN
BROUGHTON - LOT 3-040 MANITOU BEACH DR
REASONABLE USE EXEMPTION SUBMITTAL



SEABOLD
ENGINEERING LLC

PO BOX 445 INDIANOLA, WA 98342
360.930.4668 ENGINEER@SEABOLDENG.COM

DATE: 9/30/2020
DESIGNED: K. LAUGHLIN
DRAWN: C. WITEK
CHECKED: K. LAUGHLIN
JOB NO.: BR1210

WILLIAM BROUGHTON
3212 NW BYRON ST
SILVERDALE, WA 98383
360.692.4888
bill@kitsaplawgroup.com

**City of Bainbridge Island**

Department of Planning & Community Development
280 Madison Avenue North, Bainbridge Island, WA 98110

Phone: 206-842-2552 Email: pcd@bainbridgewa.gov

Website: www.bainbridgewa.gov

Portal: <https://ci-bainbridgeisland-wa.smartgovcommunity.com/portal>

NOTICE OF COMPLETE APPLICATION

October 23, 2020

Re: Notice of Complete Application
File Name: **Manitou RUE/VAR**
Project Number: **PLN51687 RUE/VAR**
Submitted: May 21, 2020

The application for the above referenced project is complete in accordance with the submittal requirements located in the Bainbridge Island Administrative Manual. A determination of a complete application does not preclude the department from requesting additional information or studies.

Pursuant to *Bainbridge Island Municipal Code* Section 2.16.020(K), the applicant must post a legal notice of application on the property within five days of the publication of notice. The city will provide the notice boards and posting instructions, you must provide the stake/post. The City will contact you when the notice boards are prepared.

Correspondence concerning this application should make reference to both the file number and file name shown above.

Thank you,

Annie Hillier, (206) 780-3773, ahillier@bainbridgewa.gov
Project Manager



PLANNING & COMMUNITY DEVELOPMENT
280 MADISON AVENUE NORTH | BAINBRIDGE ISLAND, WA 98110
206.780.3750 | PCD@BAINBRIDGEWA.GOV | WWW.BAINBRIDGEWA.GOV

NOTICE OF APPLICATION/HEARING

The City of Bainbridge Island has received a Master Land Use Permit Application for the following project. The public has the right to review contents of the official file, provide written comments, participate in any public meetings or hearings, and request a copy of the decision. This notice is posted at the project site, in City Hall kiosks, the City of Bainbridge Island website, mailed to property owners within 500 feet of any boundary of the subject property and including any property within 500 feet of any contiguous property in the applicant's ownership and published in the Bainbridge Island Review.

PROJECT DESCRIPTION:	Construct a single-family residence with a footprint of 1080 sq ft on a lot containing critical areas.
PROJECT NAME:	Manitou RUE & VAR
PROJECT NUMBER:	PLN51687 RUE & PLN51687 VAR
PERMIT TYPE:	Reasonable Use Exception (RUE) & Variance (VAR)
TAX PARCEL:	14250230402005
PROJECT SITE:	Manitou Beach Dr NE
DATE SUBMITTED:	May 21, 2020
DATE COMPLETE:	October 23, 2020
DATE NOTICED:	November 13, 2020
COMMENT PERIOD:	November 13, 2020 – December 4, 2020



Comments must be submitted no later than 4:00pm on Friday, December 4, 2020.

Public comments may be mailed, emailed or personally delivered to the City using the staff name and contact information provided on this notice. The public comment period for this application is 21 days (*extended due to holiday*) and the City will not act on the application until the comment period has ended. Any person may comment on the proposed application, request notice of and participate in the public hearing and request a copy of the decision. Only those persons who submit written comments prior to the decision or participate in the public hearing will be parties of record and only parties of record will have the right to appeal.

STAFF CONTACT: Annie Hillier, Planner
ahillier@bainbridgewa.gov or (206) 780-3765

DATE OF HEARING: January 28, 2021 at 10:00 am (tentative)
This is a **tentative date only**. Please go to the City website at bainbridgewa.gov and search 'Project Hearing Schedule' to view any updates on the date/time of the hearing. Hearings are held at Bainbridge Island City Hall, Council Chambers, 280 Madison Avenue North, Bainbridge Island.

PROJECT DOCUMENTS: <https://ci-bainbridgeisland-wa.smartgovcommunity.com/PermittingPublic/PermitDetailPublic/Index/e05e3a2e-2909-458a-97ac-abc2010a2e25?conv=1>

To review documents and environmental studies submitted with this proposal, please follow the link above or go to the City website at bainbridgewa.gov, select 'Online Permit Center'

and search using the project information noted above. Files are also available at the Planning & Community Development Department at City Hall.

ENVIRONMENTAL REVIEW:	This proposal is exempt from State Environmental Policy Act (SEPA) review pursuant to WAC 197-11-800.
REGULATIONS/POLICIES:	Applicable development regulations and policies to be used for project mitigation and consistency include, but may not be limited to, the City of Bainbridge Island 2016 Comprehensive Plan, the Bainbridge Island Municipal Code (BIMC) Chapter 2.16 (Land Use Review Procedures), Title 15 (Buildings and Construction), Title 16 (Environment) and Title 18 (Zoning).
OTHER PERMITS:	Other permits not included in this application but known at this time include building permits.
DECISION PROCESS:	This type of land use application is classified as a 'Quasi-Judicial Decision by a Hearing Examiner' pursuant to BIMC 2.16.010-1 and requires a public hearing pursuant to BIMC 2.16.020.C. Following the close of the public hearing, the Hearing Examiner will issue a written decision and a notice of the decision will be sent to those parties who comment on this notice or participate in the public hearing. Appeal provisions will be included with the notice of decision.

PLN51687 RUE VAR Manitou

November 13, 2020

Owner	Mailing Address	Mailing City	State	Mailing Zip
ADAN LUIS L & CHINGCUANGCO MARINELA B	801 PINE ST #24D	SEATTLE	WA	98101
BAINBRIDGE ISLAND METRO PARK & RECREATION DISTRICT	7666 HIGH SCHOOL RD NE	BAINBRIDGE ISLAND	WA	98110-2621
BONIFIELD CONNIE	9995 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110
BONIFIELD THOMAS R JR	10037 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110
BORREVIK ANDREW M & KOROL SUSAN T	9865 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
BURGIN HEIDI LANGENDORFF	9800 NE MURDEN COVE	BAINBRIDGE ISLAND	WA	98110
CHILDERS FRANK W JR & TERRY MARY A	10035 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
COX PAULA MARTIN	9981 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110-1367
DERUBERTIS CORBIN & KATHLEEN	10023 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110-3364
DOWLING EDWARD J & SHANNON V	10119 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
ERICKSON KARL & AMY	10192 BEACHCREST DR NE	BAINBRIDGE ISLAND	WA	98110
ERLER TODD H & OSTDIEK ALICE M	9987 PETIT PL NE	BAINBRIDGE ISLAND	WA	98110-4376
FABER STEPHEN J TRUSTEE	10269 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110-1355
FEITEN FREDERICK C III & APPLEWHITE LEAH JANE	10221 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
GILL CHLOE E	9805 NE MURDEN COVE DR	BAINBRIDGE ISLAND	WA	98110-3380
HOUSER DANIEL S &	10010 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
HUTCHERSON PHILLIP D & MOCKETT EMILY J	9804 NE MURDEN COVE DR	BAINBRIDGE ISLAND	WA	98110-3380
JAFFE KATHARINE RUTLEDGE & SMITH AUSTIN F	10001 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
JAMES JACK BENJAMIN A & GRIER M	10241 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
JOHNSTON DENNIS O & CLARK LEAH	10005 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
KITAMOTO SHARON K	10159 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
KORSLUND LEONARD A	10400 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110-4335
L ADVENTURE LLC SERIES A	1106 2ND ST STE 851	ENCINITAS	CA	92024
LOONEY LAND LLC	PO BOX 5867	RENO	NV	89513
LUCAS PETER B & MELINDA B	10191 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
MADISON J CHRISTIAN & MARY M	9802 NE MURDEN COVE DR	BAINBRIDGE IS	WA	98110-3380
MANITOU BEACH HOLDINGS LLC & CAROLYN R MILLER	1040 W 5TH ST	PORT ANGELES	WA	98363
MCMAHAN MICHAEL L & NEAL W TRUSTEES	10075 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110-3364
MERKEL JOEL & MARIAN	10228 NE BEACH CREST	BAINBRIDGE ISLAND	WA	98110-1355
MILLER CAROLYN R	10101 MANITOU BEACH DR	BAINBRIDGE ISLAND	WA	98110
MOHR DONALD E	3518 CLAY PRODUCTS	ANCHORAGE	AK	99503
ODORAN LYN BRIGHID	PO BOX 4682	ROLLINGBAY	WA	98061
OSTINOWSKY JONATHAN JAMES	9991 PETTIT PL NE	BAINBRIDGE ISLAND	WA	98110

November 13, 2020

Owner	Mailing Address	Mailing City	State	Mailing Zip
PADGETT LINDA	5731 75TH PL NE	MARYSVILLE	WA	98270
PALMER C W & ETHEL M	7737 N VIA DEL SENDERO	SCOTTSDALE	AZ	85258-2635
REAM MILLER III	9911 BEACH CREST DR NE	BAINBRIDGE ISLAND	WA	98110
REPLINGER JAMES ALAN	10456 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110-4335
SANDRI PIERO & ANGELA	10334 BEACH CREST DR NE	BAINBRIDGE ISLAND	WA	98110-1390
SELF MCKINLEY & SHELLY	9884 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
SHELLY TIMOTHY & BEILFUSS LINDSAY	10061 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
SHEPHERD H BEN	10510 NORTHUP WAY STE 300	KIRKLAND	WA	98033-7928
SNEDEKER D M	4198 BLAKELY AVE NE	BAINBRIDGE ISLAND	WA	98110
SOHLBERG LINDA	9999 MANITOU BEACH DR	BAINBRIDGE ISLAND	WA	98110-1374
SOISSON JOEL B & CLAUDIA L TRUSTEES	10055 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110-3364
STUART JEFFREY A & DIANE M	10049 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110
SWANSON TIMOTHY M & JEAN M	9965 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
VON RUDEN MATTHEW S & YVONNE M	9980 NE BEACH CREST DR	BAINBRIDGE ISLAND	WA	98110-1367
WALKER RANDY & ANNETTE	9811 MANITOU BEACH DR NE	BAINBRIDGE ISLAND	WA	98110
WEIS JULIANA & MICHAEL PETER	10334 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110-1390
WOODMAN JOHN H & BARBARA K	10128 NE BEACHCREST DR	BAINBRIDGE ISLAND	WA	98110-1368

Accounts Payable Approval Stamp

Vendor Name: BAINBRIDGE REVIEW

Vendor Number: 55
(If Available)

Amount approved for payment: \$78.00

Reviewed by (e-sign): _____

Initial if unable to
e-sign:

MS

Approved by (e-sign): _____

Initial if uable to
e-sign:

MS

Date Approved (mm/dd/yyyy): 11/24/2020

ORG: 63470586

OBJ: 544000

PRJ: _____

Contract #: _____

PO#: _____

Comments
or
Questions:

Received by: _____

Rev. 04/01/20 CEM
For Internal Use Only



Legal Invoice

Date: 11/13/2020

Sound Publishing, Inc.
Unit Attn: A/R
PO Box 930
Everett WA 98206-0930

Bainbridge Island Review

Bill To:

City of Bainbridge Island-LEGALS
280 Madison Ave N
Bainbridge Island WA 98110

Customer Account #: 80604980

Legal Description: BIR913195

Legal Description: City Notices

Desc: PLN51687

Legal #: BIR913195

Ad Cost: \$ 78.00

Ordered By: CARLA LUNDGREN

Published: Bainbridge Island Review

Issues Ordered: 1

Start Date: 11/13/2020 **End Date:** 11/13/2020

Due: \$ 78.00

Please return this with payment. Questions? Call 1-800-485-4920

City of Bainbridge Island-LEGALS
280 Madison Ave N
Bainbridge Island WA 98110

Account #: 80604980
Invoice #: BIR913195
Due: \$ 78.00

Bainbridge Island Review

Affidavit of Publication

State of Washington }

County of Kitsap } ss

Dicy Sheppard being first duly sworn, upon oath deposes and says: that he/she is the legal representative of the Bainbridge Island Review a weekly newspaper. The said newspaper is a legal newspaper by order of the superior court in the county in which it is published and is now and has been for more than six months prior to the date of the first publication of the Notice hereinafter referred to, published in the English language continually as a weekly newspaper in Kitsap County, Washington and is and always has been printed in whole or part in the Bainbridge Island Review and is of general circulation in said County, and is a legal newspaper, in accordance with the Chapter 99 of the Laws of 1921, as amended by Chapter 213, Laws of 1941, and approved as a legal newspaper by order of the Superior Court of Kitsap County, State of Washington, by order dated June 16, 1941, and that the annexed is a true copy of BIR913195 PLN51687 as it was published in the regular and entire issue of said paper and not as a supplement form thereof for a period of 1 issue(s), such publication commencing on 11/13/2020 and ending on 11/13/2020 and that said newspaper was regularly distributed to its subscribers during all of said period.

The amount of the fee for such publication is \$78.00.

Dicy Sheppard
Subscribed and sworn before me on this

16th day of December,
2020

Linda Phillips
Notary Public in and for the State of

Washington.

City of Bainbridge Island-LEGALS | 80604980
CARLA LUNDGREN



Notice is hereby given that the City of Bainbridge Island Planning & Community Development has received a Notice of Application/Hearing for the following development proposal(s).

Project Name: Manitou
Project Number: PLN51687 RUE & PLN51687 VAR

Site Location: Manitou Beach Dr NE

Project Description: Construct a single-family residence with a footprint of 1080 sq ft on a lot containing critical areas

Tentative Public Hearing Date/Time: January 28, 2021 @ 10:00am

Location of Hearing: 280 Madison Ave N

COBI Staff Planner: Annie Hillier (206) 780-3765

Any person may comment on the proposed application and/or request a copy of any decision. Only persons of record may appeal the decision. Contact the COBI Staff Planner listed above with questions, concerns and/or a request to receive further notice in reference to this project.

Comments must be received no later than 4:00pm on Friday, December 4, 2020. Comments can be submitted to pcc@bainbridgewa.gov or Planning & Community Development - 280 Madison Ave N, Bainbridge Island, WA 98110.

For more information on this project or to view the published legal notice, visit <https://www.bainbridgewa.gov/433/Pro>

posed-Land-Use-Actions
Date of first publication:
November 13, 2020
Date of last publication:
November 13, 2020
(BIR913xxx)



CERTIFICATE OF POSTING

I, WILLIAM BROUGHTON, certify that the following sign(s)

- ☒ Proposed Land Use Action
- ☐ Tree and Vegetation Removal Permit
- ☐ Public Hearing
- ☐ Public Participation Meeting
- ☐ Other _____

were posted on 11-20-2020 for the following application at the address listed below:
(date)

Project Name - MAITOU RUE

Permit Number - RN51687 RUE/VAR

Physical Property Address - LOT 40 MANITOU BEACH DR

Tax Assessor Number(s) - 142502-3-040-2005

I declare under the penalty of the perjury laws of the State of Washington that the foregoing is correct.

WILLIAM BROUGHTON
Signature

11-20-2020
Date

Instructions for posting signs:

- Sign must be posted within 5 days of Notice of Application or permit issuance.
- Sign must be posted where it is continually and clearly visible to passersby and neighbors.
- Sign must be posted overlooking the water on any waterfront property.
- Sign must be on the subject property, NOT in the right-of-way.
- Sign must remain in place until project completion.
- Upon project completion and/or final decision, the applicant is responsible for removing signs.

Email completed form within 48 hours of posting the signs to:

pcd@bainbridgewa.gov

Please note: Paper copies WILL NOT be accepted. Submit via email only.

From: [Martha Korslund](#)
To: [PCD](#)
Subject: NOA
Date: Tuesday, November 17, 2020 11:10:09 AM

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Pursuant to PLN51687 RUE and PLN51687 VAR

I live close by this area and it seems we have critical areas prone to flooding and active wetlands and yet we accommodate crowding more homes into these areas. If we have specific rules in place how is it that we allow variances and allow more building and septic systems onto these properties.

I wish to object to this proposal and other like it that require variances and hearings to allow shoehorning another home on our wetlands.

Please remember the city had a hard time installing a park or parking lot in this same area.

Len Korslund
10400 NE Beachcrest

Sent from my iPad

We own the property just north of proposed land development. Our house sits at the end of the access road. We own the access road up to our house. The roadway to our house veers off to the right and makes a circle around a large drain-field. We bought this property 29 years ago with the circle in place. A recent survey shows that the property to be developed owns a wedge of land in the road bed on the south side of our circle. As far as we can interpret, the proposed site plan shows the drain-field as being dug into the road bed. This would effectively block our passage around our circle (though no soil test logs were taken from the road bed).

We have spoken to a land use attorney and an island architectural firm – both find the proposed plan curious and concerning.

Questions, concerns and thoughts about building in such a limited space with **little room for maneuvering**:

Staging and management

Workers park where?

Outhouse where?

Heavy equipment turn around - how?

Concerned about damage to our trees and plant life on our road by heavy equipment -

What healthy trees are targeted to be cut down within the property?

We will require continuous open passage in and out of the driveways for 4 families while in construction -

Concerned about damage to our main access road by installing water line and electricity – and unforeseen water/other issues in the digging process. We will require a clear timetable on this part of the project -

Keeping a passage open on our main access road while its being dug – how?

Will require complete repair of our main access road once work done to same or better condition with signed document before work commences -

The 1080 sq ft footprint just seems too big for the land available to actually build on – too close to the road, little room for owner parking let alone visitors and delivery and little space around the structure. 850 sq ft footprint max. This project borders on sensitive land containing critical areas and will bring forth an impact that effectively changes the balance that has been in place for many decades.

We are a small tight-knit community and think it is important and imperative for owners and management to keep open dialogue. No one here will take kindly to the constant cavalry of heavy equipment without some form of notice. If the owners are building a house so they can live here, now is the time for them to get to know their neighbors.

Dennis Johnston and Leah Clark 10005 Manitou Beach

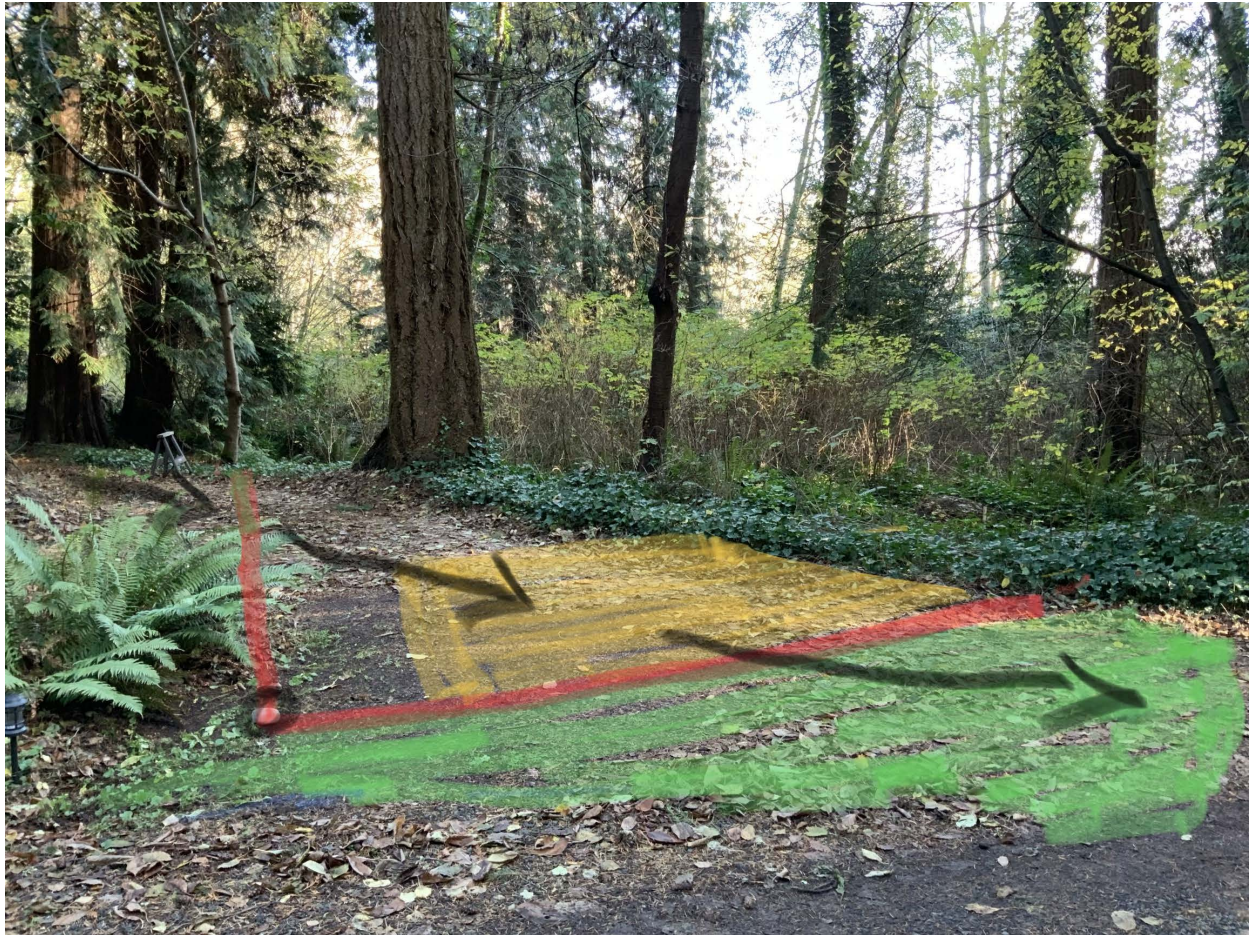
From: Leah Clark
To: Leah Clark
Subject: Field From Dennis Johnston Leah Clark Manitou Beach
Date: Wednesday, December 2, 2020 11:27:24 AM
Attachments: [Manitou.pdf](#) [Leah Clark.pdf](#)

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Sent from my iPad

Begin forwarded message:

From: Leah Clark <pushi2@comcast.net>
Date: December 2, 2020 at 11:28:15 AM PST
To: Leah Clark <pushi2@comcast.net>
Subject: From Dennis Johnston Leah Clark Manitou Beach





Sent from my iPad

Begin forwarded message:

From: Leah Clark <push20@comcast.net>
Date: December 2, 2020 at 11:18:40 AM PST
To: Push20@comcast.net
Subject: comments

From: [Douglass MacKenzie](#)
To: [PCD](#)
Cc: [Linda sohlberg](#); [Kirk Smith](#); [Leah Clark](#)
Subject: PLN51687 RUE VAR
Date: Wednesday, December 2, 2020 6:18:55 PM

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Dear Sirs,

My son Ben is the owner and my wife and I are tenants on the lots immediately to the south of this proposed exception to wetland protection rules. We have several RUE properties in this neighborhood. Each of them had a mitigation plan and I would suggest that all have failed, most within the five (5) year period of city supervision.

I protest doing this one more time. It didn't work before and it won't this time. The RUE Request admits that mitigation will not work, so why allow the exception? If you intend to bulldoze the island, please at least charge enough to cover the actual cost of the destruction.

Sincerely,

Douglass Mackenzie
dougmackenzie1@gmail.com
9995 Manitou Beach Drive NE
Bainbridge Is, WA 98110
(206) 842-2961 Home
(206) 883-4639 Cell

From: [Linda Sohlberg](#)
To: [PCD](#)
Subject: Comment re RUE & VAR app #PLN51687
Date: Thursday, December 3, 2020 5:48:40 PM
Attachments: [Letter Manitou RUE .docx](#)
[Tree Protection Protocols during Construction.doc](#)

4

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Attn: Annie Hillier:

Attached please find 3 items:

- Comments (cover letter)
- Site Plan (revised by "commenter")
- Tree protection protocols

I would appreciate it if you would verify receipt of this email.

-Thanks- Linda

--

Linda Sohlberg, Architect
Bainbridge Island WA

"Connecting Lives, Sharing Cultures"

AFS Intercultural Programs Volunteer
US Dept of State Sponsored Programs Coordinator

2 December, 2020

Linda Sohlberg
9999 Manitou Beach Drive
Bainbridge Island WA 98110

City of Bainbridge Island,

RE: RUE application PLN51687
VAR application PLN 51687

To whom it may concern:

Although I am not opposed in principal to the reasonable use of the subject property, there are several considerations & concerns I would like to voice in the hopes that COBI will ask that the application be revised to address these concerns.

1. **Front Yard Setback:** Project proposes a considerably reduced setback of 10 ft (from the Code requirement of 25 ft). Consider the following:
 - a. The access road impinges on the property slightly, thus reducing the effective setback to appx 8 or 9 ft
 - b. The immediate neighborhood homes all have setbacks of at least 25 ft, and all are also restricted by wetland setbacks.
 - c. With zero parking space, where would the owner plan to have visitors park? This is not a public road- it is a private, one-lane access drive, and is not available for parking for any length of time as it would block access to other residents.
 - d. Summary: we oppose granting the variance for the reduced Front Yard Setback.
2. **Significant trees:** RUE application does not locate any trees. There are 7 Landmark trees, most of which are close to or on the property line (per my estimate- see attached site plan).
 - a. 66" dia Cedar located close to middle of west prop line: This tree is within the privately owned access road ROW, and is required to be protected during construction & regarding site design (tree protection protocols attached).
 - b. There are 4 Douglas Firs, ranging in size from 37" to 51" diameter. Although it is reasonable to expect that the one in the center of the property needs to be removed for construction of a residence, the 2 on the south property line are either ON the property line (and therefore certainly must be protected), or very close.
 - c. Alders: the large 36" dia alder on west property line should probably be removed, as it is aging and any construction would put it at risk. It is a danger tree to the home due west of it. Its removal would also allow more flexibility re site access and on-site parking.
 - d. Note: Tree removal would reduce the capacity of the soil to absorb rainwater, thus increasing local flooding.

3. **On-site parking/driveway:** Although not indicated on the submitted site plan, I have shown a small parking pad. This pad should be required to be a permeable surface, constructed according to accepted industry & code standards.
4. **Prescriptive Easement** issue: A long existing private driveway cuts across the northwest corner of the property. It is my understating that this would somewhat reduce the usable property as this Easement must be retained (see attached site plan).
5. **Site water retention pond or filtration:** No plan is indicated. If a retention pond or filtration area is required to protect the wetland from contamination, it would add another setback requirement for the drainfield and reserve.

In order to accommodate the house plan as shown, provide the required septic system, and protect the trees (protective radii shown on my attached site plan), it would seem that the setback from the wetlands needs to be revised, perhaps even further reducing it slightly. This I would support in order to protect the trees and have the required 25 ft Front Yard Setback. Frankly, there is little to no difference in the soils etc until one gets to Test Plot 1, which does indeed have standing water much of the time in winter. TP 2 & 3 appear to be relatively dry.

I feel that the wetland would be adequately protected even if the setback were slightly reduced. I would add that *thoughtful* "remediation" planting would be more effective than simply cramming in some prescriptive number of native species, as time and time again home owners eventually remove said plantings because they are unattractive. A pleasing Landscape Plan might encourage stewardship of the area.

Sincerely,
Linda Sohlberg



Ribeiro Consultants

10744 NE Manitou Beach Drive, Bainbridge Island, WA 98110
 Phone & Fax: 206-842-1157. e-mail: fungispore@comcast.net, website: www.ribeirotreeconsultants.com
 Consultants to the Arboricultural & Horticultural Industries – Specializing in Plant Disease Diagnosis

Protocols for Tree Protection during construction

The following is a brief explanation for the protocols that follow for the protection of mature trees during construction.

Tree roots are not like carrots. Roots spread out over a large area and are concentrated at the soil surface. A tree actually looks like a wine glass setting on a dinner plate (Figure 1). A wine glass represents (1) leaves and branches, (2) tree stem, and (3) the structural root plate. A large dinner plate (4) represents the transport and feeder roots that spread out farther than the branches.

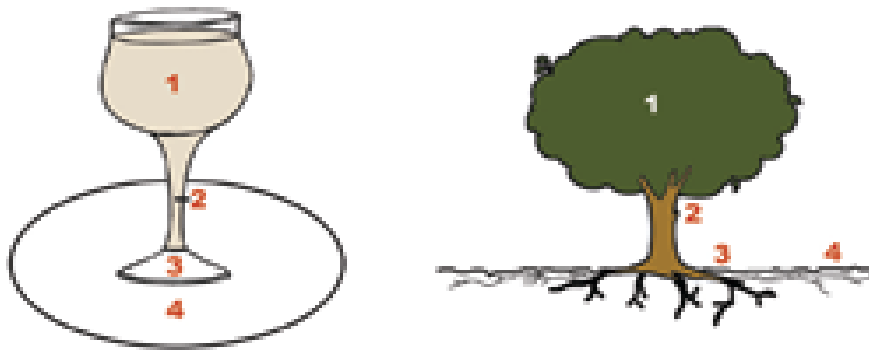


Figure 1. A tree looks like a wine glass on a dinner plate.
 (from Mississippi State Extension Tree Protection Guidelines)

Roots hairs are so small and prolific they essentially are one with the soil. So any little activity that compacts or moves soil can kill roots. Fortunately not all roots are created equal. Tree roots closest to the stem are more essential than others for survival

The most important area to ensure the survival of the tree is the protected root zone (PRZ). This is defined as the area below the dripline. This is the area directly below the branches of the tree. However, it must be noted that many roots extend well beyond the dripline of the tree. In terms of construction, it is not often feasible to protect such a large area. Therefore, arborists now define the most important area to be left undisturbed as the **Critical Root Radius (CRR)**. See diagram below.

The critical root radius is calculated as follows:

1. Measure the diameter of the tree at breast height in inches.
2. Multiply this number by 1.5 or 1. (1.5 for trees with less vigor)
3. Express the number in feet.

e.g.: diameter of tree is 30 inches.

$30 \times 1.5 = 45$ ft. This is the Critical Root Radius = (CRR) that must be protected.

For trees that are vigorous or more tolerant to root disturbances, multiply by 1
 $30 \times 1 = 30$ ft. for CRR,

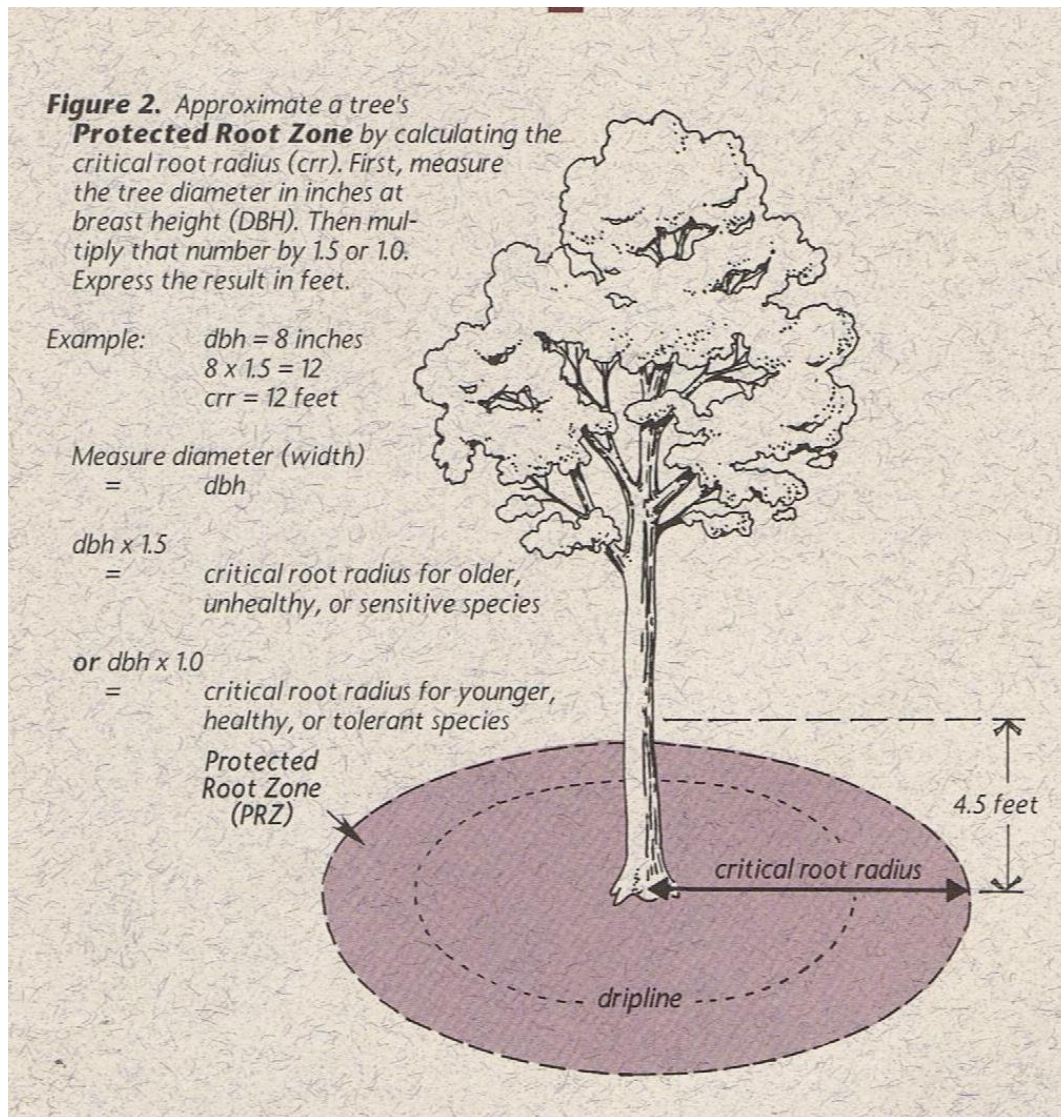


Figure 2: Critical Root Radius area to be protected during construction

Protocols based on University & ANSI 300 Standards:

1. Assess the health of each tree to be protected. This will determine which trees can be saved during construction activities.
2. Boost vigor of trees to be protected with humic acids+ mycorrhizae + sea kelp.
3. Measure diameters of trees to be protected.
4. Calculate the Critical Root Radius (see above diagram)
5. Place fence at CRR.

Fencing: One of the best tree protectors is a fence placed around the critical root area to prevent root injury during construction.

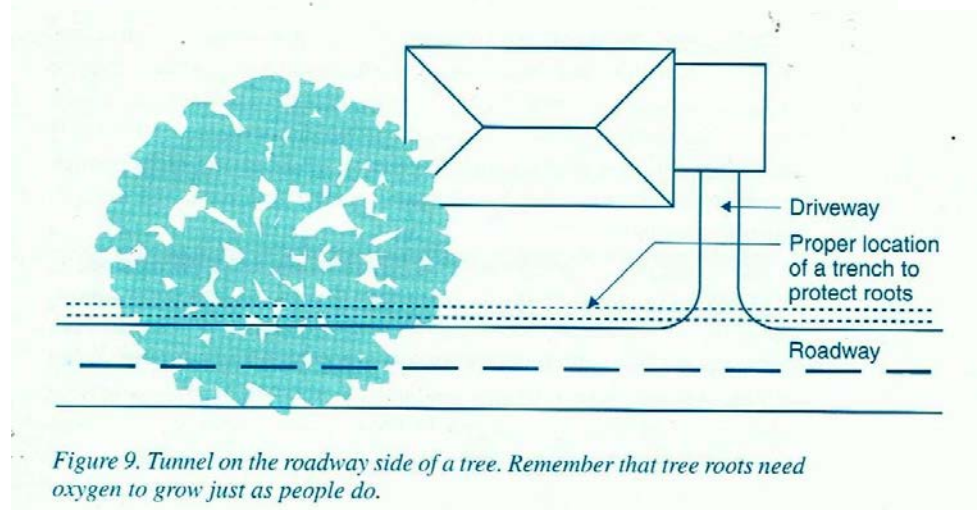
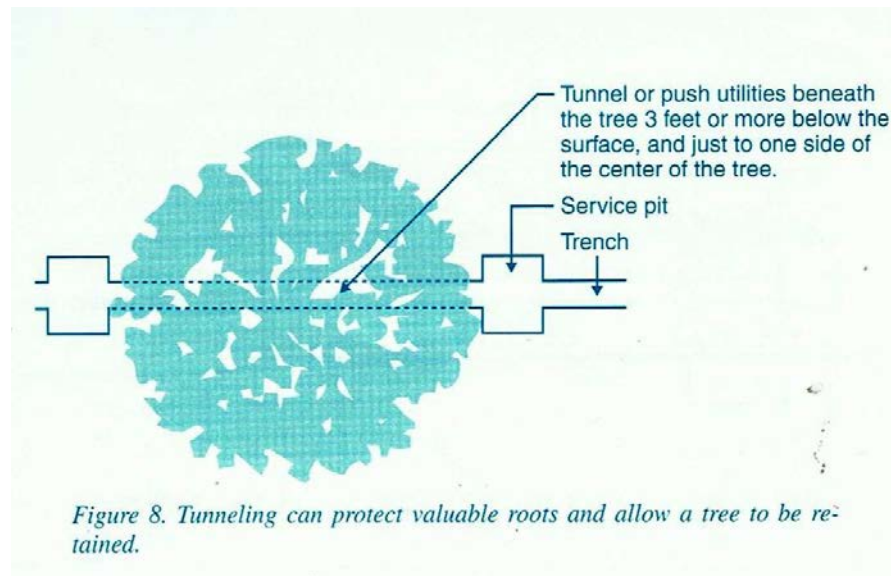
1. Fencing to be erected prior to construction
2. Fencing to be kept intact throughout construction
3. This temporary fence should be at least four feet high, clearly visible and supported by steel T-bar or similar stakes.
4. Warning signs to keep out of protected area must be placed on fences.
5. Protecting groups of trees instead of individuals is recommended when possible.
6. To protect a group of trees, determine the critical root radius for each individual tree. Then. Place a protective fence outside the critical root area of all trees.
7. All fencing and CRRs must be **approved by Arborist** prior to work being initiated.

Storage of Materials:

Do NOT store any building materials and/or chemicals and fuels near the CCR of the trees. Any chemicals spilled in protective tree zone require to be reported immediately so that remedial action can be taken to protect tree roots.

Trenching:

1. Whenever possible, use an air spade to dig trenches.
2. If not feasible to use an air spade, hand-dig trenches.
3. Any roots encountered need to be assessed by Arborist.
4. Retain as many roots as possible.
5. Roots to be cut should be done with a diamond blade to ensure clean cuts with minimum root tearing. A sharp Arborist saw may also be used.
6. No trench digging equipment must be allowed to encroach on CCR
7. Do not leave trenches open longer than necessary. Wet down any exposed roots.
8. At no time must excavated soil or soil brought to the site - be placed against the tree trunk.
9. Backfill the trench with an inert granular material and topsoil mix. Compact the backfill with care around the retained roots.
10. **Arborist must be present during trenching.**



From: T.D. Sydnor & R.B. Heiligmann: Trees & Home Construction. Ohio State Univ.

Grade Changes:

It is very important to ensure that there are no grade changes around trees to be saved.

1. Avoid any grade change that will drastically alter the water table or how water drains around trees.
2. Add drains where the critical root area now collects water and provide extra watering to areas that are now excessively dry. Avoid any soil compaction by machinery.
3. Use ply boards or other means to avoid compaction in areas with machinery.

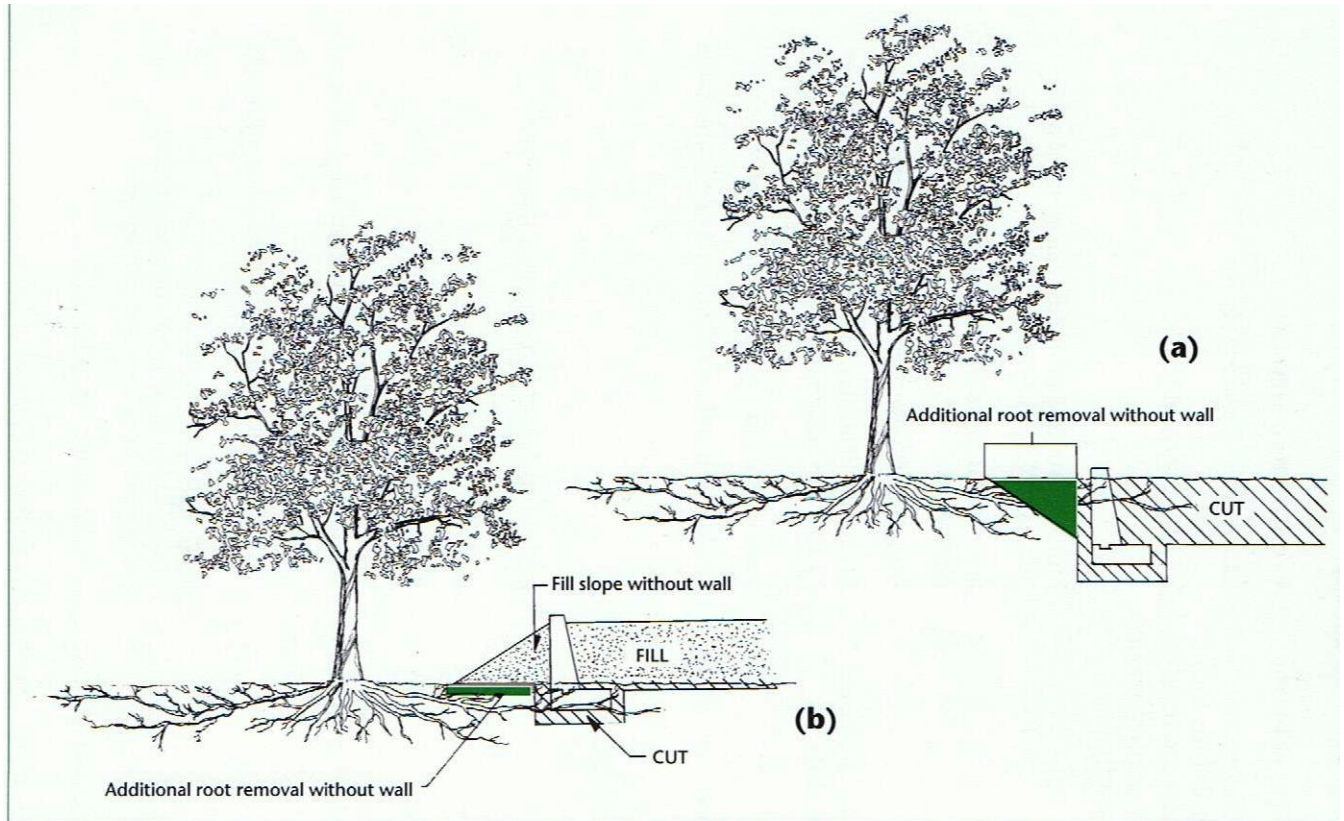


FIGURE 8.1 How grade transitions are handled can significantly affect root disturbance. Retaining walls can be used to reduce the horizontal distance for grade changes for a cut (a) or a fill (b).

From: Matheny, N and J.R. Clark. 1998. Trees and Development. A technical guide to preservation of trees during land Development.

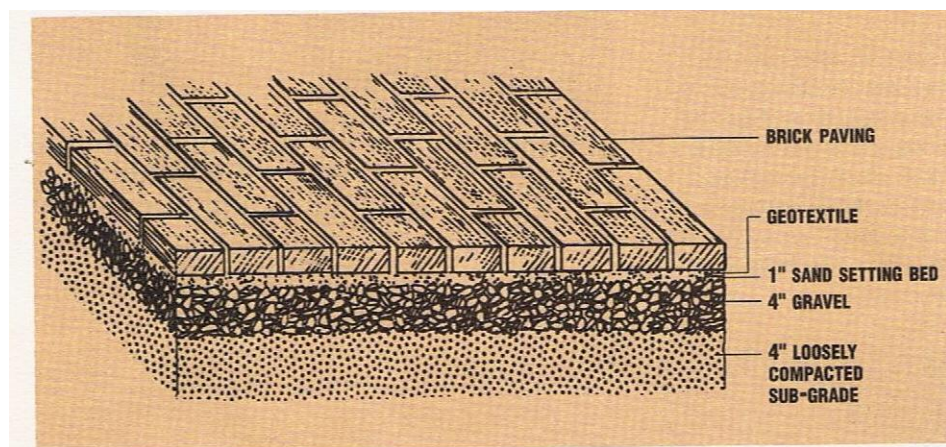
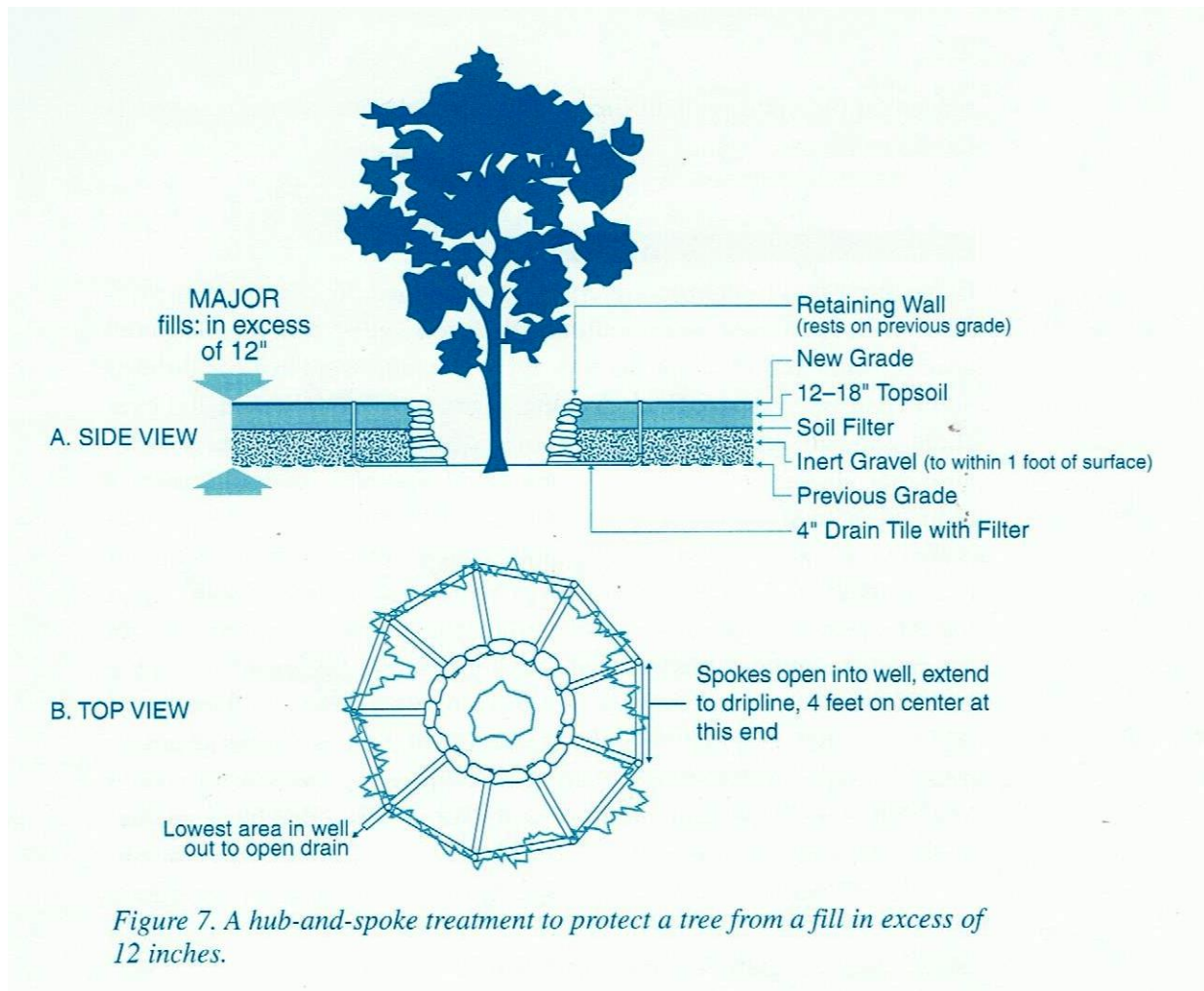


Figure 29. Brick patios and sidewalks can be designed to reduce soil compaction and root pruning.

From: From: Elmendorf, W., H. Gerhold, and L. Kuhns. A guide to Preserving Trees in Development Projects. Penn State Univ.



From: T.D. Sydnor & R.B. Heiligmann: Trees & Home Construction. Ohio State Univ.

If Tree is too close to Building

If tree is closer than the CRR for the proposed building the following options will need to be considered in **conjunction with an Arborist**:

1. Remove the tree or move the structure.
2. Cantilever portions of the structure over tree roots.
3. Instead of concrete replace with interlocking pavers or flexible or porous paving construction techniques.
4. Elevate porches on posts and brick or create flagstone walkways on sand.
5. Other alternatives?

Summary:

Arborist needed before construction begins to look over plans.

Arborist needed during trenching work.

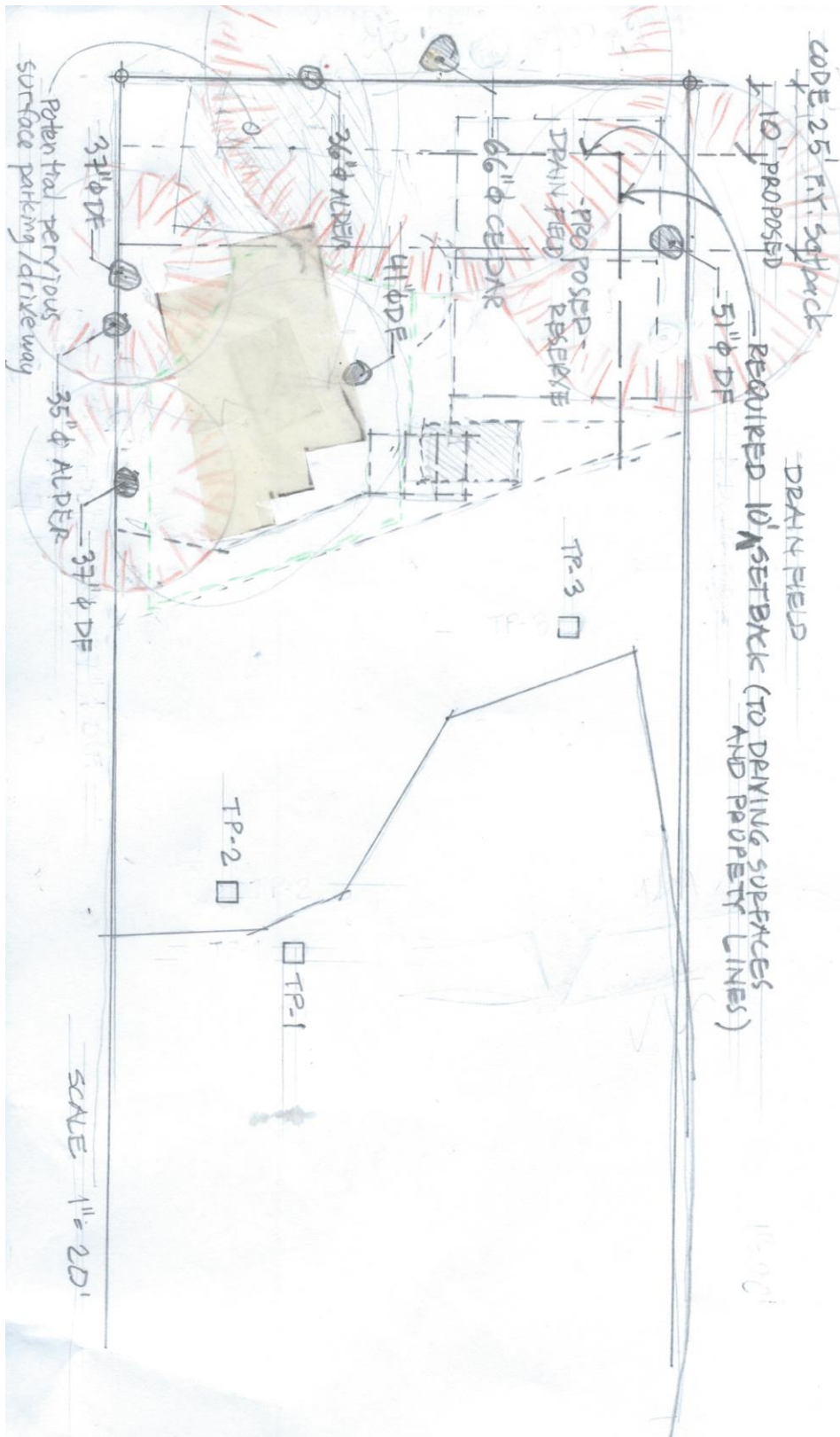
Arborist needed at end of construction to assess future needs of the trees.

References:

- Coder, K.D. 2000. Soil compaction & trees: causes, symptoms & effects. FOR00-003 University of Georgia School of Forest Resources, Athens, GA. www.urbanforestrysouth.org \ 37 p.
- Coder, K.D. 1996. Construction damage assessments. Trees and Sites. FOR96-039a University of Georgia School of Forest Resources, Athens, GA. www.urbanforestrysouth.org 23 p.
- Elmendorf, W., H. Gerhold, and L. Kuhns. 2005. A guide to Preserving Trees in Development Projects. Pub UH122. Penn State University of School Forest Resources, University Park, PA. pubs.cas.psu.edu 27 p.
- Johnson, G. 2001. How to protect trees from construction damage. Grounds Maintenance 36(11): 28-31.

- Matheny, N and J.R. Clark. 1998. *Trees and Development*. A technical guide to preservation of trees during land development. ISBN: 1-881956-20-2 Interl. Society of Arboriculture, Champaign, IL. www.isa-arbor.com 183p.
- Mattheck, C. and Breloer, H. 1994. *The Body Language of Trees: A Handbook for Failure Analysis*. Her Majesty's Stationary Office, London. 241pp.
- Roberts, John, N. Jackson & M. Smith. 2006. *Tree roots in the Built Environment*. TSO, London. 486 pp.
- Sydnor, T.D. & R.B. Heiligmann. *Trees & Home Construction*. Bulletin 870. Ohio State University.

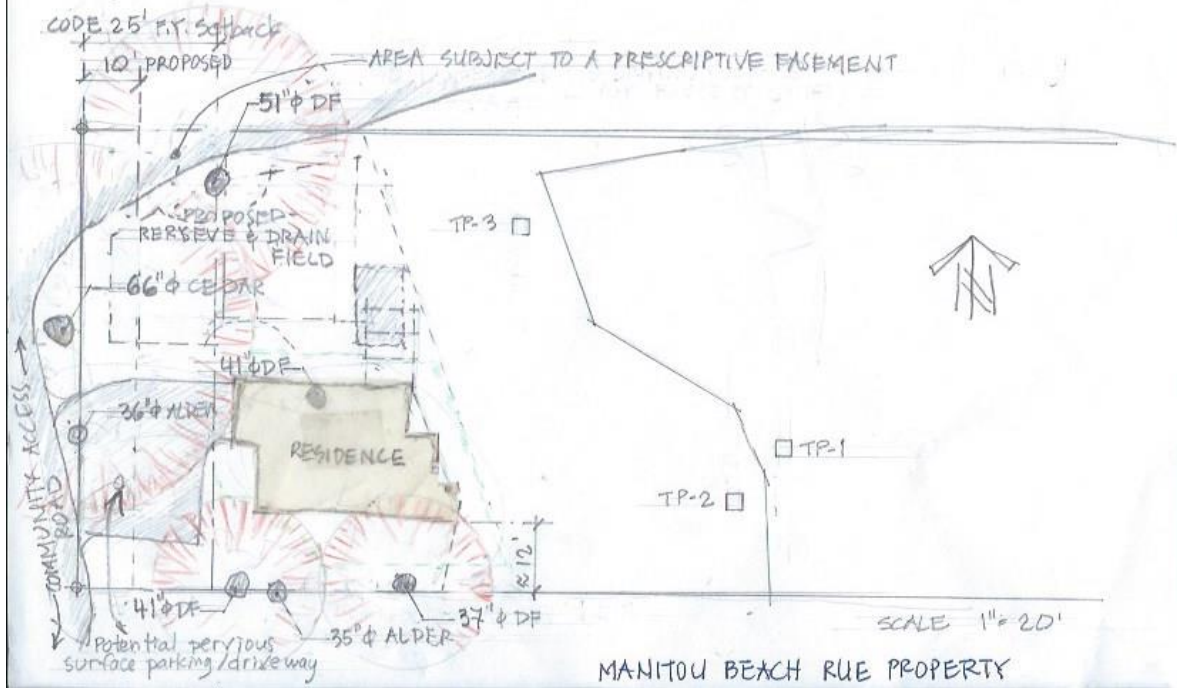
significant - landmark
 Cedar 30' min.
 D.F. 40'





= TREE PROTECTION LIMITS

Significant - landmark
Cedar 30" min.
D.F. 40"



From: [Kate Rutledge Jaffe](#)
To: [PCD](#)
Cc: [Annie Hillier](#)
Subject: Fwd: Comment - Manitou RUE & VAR (PLN51687 RUE & PLN51687 VAR)
Date: Friday, December 4, 2020 9:04:19 AM

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----- Forwarded message -----

I'm writing to comment on the plans for PLN51687 RUE & PLN51687 VAR. I have several questions that I'm hoping to resolve, as the neighbor opposite this proposed development:

- The property has several large cedars and douglas fir trees that I believe are landmark trees. I didn't see any information in the paperwork that indicated which trees would be protected. Is there a plan in place to protect significant and/or landmark trees on the property and can it be shared?
- Another tree - a large and aging alder - is leaning into the road. I'm concerned this construction could damage the tree, which is a potential danger. Are there any proposed construction plans to remove that tree and/or mitigate the potential danger during/post construction and can those plans be shared?
- Lastly, the current proposal sets the house - a large footprint - only 10 feet from a private one-lane road. This is significantly closer than any other homes on this road. The plans also leave no indication of parking, which is problematic given there is no public parking available on this road. Between the narrow road and the absence of any indicated parking spaces, I'm concerned this approach will create congestion and/or cause damage to the area - not only during construction (although that could pose issues for several homes) but in general for the future. Can a plan be shared for parking and a more standard setback?

Thank you for considering these questions/comments. This property is part of a small and vibrant community, and my hope is that we'll get a chance to hear more details that verify these plans are safe, ensure critical nature protections are in place, and that parking and property development are responsibly situated.

Sincerely,

Kate Jaffe
10001 NE Beachcrest Dr
Bainbridge Island, WA 98110

From: [Kirk Torren Smith](#)
To: [PCD](#)
Cc: [Douglass MacKenzie](#); [Linda Sohlberg](#)
Subject: PLN51687 RUE VAR
Date: Friday, December 4, 2020 12:10:24 PM

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In regards to the proposed “land Use Action” I won’t continue along the lines that most are likely to follow, namely: mitigation of a known wetland. Instead, I will speak to another concern entirely (although not unrelated) which is nearer and dearer to my thoughts...*the forest*.

I have spent nearly all of the previous 25 years of my life dedicated to the health and preservation of trees (doing so even at the expense of my own well being at times). Having received my initial training first as lead climber, then becoming manager of residential projects for Joseph Harry Tree Specialists of Portland, Oregon, I have first hand experience regarding the impact of construction upon mature trees such as the conifers that currently reside on the lot in question. As arborists, we were often contracted as consultants for both commercial developments (such as the McMenamins Breweries) and residential projects (PDX *actually* has a tree preservation plan) to oversee both the health and survivability of these irreplaceable natural features. Unfortunately, even under ideal conditions the success of such mitigation was ever in question, as building contractors tend to follow a “business as usual” approach regardless of any stipulations they are supposed to adhere to. Recent intervention efforts for a concerned homeowner on Pleasant Beach Drive has only reinforced this hard-earned opinion, and has me conclude that such cognitive bias and/or blindness is systemic, regardless of region.

Just follow the money.

Imagine my shock when it was brought to my attention plans to not only build upon the tidal wetland zone at Manitou Beach, but right in midst of one of the last stands of mature conifers on the island. Initially granting the benefit of doubt, I assumed such must involve fantastically engineered pilings floating a raised platform in an area where mature (and failing- they are merely a transitional species towards climax forest development) Alders were to be cleared to make room for a hypothetical house footprint...but alas, no. The plan proposes nestling the house in midst these remaining irreplaceable conifers.

Exactly how will this be accomplished without severe impact upon the expansive root zones of these towering evergreens? Realize the basic “rules of thumb” regarding proper tree care tend to involve 3rds: never remove more than 1/3 the total canopy...never damage more than 1/3 the root zone...exceptions are sometimes made (and “miracles” do happen-dependent upon the species), but the consequences for failure as implied by this proposal are to be classified as “potentially catastrophic.” One must realize the rather tenuous grip these large trees already have in the soil thereabouts (essentially shallow surface roots barely penetrating the sand/clay/rock matrix of ‘old beach’).

Upon viewing the available sparse details for this proposed lands usage, experience would lead one to assume the hypothetical house in question will have a traditional perimeter foundation?

Trenching for such a footing alone would remove nearly 1/2 the root zone of each of these trees: not to mention the additional damaging effects of soil elevation and/or root compaction. Have we

considered the slow rate of decline for trees of such age and size would likely not be noticeable until well past the “5 year mitigation” point (assuming they don’t catastrophically fail during the first major windstorm)? Have we considered the consequences of failure will likely involve the remaining forest as well as property damage to adjacent homes? I would deem such potential outcomes “risky to the point of foolishness” (at best).

Perhaps my mistake is assuming “lot preparation” won’t simply be yet another clear-cut.

Given the current trend of development on the island (and the seeming lack of discretion) I have come to the rather regrettable conclusion that the only real “planning goals” for the island are revenue-based. The rate of new construction, and the seeming lack of regard for long-term consequences are appalling to one who first moved to this island and became enamored of its charming character 31 years ago. That once-rural maritime charm has now been culled for more suburbanite sensibilities it seems.

-Kirk Torren Smith

Sent from [Mail](#) for Windows 10

From: [Luis Adan](#)
To: [PCD](#)
Subject: Fwd: Project: Manitou RUE & VAR
Date: Friday, December 4, 2020 3:26:16 PM

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Hello, please see my comment in the following email for the above referenced project.

Thank you,


Luis Adan
 805.404.7783

Begin forwarded message:

From: Annie Hillier <ahillier@bainbridgewa.gov>
Date: December 4, 2020 at 2:54:46 PM PST
To: lcladan55@yahoo.com
Subject: RE: Project: Manitou RUE & VAR

Thank you for your comment. Will you please send it to PCD@bainbridgewa.gov so that it can be added to the record?

Thank you,


**CITY OF
BAINBRIDGE
ISLAND**
ANNIE HILLIER

City Planner

www.bainbridgewa.gov

[facebook.com/citybainbridgeisland/](https://www.facebook.com/citybainbridgeisland/)

206.780.3773 (office) 206.780.0955 (fax)

Due to the City's COVID-19 response, the Planning and Community Development Department (PCD) has modified its operations. Please see the PCD webpage (<https://www.bainbridgewa.gov/154/Planning-Community-Development>) for current information.

From: lcladan55@yahoo.com <lcladan55@yahoo.com>
Sent: Friday, December 4, 2020 2:39 PM
To: Annie Hillier <ahillier@bainbridgewa.gov>
Subject: Project: Manitou RUE & VAR

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Hello Annie,

I'd like to register a concern regarding the above referenced project.

While I welcome the new neighbor and support their desire to develop their property, I do want to register a concern in that the setback provided at the front of the house of 10' will change the character of the neighborhood. Most, if not all houses on the road are set back significantly from the road and are buffered by landscaping or other natural elements.

As a developer, I respect the owner's right to develop their property, I would hope that we could meet with them to discuss a solution that would provide them with what they need and preserve the character of the neighborhood at the same time.

Luis Adan
9999 NE Beach Crest Dr
Bainbridge Island, WA 98110
805.404.7783



Department of Planning and Community Development

Memorandum

Date: November 25, 2020
To: Bill Broughton
From: PCD
Subject: Information request

Dear Mr. Broughton,

I have received comments on the wetland report from the City's Water Resources Technician and am requesting that his comments be addressed in a revised report. Additionally, I am asking for additional information on RUE criterion #2, as explained below, in order to support my recommendation to the Hearing Examiner. Please submit any responses/revisions via a single email to me, at ahillier@bainbridgewa.gov. And of course, if you have questions about any of these items, please do not hesitate to reach out.

Wetland delineation report and buffer mitigation plan comments:

- The contributing basin on Figure 8 is incorrect, the area draining to this unit is smaller and to the east. Please revise.
- The report does not agree with the last rating form we received from ELS. The unit had category II rating previously. Please either change the rating or explain why the rating is different than the last time it was rated.

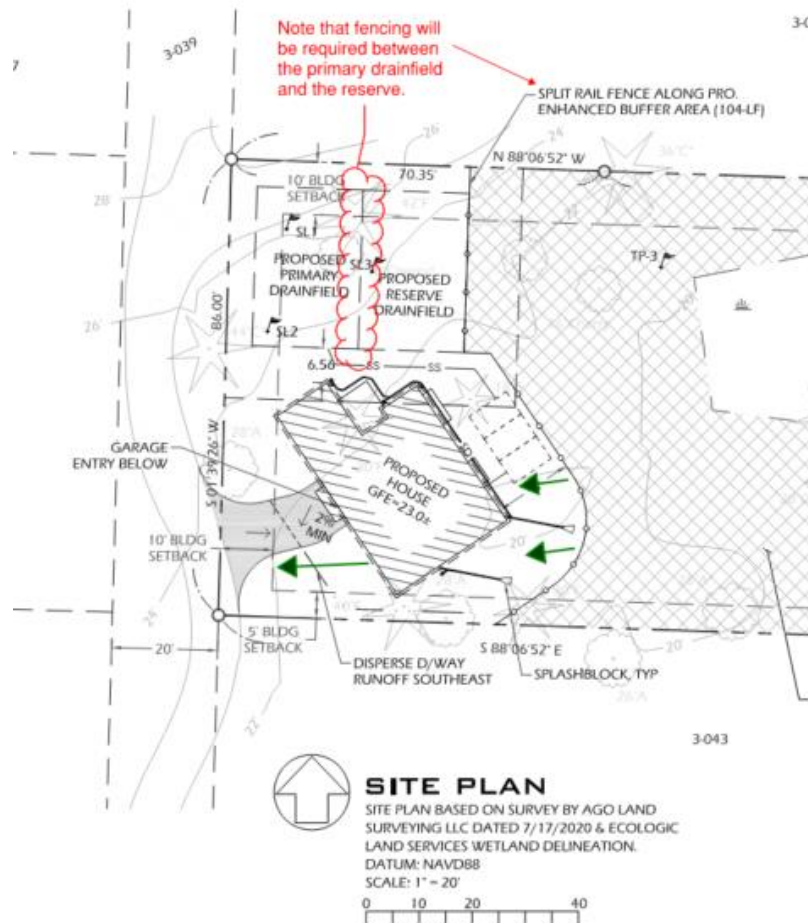
Please provide an updated wetland delineation report based on these comments.

RUE review criteria #2, *there is no reasonable alternative to the proposal with less impact to the critical area or its required buffer:*

- Could the SFR be shifted so that the front is located along the 10' reduced setback, in order to reduce the total impact to the buffer area? It appears that this may allow the entire development area to shift closer to the street and away from the wetland edge, reducing the total impact to the buffer. See drawing below. Since a garage is proposed within the building footprint, it would seem that a shorter driveway would be feasible as additional outdoor parking is not necessary.

If this is not practicable, please provide a written narrative substantiating the reasons. Or if reduced impacts would be insignificant, please provide a written narrative explaining how this was determined and the outcome of that analysis.

If shifting the SFR and development area west, to reduce impacts to the critical area, is practicable, the applicant has the option of submitting a revised site plan as a part of this land use permit application, or with the building permit application. Please indicate which is preferred.



Sincerely,
Annie Hillier

Annie Hillier

From: Annie Hillier
Sent: Monday, December 7, 2020 12:06 PM
To: 'Bill Broughton'
Subject: RE: Info. Request for PLN51687 RUE, Manitou RUE
Attachments: Information Request Memo.pdf

Hi Bill,

I'm updating the previously attached form with the correct date and name. My apologies for missing that.

I'm also providing you with a [link](#) so you can view the public comments that the City has received in relation to this project. (I think you were probably also provided instructions for viewing the project file online, when you submitted the application.) The City has received quite a few comments regarding significant tree removal on the site. I will follow up with a phone call, as I'd like to discuss how you'd like these comments addressed in the report to the hearing examiner.

Thank you,



Annie Hillier

City Planner

www.bainbridgewa.gov

[facebook.com/citybainbridgeisland/](https://www.facebook.com/citybainbridgeisland/)

206.780.3773 (office) 206.780.0955 (fax)

Due to the City's COVID-19 response, the Planning and Community Development Department (PCD) has modified its operations. Please see the PCD webpage (<https://www.bainbridgewa.gov/154/Planning-Community-Development>) for current information.

From: Annie Hillier
Sent: Wednesday, November 25, 2020 1:22 PM
To: Bill Broughton <bill@kitsaplawgroup.com>
Subject: Info. Request for PLN51687 RUE, Manitou RUE

Hi Bill,

I received comments on the wetland report from the City Water Resources Technician today, and am attaching those for your review. I've also asked for clarification on another item, also included in the memo. I do not think these comments will significantly impact your proposal, and I am able to continue working on my recommendation for the hearing examiner while you and the biologist work on addressing these last few things. I will just need a response from you by Jan. 1 or so, if we are going to stay on track for the hearing. But please do not let this stress you out over the holiday! If you have any questions or want to discuss how to address the comments, please let me know. I'd be happy to provide guidance.

Happy Thanksgiving,



Annie Hillier

City Planner

206.780.3773 (office) 206.798.4653 (mobile)

Annie Hillier

From: Bill Broughton <bill@kitsaplawgroup.com>
Sent: Monday, December 7, 2020 4:35 PM
To: Annie Hillier
Subject: supplemental response

Follow Up Flag: Follow up
Flag Status: Completed

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ms. Hillier

Staff has inquired as to the feasibility of moving the house closer to the access road.

Please consider this as my supplemental response.

The site plan as proposed provides a small area next to the access road for construction deliveries and worker parking.

If the home were moved closer to the road there would be no feasible way to build.

My neighbors are concerned about parking. This plan allows for some guest parking in the driveway to the garage.

Moving the house closer to the road will eliminate any parking.

There is a trade off here which is inevitable. A greater setback allows for more room for the neighborhood as they are requesting but impacts more of the buffer.

Bill Broughton

Best regards,

William H. Broughton
respon



3212 NW Byron St. Suite 101

Silverdale, WA 98383

P: 360.692.4888

F: 360.692.4987



December 16, 2020

Broughton Law Group
Attn: Bill Broughton
3212 NW Byron St. 101
Silverdale, WA 98383

RE: Updated Wetland Rating for Manitou Reasonable Use Exception & Variance (PLN51678)

Dear Bill,

This letter has been written in response to the Information Request from the City of Bainbridge Island (COBI) for the property located on Manitou Beach Drive, Kitsap County Tax Parcel No. 142502-304-02-005 in Bainbridge Island. The content below should serve to provide additional information for the *Wetland Delineation Report and Buffer Mitigation Plan*, dated May 13, 2020, revised December 16, 2020. This letter also discusses the potential impacts associated with the removal of up to eight significant trees, which are required to accommodate the proposed development.

Wetland Report Edits

The wetland rating was edited in October 2020 by ELS following a wetland boundary verification requested by COBI on a nearby property. The rating resulted in a change in scoring, increasing the total score from 18 to 21 total points which changed the wetland category from III to II. However, the habitat score for the wetland remains at 6 points, therefore the 110-foot wetland buffer still stands. As requested by the City, the contributing basin has been updated in Figure 8 and all other applicable figures were edited to reflect the updated wetland rating. The report was also updated with the current wetland category (Category II) and the updated rating form was added. Additionally, COBI requested the Mitigation Plan figure be revised by moving the split rail fence, so it is between the primary and reserve drainfield areas; this edit was made as well.

RUE Review Criteria #2

The Information Request also asked if the single-family residence (SFR) could *"be shifted so that the front is located along the 10' reduced setback in order to reduce the total impact to the buffer area"*. If the repositioning of the house does not impact the drainfield position, the buffer would gain approximately 350 square feet, however, this would not improve buffer function significantly. Considering the average length of a car is around 15 or 16 feet, a 10-foot wide space would not allow enough room for a car to park in front of the house or turn around on the property. Comments submitted by neighbors further indicate that moving the house closer to the road is not ideal or practicable because parking would not be available for visitors and the existing road does not have a shoulder. It is not feasible to reposition the home so that it is closer to the western property line and it has been moved as far away from the wetland as is practicable.

Significant Tree Removal

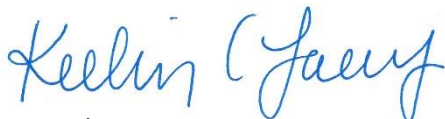
The current project proposal would require the removal of up to eight significant trees—four Douglas firs (ranging from 18 inches DBH to 40 inches DBH), one western red cedar (44 inches DBH), two red alders (both 28 inches DBH), and one cherry tree (10 inches DBH) (Figure 10). The *BIMC* considers evergreen trees greater than 10 inches DBH and deciduous trees greater than 12 inches DBH to be significant trees. However, per *BIMC* 16.32.005, these trees would not be considered “Landmark Trees” because they are not within the Winslow Master Plan Study Area.

The large trees on this property currently provide wetland buffer function, however, moving the house location to protect these trees would be detrimental to the long term function of the wetland and buffer. To preserve the eight trees, the house would be shifted east toward the wetland, which would significantly decrease the buffer width at the south end of the property resulting in a decrease of overall buffer function. Placing the home closer to the wetland boundary would increase impacts from light and noise generated by the residence and would reduce the ability of the buffer to slow and filter runoff. Additionally, if the house is shifted east there may still be impacts to other significant, though smaller, trees closer to the wetland boundary. Moreover, six of the eight trees would not function as part of the wetland buffer because they would be separated by permanent development (i.e., the single-family home) and would not be part of the protected buffer.

The current project plan proposes to place the house and primary drainfield as far as possible from the wetland, retain vegetation across the reserve drainfield, replant the primary drainfield, and enhance the entire 5,027 square feet of reduced buffer to minimize impacts to the wetland. Within the mitigation area, 17 trees will be planted which replaces the eight trees at a ratio of 2.1:1. Additionally, eight other significant trees will be retained within the buffer. It may be possible to swap the locations of the primary and reserve drainfield so that the 42-inch fir and 10-inch cherry are retained, however it appears their root systems could be affected by excavation of the drainfield. Further verification is needed by the COBI arborist to determine if these trees could survive. The drawback of swapping the drainfields, however, is that the primary drainfield would be closer to the wetland, which is not ideal considering it is a source of pollution and could affect water quality of the wetland.

The eight trees proposed for removal do provide aesthetic quality to the area and currently provide function for the wetland buffer, however, efforts to preserve all the eight trees may negatively impact the wetland by placing impacts much closer to the wetland boundary. The revised report, which contains the revised wetland rating figures and wetland rating form, is attached to this letter. If there is any further information required to complete permitting of this project, please contact me or Joanne Bartlett at (360) 674-7186 or by email at keelin@eco-land.com or joanne@eco-land.com.

Sincerely,



Keelin Lacey
Biologist

Attachments (1): *Wetland Delineation Report and Buffer Mitigation Plan-Revised December 16, 2020*



WETLAND DELINEATION REPORT AND BUFFER MITIGATION PLAN

May 13, 2020, Revised December 16, 2020



Manitou Beach Drive Property
Bainbridge Island, Washington

Prepared for

Broughton Law Group
3212 NW Byron St. 101
Silverdale, WA 98383
(360) 731-2111

Prepared by

Ecological Land Services

1157 3rd Avenue, Suite 220A • Longview, WA 98632

(360) 578-1371 • Project Number 3121.01

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Figure 3	Site Plan
Figure 4	Soil Survey Map

Figure 5	National Wetlands Inventory Map
Figure 6	Bainbridge Island Critical Areas Map
Figure 7	Wetland Rating Figure - 150' Offset
Figure 8	Wetland Rating Figure – 1 KM Offset
Figure 9	Wetland Rating Figure – 303(d)/TMDL
Figure 10	Mitigation Plan

Photoplates	Site Photos
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APPENDIX A


Wetland Determination Data Forms

APPENDIX B

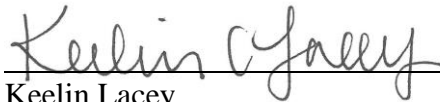
Western Washington Wetland Rating Form

SIGNATURE PAGE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.



Joanne Bartlett, PWS
Senior Biologist



Keelin Lacey
Biologist

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by Bill Broughton to conduct a wetland delineation for a lot in Bainbridge Island near Manitou Beach Drive, Kitsap County Tax Parcel Number 142502-304-02-005. This lot is located within a portion of Section 14, Township 25 North, Range 2 East of the Willamette Meridian, in Bainbridge Island, Washington (Figure 1). This first half of the report summarizes findings of the wetland delineation according to the *City of Bainbridge Island Municipal Code (BIMC), Chapter 16.20.140* (2018) for delineation methodology, wetland categorization, and required buffer widths. The latter half of this report discusses the site development proposal and mitigation plan required for the Reasonable Use Exception (RUE). A RUE is required to provide buildable space on this property because the entire property is encumbered by the wetland and 110-foot wetland buffer.

METHODOLOGY

The wetland delineation followed the Routine Determination Method according to the U.S. Army Corps of Engineers, *Wetland Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region, Version 2.0* (U.S. Army Engineer Research and Development Center 2010).

The Routine Determination Method examines three parameters—vegetation, soils, and hydrology—to determine if wetlands exist in a given area. Hydrology is critical in determining what is wetland but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands are regulated as “Waters of the United States” by the U.S. Army Corps of Engineers (USACE), as “Waters of the State” by the Washington Department of Ecology (Ecology), and locally by the City of Bainbridge Island.

To verify the wetland boundaries on the lot, ELS biologists collected data on vegetation, soils, and hydrology. The delineation site visit was conducted on June 17, 2019, during which, one wetland was delineated. The wetland boundary was delineated using consecutively numbered fluorescent flagging labeled “WETLAND BOUNDARY”. The wetland boundary was determined through breaks in topography, changes in vegetation, and evidence of surface hydrology. Vegetation, soil, and hydrology data was collected at three test plots to verify the wetland boundary (Appendix A). The wetland boundary and test plots were mapped using a handheld GPS unit to show the extent of the wetland and data collection on the site map (Figure 2).

SITE DESCRIPTION

The site consists of a 0.63-acre rectangular lot accessed from Manitou Beach Drive in Bainbridge Island, Washington (Figure 2). A gravel driveway runs north from Manitou Beach Drive and provides access to the western side of the lot. The lot lies on the east side of Bainbridge island in the Murden Cove area. This and the surrounding residential lots are zoned R-2, which allows 2

units per acre of land. The lots to the west, north, and east are developed with single-family homes and the lot to the south is undeveloped. Topography throughout the lot slopes gradually from northwest to southeast and is vegetated by mixed coniferous and deciduous forest. Invasive English ivy was dominant throughout the lot. Water drains downslope toward the east into a depression where one wetland, Wetland A, was identified (Photoplate 1). Wetland A is a Category II forested depressional system with a saturated only hydroperiod onsite. Offsite, the wetland has emergent and seasonally flooded areas. The wetland continues offsite to the east and south (Figure 6).

VEGETATION

Wetland Vegetation

The onsite portion of is a forested system with a canopy dominated by western red cedar (*Thuja plicata*, FAC) and a shrub layer dominated by salmonberry (*Rubus spectabilis*, FAC). The herbaceous layer onsite was dominated by lady fern (*Athyrium cyclosorum*, FACU), skunk cabbage (*Lysichiton americanum*, OBL), and horsetail (*Equisetum arvense*, FAC). English ivy (*Hedera helix*, FACU) was also prevalent throughout the wetland and upland.

Upland Vegetation

The upland forest canopy consisted of western red cedar and Douglas fir (*Pseudotsuga menziesii*, FACU) with moderate coverage in the shrub layer by salmonberry, red elderberry (*Sambucus racemosa*, FACU), English laurel (*Prunus laurocerasus*, FACU) and English holly (*Ilex aquifolium*, FACU). There was low to moderate cover in the herbaceous layer by sword fern (*Polystichum munitum*, FACU), and trailing blackberry (*Rubus ursinus*, FACU).

The dominant vegetation found onsite is recorded on the attached wetland determination data forms (Appendix A). The indicator status, following the common and scientific names, indicates how likely a species is to be found in wetlands. Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) – Almost always occur in wetlands.
- **FACW** (facultative wetland) – Usually occur in wetlands but may occur in non-wetlands.
- **FAC** (facultative) – Occur in wetlands and non-wetlands.
- **FACU** (facultative upland) – Usually occur in non-wetlands but may occur in wetlands.
- **UPL** (obligate upland) – Almost never occur in wetlands.
- **NI** (no indicator) – Status not yet determined.

SOILS

As referenced on the U.S.D.A. Natural Resources Conservation Service (NRCS 2019) website, Harstine gravelly ashy sandy loam, 16 to 15 percent slopes (15) is the primary soil unit mapped on the lot (Figure 3). Harstine soils are moderately well drained, formed from sandy glacial till, and is usually found in uplands. Areas mapped as hydric or non-hydric do not necessarily mean an area is or is not wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

Wetland Soils

The evaluated wetland soil at Test Plot 1 was composed of a top layer of 8 inches of black (10YR 2/1) muck underlain by two inches of dark brown (10YR 3/1) silt loam and a third layer of medium brown (10YR 4/3) sandy silt loam. This soil profile met hydric soil indicator A2: Histic Epipedon, because of the presence of a muck layer above the mineral soil layers.

Upland Soils

The evaluated upland soil at Test Plot 2 consisted of a thick layer (12 inches) of duff underlain by a mixed layer (50 percent 10YR 3/2 and 50 percent 10YR 3/6) of gravelly sandy loam. The soil profile at Test Plot 3 consisted of a top layer of dark brown (10YR 2/2) sandy silt loam underlain by ten inches of mixed (50 percent 10YR 4/4 and 50 percent 10YR 4/6) gravelly sandy loam. The mixed soils did not meet any hydric soil indicators because their matrix chromas were too high, they lacked redoximorphic features, and organic soils were not present.

HYDROLOGY

Hydrology was observed in Wetland A as saturation to the soil surface and a high-water table at 12 inches depth. Offsite, the wetland also has a small seasonally flooded area (Figure 6). Wetland A receives water from groundwater discharge and from upslope runoff. Water leaves the wetland primarily through evapotranspiration and a highly constricted permanently flowing outlet at the south end of the offsite portion of the wetland. The upland did not display any evidence of hydrology. No saturation, water table, oxidized rhizospheres, water marks, or other primary indicators were present at upland Test Plots 2 and 3.

NATIONAL WETLAND INVENTORY

The National Wetlands Inventory (NWI) does not map any wetlands on or within the vicinity of the lot (USFWS 2019). The closest wetland areas mapped by the NWI is a freshwater emergent wetland over 400 feet southwest of the lot and estuarine and marine wetlands in Murden Cove. The NWI maps should be used with discretion because they are used to gather general wetland information about a regional area and therefore are limited in accuracy for smaller areas because of their large scale.

BAINBRIDGE ISLAND CRITICAL AREAS

The Bainbridge Island Critical Areas map (BI 2019) shows a delineated wetland on the parcel east of the lot, which extends to the south and splits into two lobes around development along Manitou Beach Drive (Figure 5). The city maps also show a delineated wetland southwest of the lot in approximately the same location as the NWI wetland, though it is larger on the BI maps. The wetland mapped to the southeast of this lot is similar in shape to the rest of the offsite portion of Wetland A.

CRITICAL AREAS SUMMARY

WETLAND CATEGORIZATION

Wetland A is a forested depressional system with a saturated only hydroperiod onsite and seasonally flooded areas offsite to the south. Offsite, the wetland also has an emergent portion, but this makes up approximately 9 percent of the total wetland area and does not meet the 10 percent threshold to qualify as one of the wetland's Cowardin classes for rating purposes. The wetland was rated according to *Washington State Wetlands Rating System for Western Washington – 2014 Update* (Rating System) (Hruby 2014). The wetland received its ratings based on functions (Appendix B). The rating is summarized in Table 1.

Table 1. Summary of Wetland Ratings

Wetland	HGM Class	Vegetation Class	Hydroperiods	Habitat Score	Total Score	Category
A	Depressional	Forested Forested with 3 layers	-Saturated only -Seasonally flooded or inundated	6	21	II

Offsite Wetland Determination

The boundary of the offsite portion of the wetland is based on both direct observations and indirect (online) resources. Direct observations include walking public roads nearby the wetland to observe the vegetative communities and geomorphic position of the wetland, as well as previous delineations performed on properties in the area. Online resources, such as critical areas mapping, topographic contours, and aerial photos were used to further reinforce ELS's conclusions of the offsite wetland boundary. Due to property ownership constraints, it is infeasible to delineate the exact boundary of the offsite portions of the wetland, and therefore best professional knowledge and practices must be used to determine offsite wetland boundaries.

CRITICAL AREA REGULATIONS

The *BIMC Chapter 16.20 Critical Areas Ordinance* specifies buffer widths based on the category of the wetland, the intensity of the proposed land use, and scores for habitat functions. Residential development on properties zoned as R-2 is considered moderate intensity land use. The required buffer width for Category II wetlands with moderate habitat scores within moderate land use intensity is 110 feet. A 15-foot building and impervious setback is also required from the buffer edge. Due to the position of the wetland on this small lot, the 110-foot buffer covers the entirety of the western portion of the lot, extending past the lot boundaries (Figure 2).

REASONABLE USE EXCEPTION

The project proposes to build a single-family home, septic system, and driveway on the western third of the lot, outside of Wetland A. The lot is encumbered by the wetland, which covers approximately half of the lot, and the wetland buffer, which covers the remainder of the lot and extends offsite. Therefore, the entire property is composed of the Category II wetland and its required 110-foot buffer. There is no alternative to building the home within a portion of the buffer so there is no potential to avoid buffer impacts. However, the house has been oriented to minimize impacts to the buffer. The BIMC allows a 25 percent buffer reduction, which reduces the buffer to 82.5 feet. The administrative reduction does not create a building site that will

accommodate the home and drainfield. To accommodate a single-family home on this lot, impacts to the buffer are necessary and must proceed through the reasonable use exception (RUE) process outlined in *BIMC Section 16.20.080*. Buffer mitigation is required to compensate for the buffer reduction. As part of the RUE process, the project must demonstrate that it minimizes impacts to the critical area and its buffer. Mitigation for this project includes removal of invasive English ivy, which dominates most of the understory on this property, and planting additional native species within the buffer.

MITIGATION SEQUENCING

Avoid the Impact: The entirety of this property is encumbered by Wetland A and its 110-foot buffer (Figure 2). The project cannot avoid impacts to the buffer but can avoid direct impacts to the wetland itself. The house and septic system have been proposed as far as possible from the wetland boundary (Figure 3). This has been accomplished by reducing the side yard setback to five feet and the front yard setback to ten feet adjacent to the house (Figure 3). The septic system has also been proposed as close to the front of the property as possible and the septic tank location has been rotated to minimize buffer impacts. The house has also been oriented to minimize impacts to the buffer, rather than placing it parallel to the property lines. Prior to construction the wetland boundary and clearing limits will be clearly marked to prevent any intrusion into these areas. Construction staging and stockpiling will also take place outside of these areas.

Minimize the Impact: This project minimizes impacts by placing the proposed house and drainfield as close to the western property boundary as is possible and by utilizing pervious surfaces in the driveway and walkways surrounding the home. The house footprint also does not exceed 1,200 square feet. There will be no direct impacts to the wetland. Additionally, the vegetation across reserve drainfield and the side and front-yard setbacks adjacent to the septic system will be retained to minimize vegetative disturbance onsite.

Rectifying the Impacts. The home, driveway, and drainfield represent permanent features within this area of buffer so the impacts cannot be fully rectified.

Reducing or Eliminating the Impacts through Preservation or Maintenance. The project cannot eliminate the impacts by preservation and maintenance.

Compensate for the Impact: The project cannot avoid, rectify, or reduce the impact to the wetland buffer but has minimized the impact to the extent possible by proposing the home, driveway, and septic system as far from the wetland boundary as possible. Because the project cannot avoid all impacts to the wetland buffer, mitigation is proposed to compensate for the 3,716 square feet of permanent impacts from the proposed house, driveway, primary drainfield, and septic tanks (Figure 10). The mitigation plan will include removal of invasive vegetation and planting of native species within the remaining 5,027 square feet of wetland buffer. The primary drainfield will also be planted with native shrubs and herbaceous species and vegetation will be preserved across the reserve drainfield. Removal of English ivy, English laurel, and English holly from the understory within the buffer will allow space for more native species to be planted and create a denser more varied buffer than what currently exists. To ensure that the mitigation area is protected, split rail fencing will be installed along the edge of the designated buffer area to demarcate the critical area and to limit human intrusion. Overall, the mitigated buffer will have

better function onsite than the existing buffer area because invasive plants will be removed, additional planted species will provide different vegetative layers, and there will be an increase in species diversity.

Monitor the Affects of the Impact: The mitigation plan will be monitored for a period of 5 years to ensure that the plan meets the goals, objectives, and performance standards of the mitigation.

WETLAND BUFFER IMPACTS

The proposed buffer intrusion will impact approximately 3,716 square feet of the wetland buffer but is necessary to allow for construction of the house, driveway, and septic system on this small property. The project seeks to place the house, driveway, and septic as far from the critical areas as possible but cannot avoid impacting buffer. The existing wetland buffer is dominated by invasive species which outcompete the native plants growing in the buffer. English ivy is a particularly aggressive Class C weed that prevents understory plants from growing while also killing understory and overstory trees (NWCB 2020). The ivy on this property is prevalent, spreading across the understory and climbing trees so there is little diversity onsite and cover by understory plants is relatively low. The proposed native plantings will be installed where ivy is removed and will increase plant species diversity and provide a lift in habitat function.

The width of buffers necessary to protect a critical area from degradation is related to the functions of the critical area and the buffer itself (Castelle, et al. 1992). Buffers function to protect water quality of critical areas including streams by removing sediment and nutrients from runoff. The function depends on the type of soils, vegetation, and characteristics of the runoff. The function of buffers is also based on width and slope. In some cases, buffers as low as 50 feet are effective in filtering pollutants when there is dense groundcover, no slope or a gradual slope, and the runoff sheet flows across the buffer. The house location has been chosen in the southwestern corner of the property to retain as much buffer as possible between the house and the wetland. By placing the house here, there will be more distance between the house and wetland so the buffer will be able to better filter runoff than if the structure was placed at the north end of the property. The mitigation plantings will also increase the density of the buffer and improve its ability to filter light and noise from the home. Impacts across the property are also minimized by retaining vegetation in the setbacks adjacent to the drainfield and across the reserve drainfield. Additionally, the primary drainfield will be replanted with native vegetation following construction.

BUFFER MITIGATION PLAN

The project proposes to permanently impact 3,716 square feet of wetland buffer to build the single-family house, driveway, and septic drainfield (Figure 3 and Figure 10). Because options for offsite mitigation are not available on Bainbridge Island at this time, mitigation is proposed onsite. Due to the size of this property, mitigation is proposed within the remaining 5,027 square feet of wetland buffer. Mitigation will include removal of invasive species and planting of native species within the forested buffer. The removal of these invasive species will allow the existing native plants to proliferate. The proposed plantings will also enhance the buffer by adding plants of varying heights. At the end of the monitoring period the buffer will be denser, which will provide increased function to block light and noise from residential activity. The resultant buffer will have

more species diversity, which will attract wildlife. Additionally, the plants will slow and filter runoff from impervious surfaces upslope.

STRUCTURES AND FUNCTIONS SOUGHT

The onsite wetland buffer is composed of forest consisting of Douglas fir, western red cedar, English laurel, English holly, salmonberry, red elderberry, English ivy, and sword fern. Currently the onsite buffer provides some screening for the wetland, however the species diversity of the wetland buffer is low because of invasive vegetation. The removal of invasive species will allow for native species to flourish and enhancement plantings will increase diversity of plant species in the buffer. Enhancing the buffer with more trees and shrubs of varying heights will also improve the buffer's ability to screen the wetland from light and noise from the single-family residence. The new trees and shrubs would also create a more diverse vegetation community improving habitat function for the critical area and its buffer (Granger et. Al. 2005). Diversity is a goal of riparian zone management practices because a variety of plants provides a variety of function (Ecology 2018). In addition, planting native trees will allow for additional buffer function by providing sources of downed wood (Hruby 2013).

The onsite development intends to maintain as much of the existing forest as is possible. This is also accomplished by retaining vegetation across the reserved drainfield and replanting the primary drainfield with native species. Once construction is complete, invasive English ivy, holly, and laurel, will be removed from the understory within the remaining buffer. Following removal of the invasive species, trees, shrubs, and ferns will be planted throughout the buffer. These species are shade-tolerant and will thrive in the dark understory of the existing native trees. Trees and shrubs of different heights were selected to increase habitat function and replace the ivy growing in the understory.

BUFFER MITIGATION SUCCESS

The likelihood of success is typically associated with creation or restoration of wetland for direct impacts to the wetland. No direct wetland impacts are proposed for this project, therefore mitigation for direct impacts to the wetland are not required. This property is disturbed and much of the understory is dominated by ivy. This project proposes to enhance the entirety of the remaining buffer by replacing the invasive species with native trees, shrubs, and ferns, which will improve overall habitat function in the buffer. There is little data on the success of buffer mitigation except anecdotally from local wetland professionals, including Ecological Land Services, Inc. (ELS). ELS has conducted many buffer mitigation plans over the years that have successfully improved buffer functions and diversity through installation of native plants.

The success of the mitigation plan depends on the species selected for installation and should include native species that occur in the area. The project biologist is a professional wetland scientist (PWS) certification and with 29 years of experience in Kitsap County and Bainbridge Island and has done hundreds of buffer mitigation plans that have proven successful and provide high quality native buffers. The likelihood of the ability of the enhanced buffer to provide improved buffer functions is high when comparing the condition of the existing buffer, which is dominated by invasive ivy, with the proposed mitigated buffer to increase the function through installation of native trees, shrubs, and ferns. The likelihood of success is also determined by designing a monitoring plan with attainable performance standards, compensation goals, and

follow-up maintenance. There are no changes to the water dynamics of the buffer or the wetland because there are no direct impacts to the wetland.

SPECIFICATIONS FOR SITE PREPARATION

The tasks listed below will achieve the buffer mitigation goals and objectives. These tasks are listed in the order they are anticipated to occur; however, some tasks may occur concurrently or may precede other tasks due to site and procedural constraints.

Mitigation Area

1. Define extent of mitigation area onsite following construction of the home, driveway, and drainfield.
2. Remove invasive English ivy from the buffer (NWCB 2020):
 - a. Plants can be pulled by hand or dug out, preferably in fall through spring before dormant plants start to grow.
 - b. If removing plants in spring and summer, use caution not to damage native plants growing nearby.
 - c. If vines are climbing trees, cut the vines around waist to chest height and pull away the lower part of the stems from the base of the tree. This will kill the upper portions of the vine.
 - d. Dispose of vines away from the site or allow vines to dry out so they do not re-root. Once vines are dry, they cannot re-establish. If ivy stems or roots are left in the soil, they can re-sprout.
 - e. Areas where ivy is pulled can be sheet mulched with layers of wood chips from a clean source.
3. Install plantings according to specifications proposed herein.
4. Place woody mulch or organic compost around plants after installation to minimize regrowth of invasive species and to allow soil moisture retention.

GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

Project Goal: Improve buffer functions to compensate for construction within the wetland buffer.

Objective 1: Control invasive species.

Performance Standards 1 (a): During monitoring Years 1 through 5, invasive species will be removed and suppressed within the planting areas as often as necessary to meet a performance standard of no greater than 10 percent cover by invasive species. Percent cover will be recorded annually and included in monitoring reports.

Objective 2: Improve native plant cover and buffer function.

Performance Standard 2 (a): The project will maintain 100 percent survival of plants during the entire 5-year monitoring period. Plant species number will be recorded annually and compared with as-built conditions for inclusion with the monitoring reports.

Performance Standard 2 (b)¹: Native installed and volunteer species in the buffer mitigation areas will provide a minimum of 10-percent cover in Year 1, 15-percent cover in Year 2, 20 percent cover in Year 3, 30 percent cover in Year 4, and 40 percent cover within the planted

¹ Performance standards for percent cover will be slightly lower than typical because most of the buffer (approximately 2/3) is already vegetated by mature trees and shrubs.

areas. Plant species and percent cover will be recorded annually and included in monitoring reports.

SPECIFICATIONS FOR PLANTING

The plants specified for installation are intended to enhance the wetland buffer by screening noise and light from the developed upland, increasing species diversity, and by filtering runoff from upslope. The plants will be potted, 1 gallon in size, from local nurseries stocking native plants. Plant installation shall take place following construction and installation of the development features.

Plant Materials

1. Plants will be purchased from local nurseries.
2. Potted plants will be 1 gallon in size.
3. No damaged or desiccated roots or diseased plants will be accepted.

Planting Specifications

Plants will be installed per the attached mitigation plan around existing trees and native shrubs. The plant quantities were calculated based on the square footage of the planting area and the existing space occupied by native trees and shrubs. Table 1 provides a list of plants proposed for installation within the wetland buffer. Plantings will be spaced to allow for access around the planted species for the continual need for removal of invasive plants.

Table 2 summarizes the total plant species, spacing, size, and quantities for the mitigation area and drainfield planting area. The spacing of plants will allow for healthy mature growth of individual species and range from 5 feet on center for lower stratum plants to 25 feet on center for the high stratum tree species. Plants indicated on the planting plan are subject to availability from regional native plant nurseries and may be substituted with similarly performing native plants. The final location of the plants may differ from the planting plan, as site conditions dictate, and any changes will be documented on the as-built drawing prepared after completion of plant installation. The species selection—western red cedar, vine maple, red elderberry, snowberry, sword fern, and deer fern—was based on the existing plants growing on the property and plants that can thrive in shady understory conditions. The drainfield plantings consist of snowberry, sword fern, deer fern, fringe cup, and false Solomon's seal; no trees or large shrubs are proposed so that the integrity of the drainfield is not compromised.

Table 2. Plant specifications

Species	Spacing (feet)	Quantity	Size
<i>BUFFER MITIGATION AREA (5,027 FT²)</i>			
Western red cedar (<i>Thuja plicata</i>)	25	8	1 gallon pots
Vine maple (<i>Acer circinatum</i>)	12	9	1 gallon pots
Red elderberry (<i>Sambucus racemosa</i>)	12	8	1 gallon pots
Snowberry (<i>Symphoricarpos albus</i>)	12	10	1 gallon pots
Sword fern (<i>Polystichum munitum</i>)	5	85	1 gallon pots
Deer fern (<i>Blechnum spicant</i>)	5	80	1 gallon pots
Total		200 ²	
<i>DRAINFIELD PLANTINGS (600 FT²)</i>			
Snowberry (<i>Symphoricarpos albus</i>)	5	20	1 gallon pots
Sword fern (<i>Polystichum munitum</i>)	3	30	1 gallon pots
Deer fern (<i>Blechnum spicant</i>)	1	15	3.5" pots
Fringecup (<i>Tellima grandiflora</i>)	1	15	3.5" pots
False Solomon's seal (<i>Smilacina racemosa</i>)	1	15	3.5" pots
Total		95	

Plant Installation Specifications

1. Plant the specified trees and shrubs the winter following construction as listed in Table 2. Space the plants somewhat irregularly and in groups to create eventual dense heterogeneity in the planting area, leaving enough space between each group to allow for access for weed removal. Plant the potted stock with a tree shovel or comparable tool.
2. Place the plants in the planting holes and position the root crowns so that they are at, or slightly below, the level of the surrounding soil. Planting just below the surrounding soil will create a shallow depression around each plant for retention of water.
3. Firmly compact the soil around the planted species to eliminate air spaces.
4. Install anti-herbivory devices, such as seedling protection tubes or mesh protection netting, around the stems of planted species when appropriate, and secure them with stakes.
6. Irrigate all newly installed plants as site and weather conditions warrant.

² The plant quantities and spacing proposed are due to existing native forest vegetation growing in the buffer. Installed plants will be planted around existing native plants. Invasive species, mainly English ivy, will be removed from the entire buffer enhancement area prior to planting.

MAINTENANCE PLAN

Maintenance of the mitigation area will occur for five years and will involve removing invasive plant species, irrigating planted species, and reinstalling failed plantings, as necessary. The maintenance may include the following activities:

1. Remove and control invasive vegetation around all newly installed plants a minimum of two times during the growing season for the first five years.
2. Irrigate planted species as necessary during the dry season, approximately July 1 through October 15. ELS recommends that watering occur at least every two weeks during the dry season for the first three years. The most successful method of watering plants is using a temporary above-ground irrigation system set to a timer to ensure the plants are regularly watered.
3. Replace dead or failed plants as described for the original installation to meet the minimum annual survival rate and percent cover performance standards.

MONITORING PLAN

The buffer mitigation area will be monitored annually for a 5-year period following plant installation. Monitoring is proposed at the end of the growing season in Years 1 through 5. Monitoring reports will be submitted to the Bainbridge Island Department of Community Development (BIDCD) by December 31st of each monitored year. The goal of monitoring is to determine if the previously stated performance standards are being met. The mitigation area will be monitored once during the growing season, preferably during the same two-week period each year to better compare the data. Individual monitoring units may be established within the mitigation area to track the changes occurring over the monitoring period.

Vegetation

Vegetative monitoring will document the developing shrub and tree layers. The following information will be collected in the buffer mitigation area:

- Percent cover and frequency of sapling/shrub species
- Percent cover and frequency of tree species
- Species composition of shrubs and trees, including non-native, invasive species.
- Photo documentation of vegetative changes over time.

Monitoring Report Contents

The annual monitoring reports will contain at least the following:

- Location map and representational drawing.
- Historic description of project, including dates of plant installation, current year of monitoring, and restatement of goals, objectives, and performance standards.
- Description of monitoring methods.
- Documentation of plant cover and overall development of plant communities.
- Assessment of non-native, invasive plant species and recommendations for management.
- Photographs from permanent photo points.

- Summary of maintenance and contingency measures proposed for the next season and completed for the past season.

CONTINGENCY PLAN

If the performance standards are not being met during the 5-year monitoring period, contingency measures will be implemented to achieve the standard by the next monitoring season. The contingency measures utilized will depend on the failure of the plants or maintenance activities and will include but are not limited to replacement of dead plants (with the same or a similar species) when the survival rate standard is not met, addition of plants when the yearly percent cover standard is not met, and more intensive maintenance if the invasive plant cover exceeds 10 percent. All contingency actions will be undertaken only after consulting and gaining approval from the BIDCD. The applicant will be required to complete a contingency plan that describes (1) the causes of failure, (2) proposed corrective actions, (3) a schedule for completing corrective actions, and (4) whether additional maintenance and monitoring are necessary.

CONCLUSIONS

This property is encumbered by a Category II depressional wetland on the eastern half of the lot. Due to the location of the wetland, its buffer extends beyond the western lot line and it is not possible to build on this lot without impacting the buffer. Administrative buffer reductions cannot provide enough buildable space for a modestly sized home, driveway, and septic system on the property and must proceed through the RUE process. Buffer mitigation is required to compensate for the reduced buffer area per the *BIMC*. The mitigation proposes to remove invasive vegetation from the buffer and plant native species in its place. The mitigation will provide a functional lift for the existing buffer and result in no net loss of ecological functions as a result of the project.

LIMITATIONS

ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

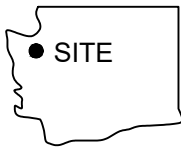
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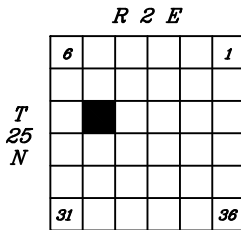
FIGURES & PHOTOPLATES

WASHINGTON



46.6552° Latitude
-122.5137° Longitude

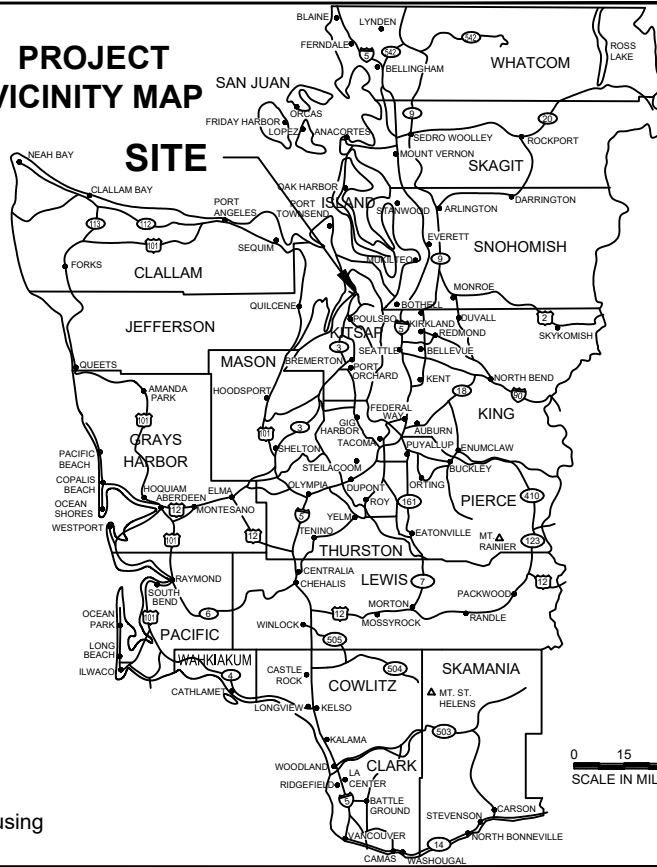
LOCATION MAP



NOTE:

USGS topographic quadrangle map reproduced using
MAPTECH Inc., Terrain Navigator Pro software.

PROJECT VICINITY MAP



0 15 30
SCALE IN MILES

Figure 1

VICINITY MAP

Manitou Beach Drive Property
Bill Broughton
City of Bainbridge Island, Kitsap County, WA
Section 14, Township 25N, Range 2E, W.M.

DATE: 12/15/20

DWN: JLL

REQ. BY:

PRJ. MGR: KL

CHK:

PROJECT NO:

3121.01

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Longview, WA 98632

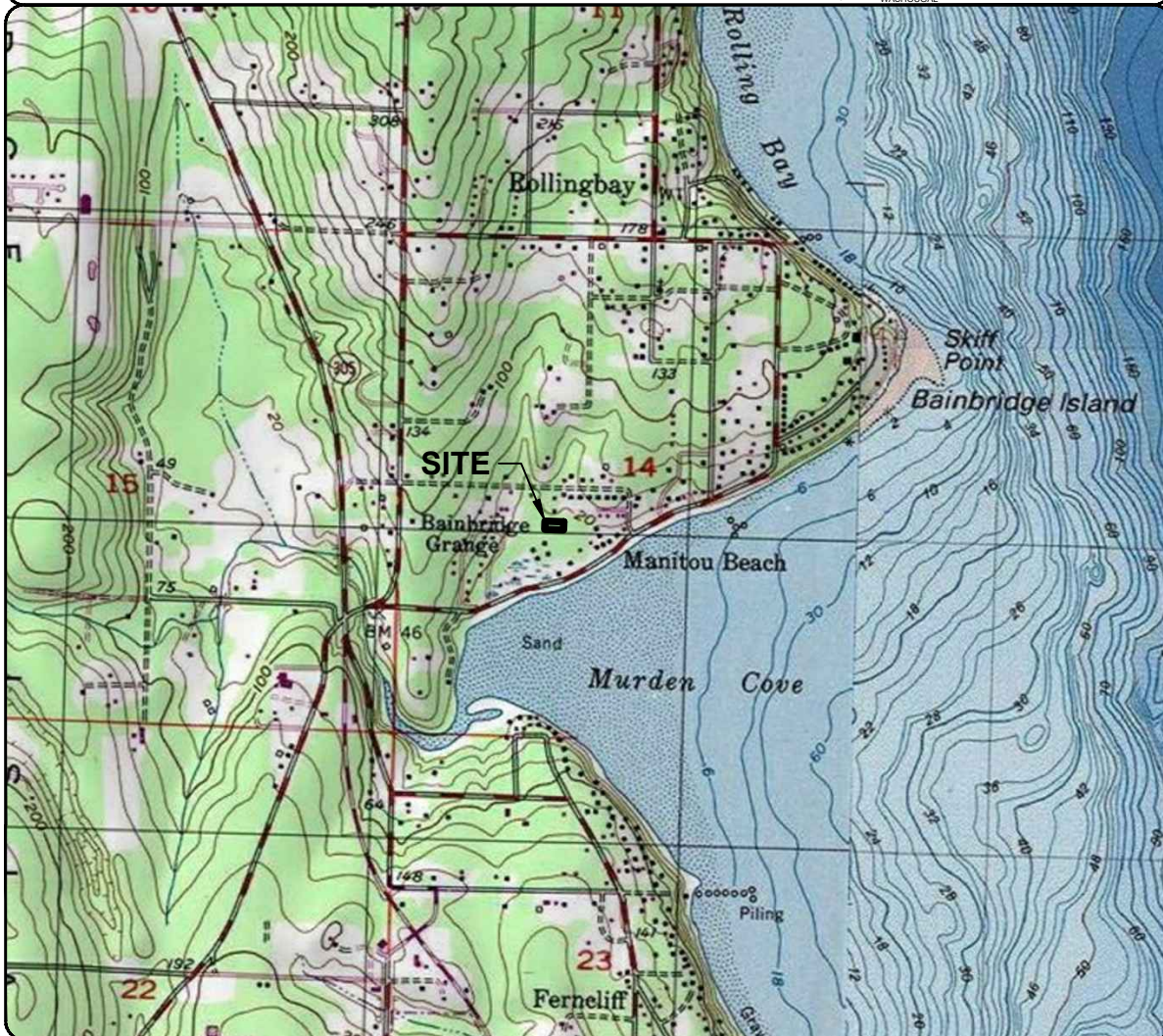
Phone: (360) 578-1371

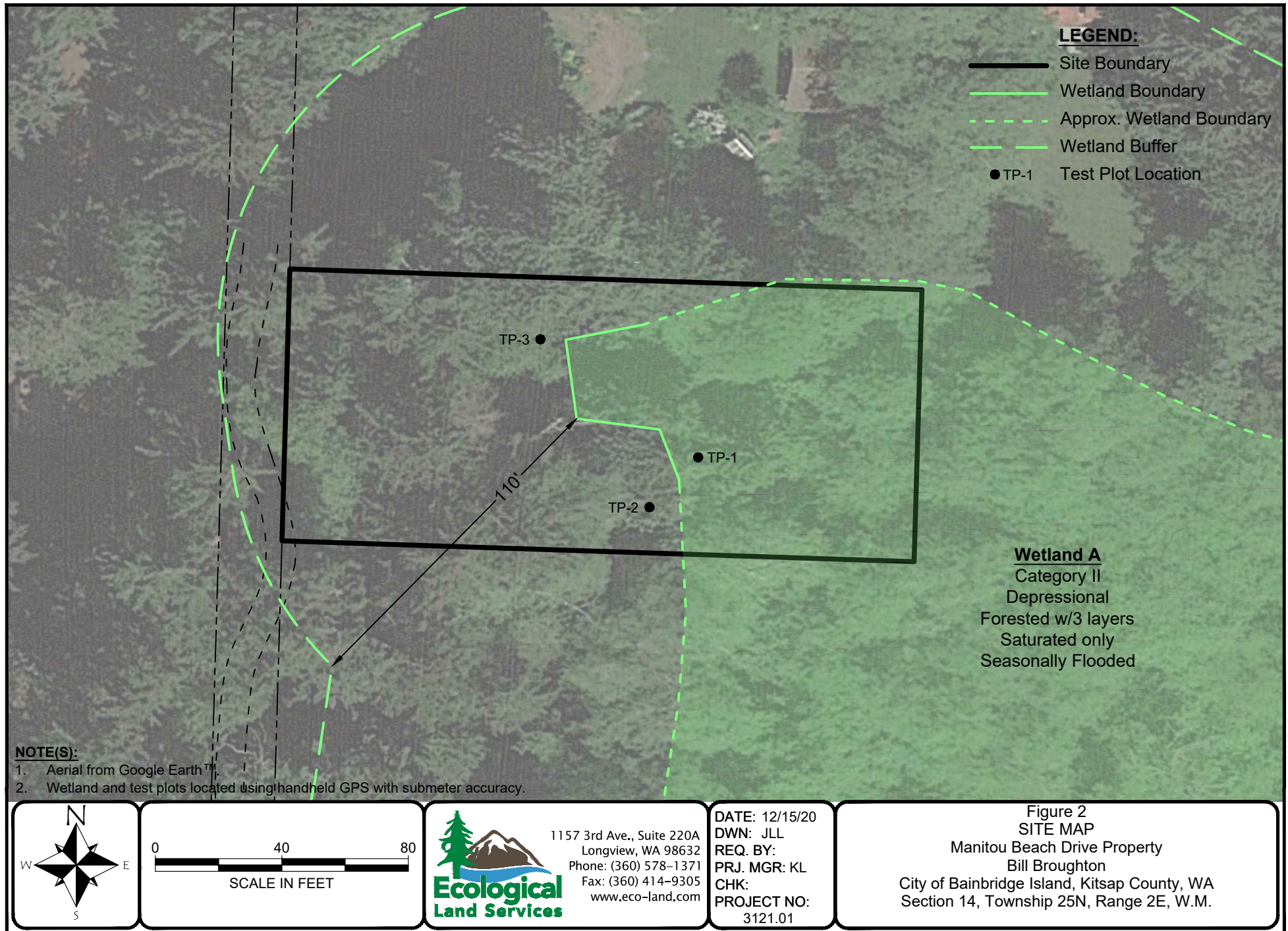
Fax: (360) 414-9305

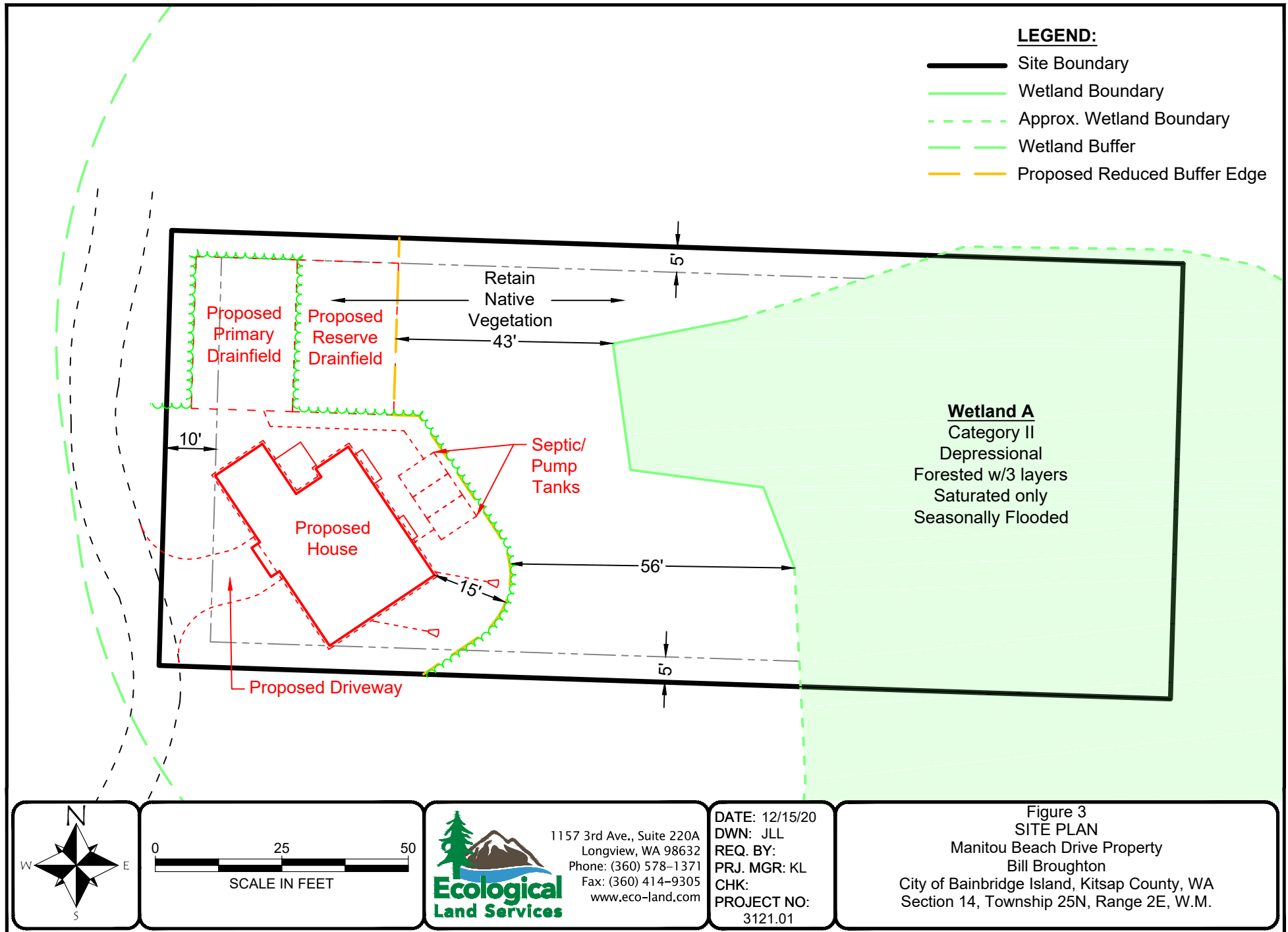
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SCALE IN FEET







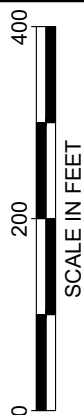
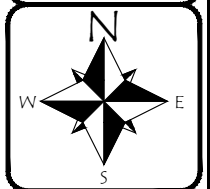


LEGEND:

- 15** Harstine gravelly ashy sandy loam, 6 to 15 percent slopes. Not hydric.

NOTE(S):

1. Map provided on-line by NRCS at web address:
<http://websoilsurvey.nrcs.usda.gov/app/>



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PROJECT NO:
3121.01

Figure 4
SOIL SURVEY MAP
Manitou Beach Drive Property
Bill Broughton
City of Bainbridge Island, Kitsap County, WA
Section 14, Township 25N, Range 2E, W.M.



No mapped wetlands indicated onsite by US Fish & Wildlife Service.

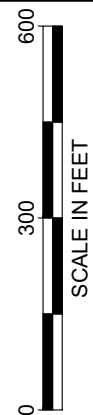
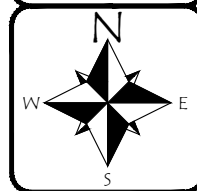
LEGEND:

-  Freshwater Emergent Wetland
-  Estuarine and Marine Wetland

PEM1C Palustrine, emergent, persistent, seasonally flooded.

NOTE(S):

1. Map provided on-line by US Fish & Wildlife Service at web address: <http://www.fws.gov/wetlands/data/index.html>

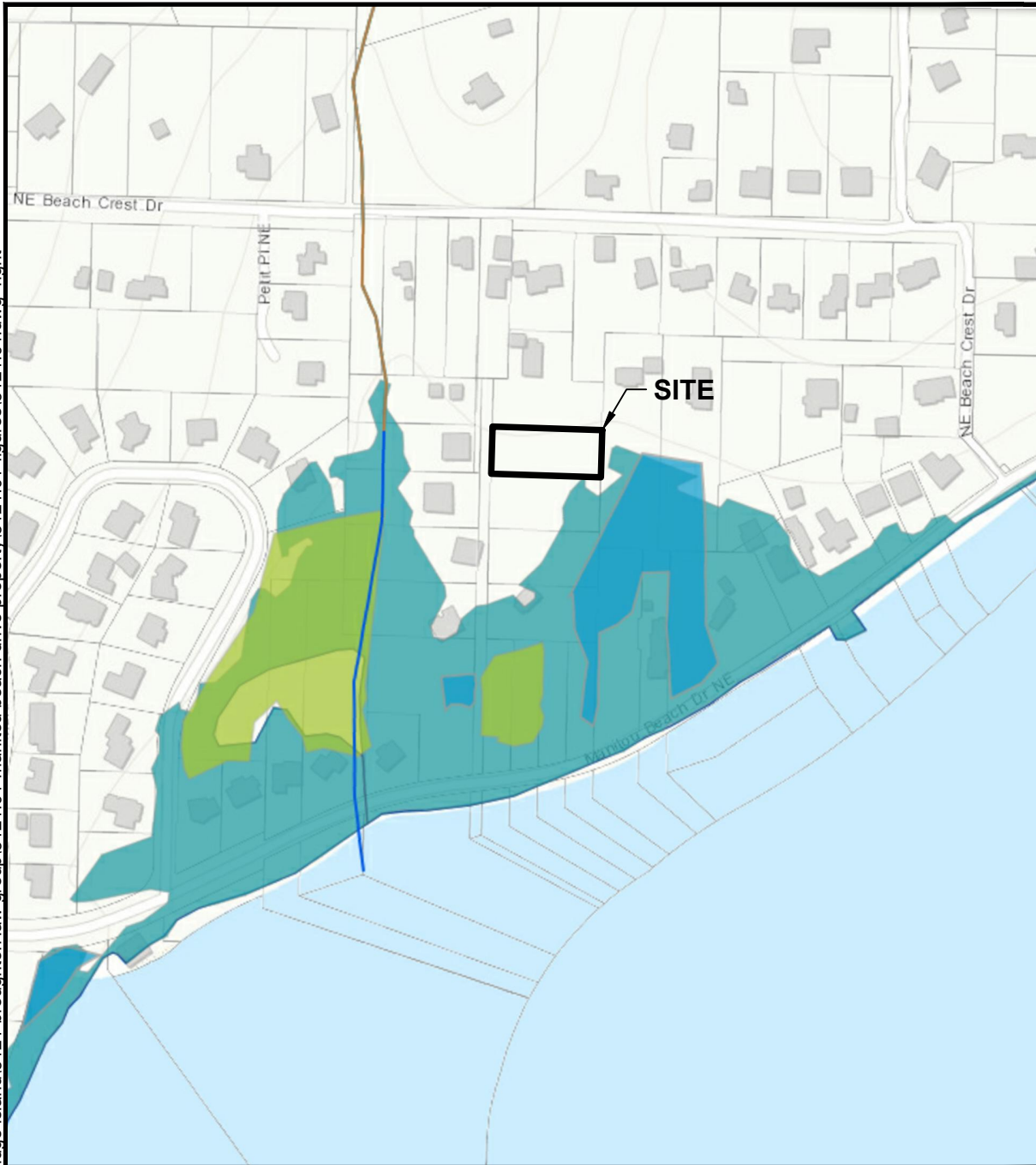


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Figure 5

NATIONAL WETLANDS INVENTORY MAP
Manitou Beach Drive Property
Bill Broughton
City of Bainbridge Island, Kitsap County, WA
Section 14, Township 25N, Range 2E, W.M.



LEGEND:

Wetlands

-  Delineated
-  No Delineation
-  Not a Wetland




Shoreline

-  Shoreline

Streams

-  Fish
-  Non-Fish Seasonal
-  Non-Fish Perennial
-  Shoreline
-  Other

FEMA Flood Hazard

-  A = Low Flood Risk
-  AE = High Flood Risk
-  VE = High Flood Risk

Kitsap County Parcels

-  Kitsap County Parcels

NOTE(S):

1. Map provided on-line by the City of Bainbridge Island at web address:
<https://cityofbi.maps.arcgis.com/home/index.html>

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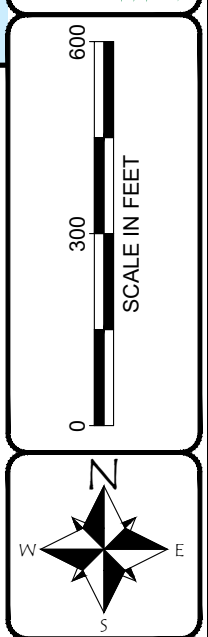
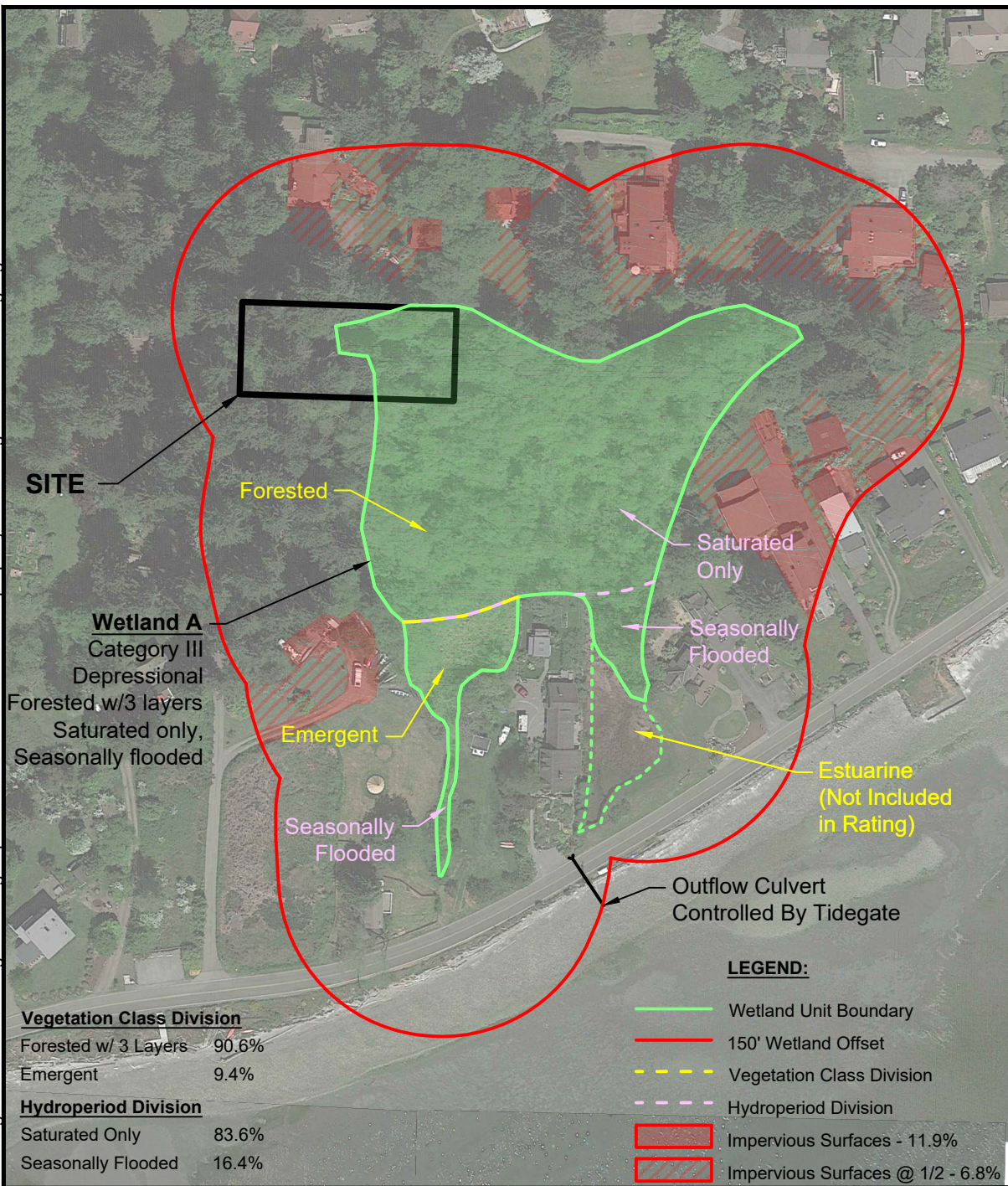


Figure 6
BAINBRIDGE ISLAND CRITICAL AREAS MAP
Manitou Beach Drive Property
Bill Broughton
City of Bainbridge Island, Kitsap County, WA
Section 14, Township 25N, Range 2E, W.M.

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Rating Question	Description	Answer - Wetland A
D 1.1, D 4.1	Location of Outlet	Wetland is a depression with constricted, permanently flowing outlet
D 1.3	Distribution of persistent plants	Wetland has persistent plants >1/2 the area
D. 1.4	Area of seasonally flooded	Area seasonally ponded >1/2 area of the wetland
D 2.2	Boundary of area w/in 150' of the wetland in land uses that generate pollutants	>10% of the area within 150' in land uses that generate pollutants
D 5.2	Boundary of area w/in 150' of the wetland in land uses that generate excess runoff	>10% of the area within 150' in land use that generate excess runoff
D 4.3	Contributing Basin-Contribution of wetland to storage in the watershed	Area of the basin is 10 to 100 times the area of the wetland
D 5.3	Contributing Basin covered in intensive land uses	>25% of the area of the basin covered with intensive land uses
H 1.1	Cowardin Plant Classes	Forested, Forested w/ 3 layers
H 1.2	Hydroperiods	Saturated only, Seasonally flooded
H 1.4	Interspersion of habitats	No interspersion of habitats

Figure 7

WETLAND RATING FIGURE-150' OFFSET

Manitou Beach Drive Property

Bill Broughton

City of Bainbridge Island, Kitsap County, WA

Section 14, Township 25N, Range 2E, W.M.

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Ecological Land Services

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SCALE IN FEET

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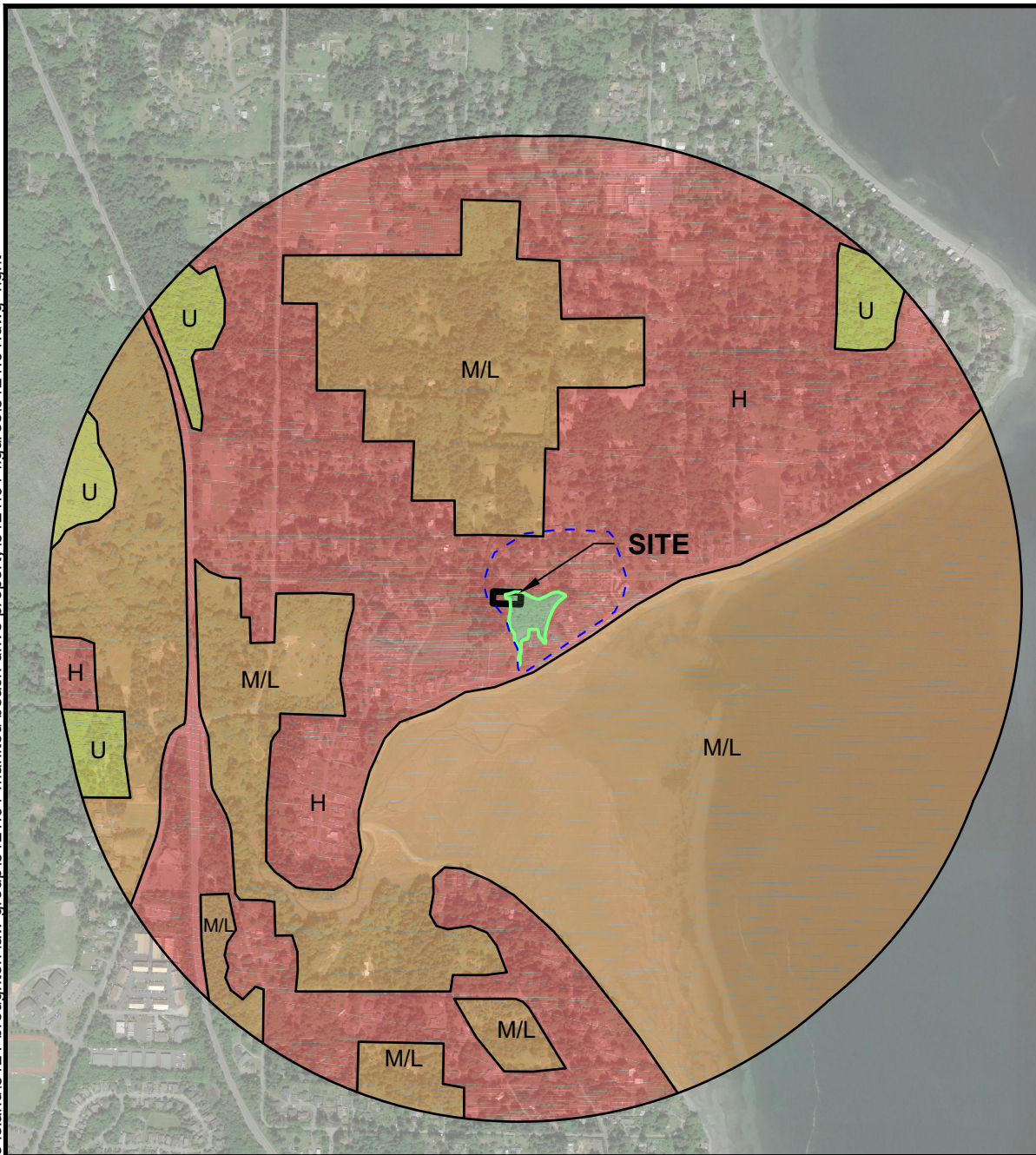
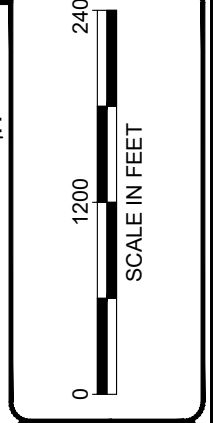


Figure 8
WETLAND RATING FIGURE-1 KM OFFSET
 Manitou Beach Drive Property
 Bill Broughton
 City of Bainbridge Island, Kitsap County, WA
 Section 14, Township 25N, Range 2E, W.M.

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LEGEND:

- Site Boundary
- Wetland Unit Boundary
- Contributing Basin
(7.4x area of wetland)

H2.1 Accessible Habitat

A-U	A-U (00.0%)
A-M/L	A-M/L (00.0%)

H2.2 Undisturbed Habitat

U	U (02.7%)
M/L	M/L (53.7%)

H2.3 Land Use Intensity

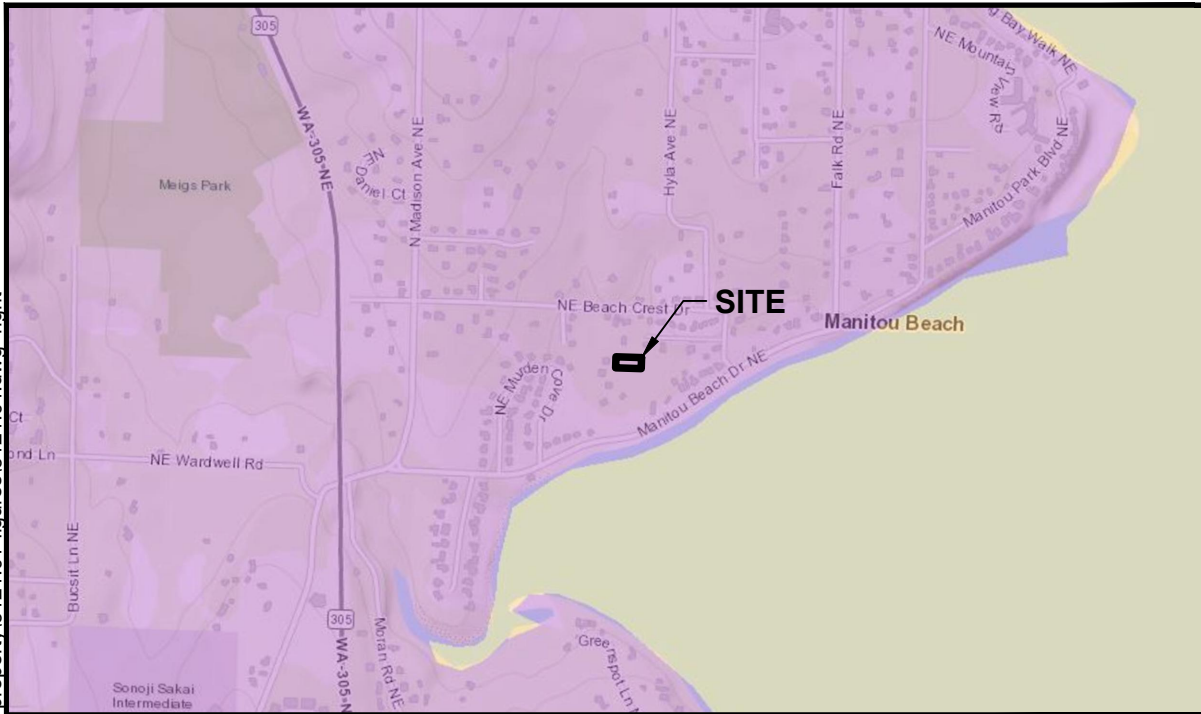
H	H (43.6%)
---	-----------

H 2.1. Accessible Habitat Equation

$$\% \text{ [A-U] habitat } \underline{00.0\%} + [(\% \text{ [A-M/L] intensity land uses})/2] \underline{00.0\%} = \underline{00.0\%}$$

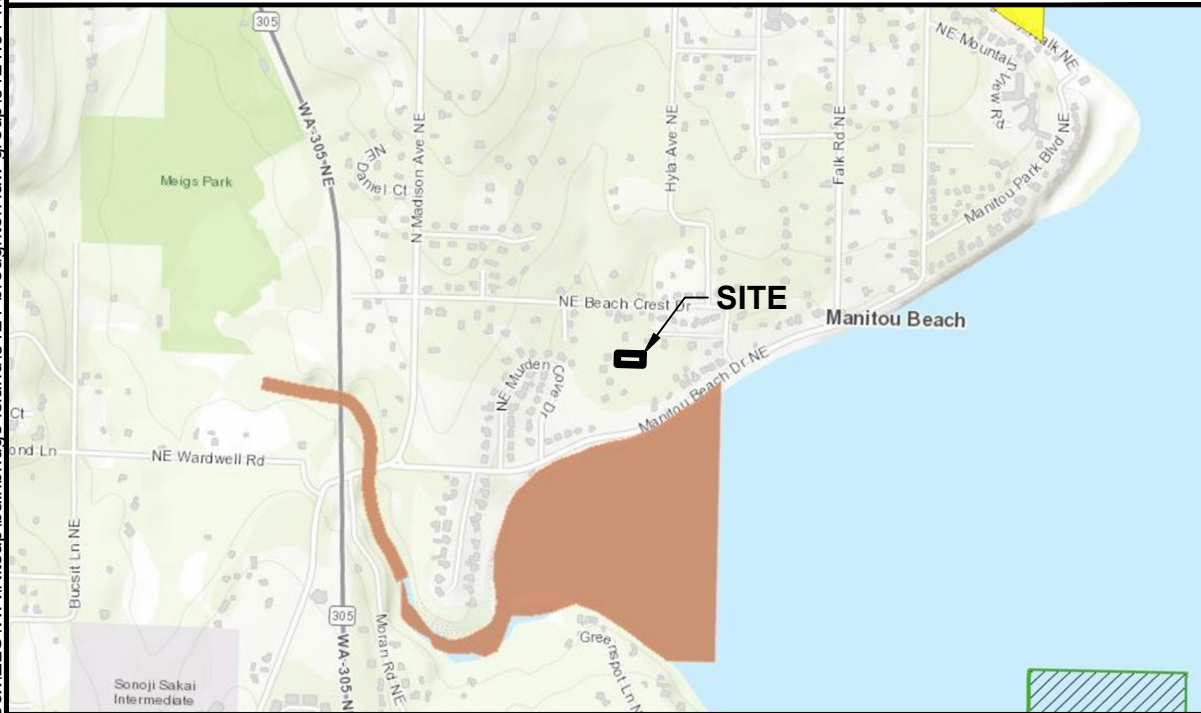
H 2.2. Total Undisturbed Habitat Equation

$$\% \text{ [A-U] } + \% \text{ [U] habitat } \underline{02.7\%} + [(\% \text{ [A-M/L] } + \% \text{ [M/L] land uses})/2] \underline{26.85\%} = \underline{29.55\%}$$



WQ Improvement Projects

- Approved
- In Development



Assessed Waters/Sediment

Water

- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment

- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

NOTE(S):

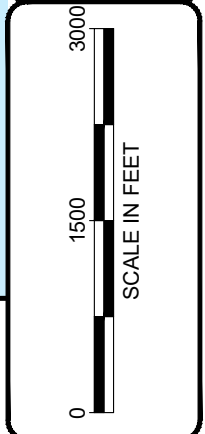
1. Map provided on-line by Washington State Department of Ecology at web address: <https://fortress.wa.gov/ecy/waterqualityatlas/map.aspx?>

Figure 9
WETLAND RATING FIGURE-303(D) AND TMDL MAPS
 Manitou Beach Drive Property
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 City of Bainbridge Island, Kitsap County, WA
 Section 14, Township 25N, Range 2E, W.M.

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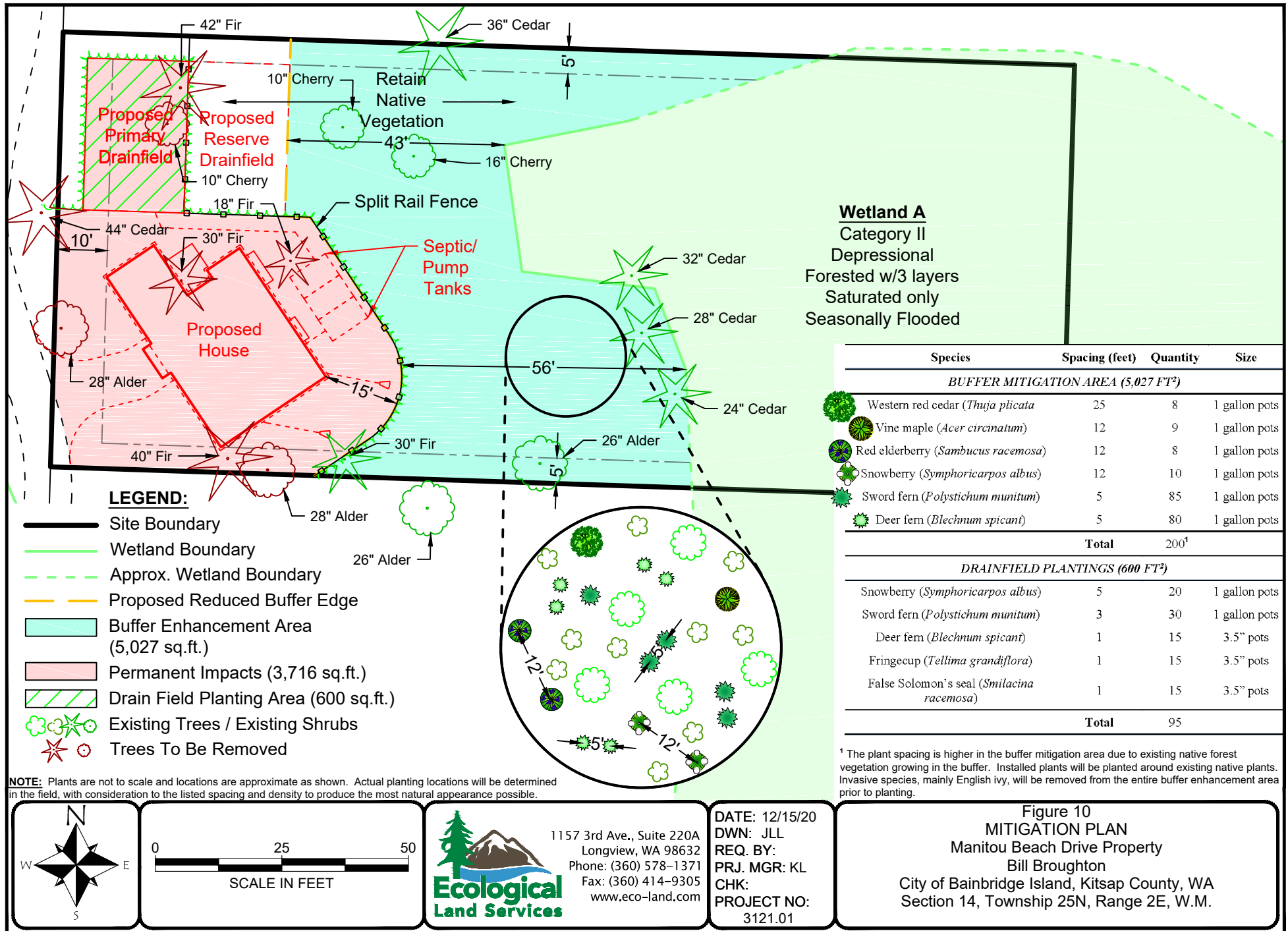




Photo 1 was taken from Wetland A looking north toward the wetland boundary. The flags for test plot 1 (in the foreground) and test plot 2 (in the background) can be seen in this photo.



Photo 2 was taken at Test Plot 1 and shows the soils. The soil profile met indicator A2: Histic Epipedon, because there was a top layer of organic soils underlain by mineral soils with a chroma less than one.



Photo 3 was taken from the same location as Photo 1 looking south into the wetland. This portion of Wetland A was dominated by Western red cedar and salmonberry.



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Photoplate 1 Site Photos

Project Name: Manitou Beach Drive Property
Client: Broughton Law Group
Bainbridge Island, Washington



Photo 4 was taken at Test Plot 2 and looks south toward the wetland from the upland.



Photo 5 shows the soils at Test Plot 2. These soils were medium brown and did not meet any hydric soil indicators.



Photo 6 shows vegetation in the upland consisting of English laurel, salmon-berry, and bracken fern. Douglas fir, western red cedar, sword fern, and red elderberry were also present throughout the upland.



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Photoplate 2 Site Photos

Project Name: Manitou Beach Drive Property
Client: Broughton Law Group
Bainbridge Island, Washington



Photo 7 shows the dominance by English ivy throughout the property. There is potential for enhancement within the buffer by removing this invasive species.



Photo 8 shows the soils at Test Plot 3. The soils in this area had a dark top layer underlain by medium brown mixed soils and was not hydric.



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DATE: 06/17/19
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PROJ.#: 3121.01

**Photoplate 3
Site Photos**

Project Name: Manitou Beach Drive Property
Client: Broughton Law Group
Bainbridge Island, Washington

APPENDIX A

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Manitou Beach Drive City/County: Bainbridge Island/Kitsap Sampling Date: 06-17-19
 Applicant/Owner: Broughton Law Group State: WA Sampling Point: TP-1
 Investigator(s): K. Lacey & J. Bartlett Section, Township, Range: S14, T25, R2E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3
 Subregion (LRR): MLRA2 Lat: 47.656258 Long: -122.514082° Datum: NAD83
 Soil Map Unit Name: 15 Harstine gravelly ashy sandy loam, 6 to 15 percent slopes NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: This 0.63-acre property is undeveloped and forested throughout. The topography slopes gradually from northwest to southeast. One wetland, Wetland A was identified on the eastern half of the property continuing offsite to the east and south. Test Plot 1 was conducted within the wetland near the southern property boundary along the wetland boundary.			

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30 ft diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Thuja plicata</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80</u> (A/B)
4. _____	_____	_____	_____	
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 20 ft diameter)				Prevalence Index worksheet:
1. <u>Rubus spectabilis</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	OBL species _____ x1 = _____
3. _____	_____	_____	_____	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		UPL species _____ x5 = _____
Herb Stratum (Plot size: 10 ft diameter)				Column Totals: _____ (A) _____ (B)
1. <u>Athyrium cyclosorum</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. <u>Rubus ursinus</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u>	= Total Cover		
Woody Vine Stratum (Plot size: 10 ft diameter)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>Hedera helix</u>	<u>35</u>	<u>yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
50% = <u>17.5</u> , 20% = <u>7</u>	<u>35</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>85</u>				

Remarks: Hydrophytic vegetation criteria is met because there is greater than 50 percent dominance by FAC species.

SOILSampling Point: TP-1**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	100	_____	_____	_____	_____	muck	_____
8-10	10YR 3/1	100	_____	_____	_____	_____	silt loam	_____
10-16	10YR 4/3	100	_____	_____	_____	_____	sa si loam	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix, RC=Root Channel**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input checked="" type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soils Present?Yes ☒ No ☐

Remarks: The soil profile meets hydric soil criteria for indicator A2: Histic Epipedon due to 8 inches of muck at the surface underlain by a layer of mineral soil with a chroma of 2 or less.

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input checked="" type="checkbox"/> High Water Table (A2) | (except MLRA 1, 2, 4A, and 4B) |
| <input checked="" type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water-Stained Leaves (B9) |
| (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Frost-Heave Hummocks (D7) |

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☒ No ☐ Depth (inches): 12Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface**Wetland Hydrology Present?** Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology criteria is met because there was saturation to the soil surface and a high water table present at 12 inches depth.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Manitou Beach Drive City/County: Bainbridge Island/Kitsap Sampling Date: 06-17-19
 Applicant/Owner: Broughton Law Group State: WA Sampling Point: TP-2
 Investigator(s): K. Lacey & J. Bartlett Section, Township, Range: S14, T25, R2E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0-3
 Subregion (LRR): MLRA2 Lat: 47.656229 Long: -122.514111 Datum: NAD83
 Soil Map Unit Name: 15 Harstine gravelly ashy sandy loam, 6 to 15 percent slopes NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: This 0.63-acre property is undeveloped and forested throughout. The topography slopes gradually from northwest to southeast. One wetland, Wetland A was identified on the eastern half of the property continuing offsite to the east and south. Test Plot 2 was conducted adjacent to Test Plot 1 just outside of the wetland boundary. This area was determined to be upland because wetland soils and hydrology were absent.			

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30 ft diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Thuja plicata</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57</u> (A/B)
4. _____	_____	_____	_____	
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 20 ft diameter)				Prevalence Index worksheet:
1. <u>Gaultheria shallon</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	
2. <u>Prunus laurocerasus</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	OBL species _____ x1 = _____
3. <u>Rubus spectabilis</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover		UPL species _____ x5 = _____
Herb Stratum (Plot size: 10 ft diameter)				Column Totals: _____ (A) _____ (B)
1. <u>Athyrium cyclosorum</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. <u>Dryopteris expansa</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u>	= Total Cover		
Woody Vine Stratum (Plot size: 10 ft diameter)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. <u>Hedera helix</u>	<u>5</u>	<u>yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>85</u>				

Remarks: Hydrophytic vegetation criteria is met because there is greater than 50 percent dominance by FAC species.

Project Site: Manitou Beach Drive

SOIL

Sampling Point: TP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	duff	100	_____	_____	_____	_____	duff	_____
10-16	10YR 4/3	50	_____	_____	_____	_____	silt loam	_____
_____	10YR 3/6	50	_____	_____	_____	_____	sa si loam	mixed matrix from 10 to 16 inches depth
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	sa - sandy	_____
_____	_____	_____	_____	_____	_____	_____	si - silt	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input checked="" type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present?

Yes ☐ No ☒

Remarks: The soils in this profile do not meet the definition of a depleted matrix or contain redoximorphic features and does not meet any of the hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water-Stained Leaves (B9) |
| (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Frost-Heave Hummocks (D7) |

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present?

Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology criteria is not met because there was no water or evidence of water present in this location.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Manitou Beach Drive City/County: Bainbridge Island/Kitsap Sampling Date: 06-17-19
 Applicant/Owner: Broughton Law Group State: WA Sampling Point: TP-3
 Investigator(s): K. Lacey & J. Bartlett Section, Township, Range: S14, T25, R2E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0-3
 Subregion (LRR): MLRA2 Lat: 47.656363 Long: -122.514281 Datum: NAD83
 Soil Map Unit Name: 15 Harstine gravelly ashy sandy loam, 6 to 15 percent slopes NWI classification: none
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: This 0.63-acre property is undeveloped and forested throughout. The topography slopes gradually from northwest to southeast. One wetland, Wetland A was identified on the eastern half of the property continuing offsite to the east and south. Test Plot 3 was conducted near the northern property boundary outside of Wetland A. This area was determined to be upland because the area lacked hydrophytic vegetation, hydric soils, and hydrology.		

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30 ft diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. <u>Prunus emarginata</u>	<u>25</u>	<u>yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17</u> (A/B)
4. _____	_____	_____	_____	
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: 20 ft diameter)				Prevalence Index worksheet:
1. <u>Rubus spectabilis</u>	<u>35</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Rubus armeniacus</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	OBL species _____ x1 = _____
3. _____	_____	_____	_____	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover		UPL species _____ x5 = _____
Herb Stratum (Plot size: 10 ft diameter)				Column Totals: _____ (A) _____ (B)
1. <u>Polystichum munitum</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	Prevalence Index = B/A = _____
2. <u>Rubus ursinus</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹ <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>20</u>	= Total Cover		Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Woody Vine Stratum (Plot size: 10 ft diameter)				
1. <u>Hedera helix</u>	<u>50</u>	<u>yes</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>80</u>				

Remarks: Hydrophytic vegetation criteria is not met because there is less than 50 percent dominance by FAC species.

SOIL

Sampling Point: TP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	100	_____	_____	_____	_____	sa silt loam	_____
6-16	10YR 4/4	50	_____	_____	_____	_____	gr sa loam	_____
_____	10YR 4/6	50	_____	_____	_____	_____	gr sa loam	mixed matrix from 6-16 inches depth
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	sa - sandy
_____	_____	_____	_____	_____	_____	_____	_____	gr - gravelly
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix, RC=Root Channel**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- | | |
|--|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input checked="" type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) |

Indicators for Problematic Hydric Soils³:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if present):**

Type: _____

Depth (inches): _____

Hydric Soils Present?Yes ☐ No ☒

Remarks: The soils in this profile do not meet the definition of a depleted matrix or contain redoximorphic features and does not meet any of the hydric soil indicators.

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Water-Stained Leaves (B9) |
| <input type="checkbox"/> High Water Table (A2) | (except MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|--|
| <input type="checkbox"/> Water-Stained Leaves (B9) |
| (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Raised Ant Mounds (D6) (LRR A) |
| <input type="checkbox"/> Frost-Heave Hummocks (D7) |

Field Observations:Surface Water Present? Yes ☐ No ☒ Depth (inches): _____Water Table Present? Yes ☐ No ☒ Depth (inches): _____Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____**Wetland Hydrology Present?**Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology criteria is not met because there was no water or evidence of water present in this location.

APPENDIX B

Wetland name or number: Wetland A-Broughton

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: June 17, 2019

Rated by: J. Bartlett & K. Lacey Trained by Ecology? Yes X No Date of training: 11/14 & 03/19

HGM Class used for rating: Depressional Wetland has multiple HGM classes? Y X N

NOTE: Form is not complete without the figures requested (figures can be combined).

Source of base aerial photo/map: Google Earth

OVERALL WETLAND CATEGORY II (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

 Category I – Total score = 23 – 27

X Category II – Total score = 20 – 22

 Category III – Total score = 16 – 19

 Category IV – Total score = 9 – 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
Circle the appropriate ratings										
Site Potential	H	M	L	H	M	L	H	M	L	
Landscape Potential	H	M	L	H	M	L	H	M	L	
Value	H	M	L	H	M	L	H	M	L	
Score Based on Ratings	8			7			6			21

Wetland name or number: Wetland A-Broughton

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	7
Hydroperiods	D 1.4, H 1.2	7
Location of outlet (<i>can be added to map of hydroperiods</i>)	D 1.1, D 4.1	7
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	D 2.2, D 5.2	7
Map of the contributing basin	D 4.3, D 5.3	8
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	8
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	9
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	9

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (<i>can be added to another figure</i>)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (<i>can be added to another figure</i>)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (<i>can be added to figure above</i>)	S 4.1	
Boundary of 150 ft buffer (<i>can be added to another figure</i>)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

☒ NO - go to 2

YES - the wetland class is **Tidal Fringe** - go to 1.1

- 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

☒ NO - go to 3

YES - The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

- ___ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
___ At least 30% of the open water area is deeper than 6.6 ft (2 m).

☒ NO - go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?

- ___ The wetland is on a slope (*slope can be very gradual*),
___ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
___ The water leaves the wetland **without being impounded**.

☒ NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

- ___ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
___ The overbank flooding occurs at least once every 2 years.

Wetland name or number: Wetland A-Broughton

NO – go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. **GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT** (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number: Wetland A-Broughton

DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	4
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > 1/10 of area points = 1 Wetland has persistent, ungrazed plants < 1/10 of area points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation: <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	0*
Total for D 1	9

Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source Yes = 1 No = 0	0
Total for D 2	3

Rating of Landscape Potential If score is: X 3 or 4 = H 1 or 2 = M 0 = L Record the rating on the first page

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No = 0	0
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)? Yes = 2 No = 0	2
Total for D 3	3

Rating of Value If score is: X 2-4 = H 1 = M 0 = L Record the rating on the first page

**the only seasonally flooded area is within the narrow emergent area at the south end of the depressional unit (adjacent to deRubertis property) and in the southeastern portion both of which make up about 7.2% or 0.13 acres of the wetland unit. This emergent area is regularly mowed.*

Wetland name or number: Wetland A-Broughton

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

- | | | |
|---|------------|----------|
| Wetland is a depression or flat depression with no surface water leaving it (no outlet) | points = 4 | 2 |
| Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet | points = 2 | |
| Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch | points = 1 | |
| Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing | points = 0 | |

D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.

- | | | |
|--|------------|----------|
| Marks of ponding are 3 ft or more above the surface or bottom of outlet | points = 7 | 3 |
| Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet | points = 5 | |
| Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet | points = 3 | |
| The wetland is a "headwater" wetland | points = 3 | |
| Wetland is flat but has small depressions on the surface that trap water | points = 1 | |
| Marks of ponding less than 0.5 ft (6 in) | points = 0 | |

D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.

- | | | |
|---|------------|----------|
| The area of the basin is less than 10 times the area of the unit | points = 5 | 5 |
| The area of the basin is 10 to 100 times the area of the unit | points = 3 | |
| The area of the basin is more than 100 times the area of the unit | points = 0 | |
| Entire wetland is in the Flats class | points = 5 | |

Total for D 4

Add the points in the boxes above

10

Rating of Site Potential If score is: 12-16 = H X 6-11 = M 0-5 = L

Record the rating on the first page

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0

1

D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0

1

D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0

1

Total for D 5

Add the points in the boxes above

3

Rating of Landscape Potential If score is: X 3 = H 1 or 2 = M 0 = L

Record the rating on the first page

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.

The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

- | | | |
|---|------------|----------|
| • Flooding occurs in a sub-basin that is immediately down-gradient of unit. | points = 2 | 1 |
| • Surface flooding problems are in a sub-basin farther down-gradient. | points = 1 | |
| Flooding from groundwater is an issue in the sub-basin. | points = 1 | |

The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why _____ points = 0

There are no problems with flooding downstream of the wetland. points = 0

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?

Yes = 2 No = 0

0

Total for D 6

Add the points in the boxes above

1

Rating of Value If score is: 2-4 = H X 1 = M 0 = L

Record the rating on the first page

Wetland name or number: Wetland A-Broughton

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

1
Emergent
9%

- ☐ Aquatic bed 4 structures or more: points = 4
☐ Emergent 3 structures: points = 2
☐ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1
☒ Forested (areas where trees have > 30% cover) 1 structure: points = 0

If the unit has a Forested class, check if:

- ☒ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

1

- ☐ Permanently flooded or inundated 4 or more types present: points = 3
☒ Seasonally flooded or inundated 3 types present: points = 2
☐ Occasionally flooded or inundated 2 types present: points = 1
☒ Saturated only 1 type present: points = 0
☐ Permanently flowing stream or river in, or adjacent to, the wetland
☐ Seasonally flowing stream in, or adjacent to, the wetland
☐ **Lake Fringe wetland** 2 points
☐ **Freshwater tidal wetland** 2 points

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft².

*Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

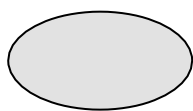
2

- If you counted: > 19 species points = 2
 5 - 19 species points = 1
 < 5 species points = 0

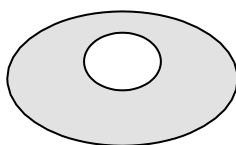
H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*

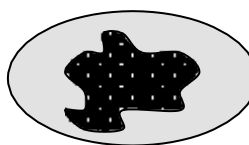
0*
There is one Cowardin forested vegetation class. The layers beneath do not represent a separate class, therefore, the interspersions is Low and there are 0 points.



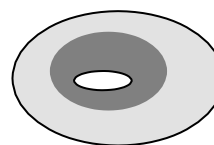
None = 0 points



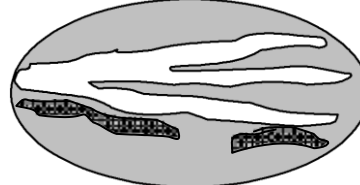
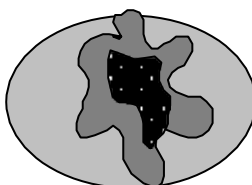
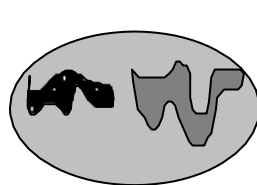
Low = 1 point



Moderate = 2 points



All three diagrams in this row are **HIGH = 3points**



Wetland name or number: Wetland A-Broughton

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i></p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (dbh > 4 in) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>)</p> <p><input checked="" type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (<i>see H 1.1 for list of strata</i>)</p>	4
<p>Total for H 1</p>	<p>Add the points in the boxes above</p> <p>8</p>

Rating of Site Potential If score is: 15-18 = H X 7-14 = M 0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?

<p>H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>).</p> <p><i>Calculate:</i> % undisturbed habitat <u>0</u> + [(% moderate and low intensity land uses)/2] <u>0</u> = <u>0</u> % If total accessible habitat is:</p> <p>> 1/3 (33.3%) of 1 km Polygon points = 3</p> <p>20-33% of 1 km Polygon points = 2</p> <p>10-19% of 1 km Polygon points = 1</p> <p>< 10% of 1 km Polygon points = 0</p>	0
<p>H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % undisturbed habitat <u>2.5</u> + [(% moderate and low intensity land uses)/2] <u>27.2</u> = <u>29.55</u> %</p> <p>Undisturbed habitat > 50% of Polygon points = 3</p> <p>Undisturbed habitat 10-50% and in 1-3 patches points = 2</p> <p>Undisturbed habitat 10-50% and > 3 patches points = 1</p> <p>Undisturbed habitat < 10% of 1 km Polygon points = 0</p>	1
<p>H 2.3. Land use intensity in 1 km Polygon: If</p> <p>> 50% of 1 km Polygon is high intensity land use points = (- 2)</p> <p>≤ 50% of 1 km Polygon is high intensity points = 0</p>	0
<p>Total for H 2</p>	<p>Add the points in the boxes above</p> <p>1</p>

Rating of Landscape Potential If score is: 4-6 = H X 1-3 = M < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.*

- Site meets ANY of the following criteria: points = 2
- ☐ It has 3 or more priority habitats within 100 m (see next page)
 - ☐ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)
 - ☐ It is mapped as a location for an individual WDFW priority species
 - ☐ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources
 - ☐ It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan
- Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1
- Site does not meet any of the criteria above points = 0

Rating of Value If score is: 2 = H X 1 = M 0 = L *Record the rating on the first page*

Wetland name or number: Wetland A-Broughton

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf> or access the list from here: <http://wdfw.wa.gov/conservation/phs/list/>)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: **NOTE:** *This question is independent of the land use between the wetland unit and the priority habitat.*

___ **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

___ **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

___ **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

___ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

___ **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

___ **Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

___ **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

___ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

___ **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page*).

___ **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

___ **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

___ **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

___ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number: Wetland A-Broughton

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt <div style="text-align: right;"> Yes – Go to SC 1.1 No = Not an estuarine wetland </div>	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? <div style="text-align: right;"> Yes = Category I No - Go to SC 1.2 </div>	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. <div style="text-align: right;"> Yes = Category I No = Category II </div>	Cat. I Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? <div style="text-align: right;"> Yes – Go to SC 2.2 No – Go to SC 2.3 </div> SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? <div style="text-align: right;"> Yes = Category I No = Not a WHCV </div> SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf <div style="text-align: right;"> Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV </div> SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? <div style="text-align: right;"> Yes = Category I No = Not a WHCV </div>	Cat. I
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES you will still need to rate the wetland based on its functions.</i> SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? <div style="text-align: right;"> Yes – Go to SC 3.3 No – Go to SC 3.2 </div> SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? <div style="text-align: right;"> Yes – Go to SC 3.3 No = Is not a bog </div> SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? <div style="text-align: right;"> Yes = Is a Category I bog No – Go to SC 3.4 </div> NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? <div style="text-align: right;"> Yes = Is a Category I bog No = Is not a bog </div>	Cat. I

Wetland name or number: Wetland A-Broughton

<p>SC 4.0. Forested Wetlands</p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i></p> <ul style="list-style-type: none"> — Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). <p>Yes = Category I No = Not a forested wetland for this section</p>	<p>Cat. I</p>
<p>SC 5.0. Wetlands in Coastal Lagoons</p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>) <p>Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon</p> <p>SC 5.1. Does the wetland meet all of the following three conditions?</p> <ul style="list-style-type: none"> — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland is larger than 1/10 ac (4350 ft²) <p>Yes = Category I No = Category II</p>	<p>Cat. I</p> <p>Cat. II</p>
<p>SC 6.0. Interdunal Wetlands</p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland based on its habitat functions.</i></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 <p>Yes – Go to SC 6.1 No = not an interdunal wetland for rating</p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2</p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3</p> <p>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV</p>	<p>Cat I</p> <p>Cat. II</p> <p>Cat. III</p> <p>Cat. IV</p>
<p>Category of wetland based on Special Characteristics</p> <p>If you answered No for all types, enter "Not Applicable" on Summary Form</p>	<p>N/A</p>

Wetland name or number: Wetland A-Broughton



Department of Public Works - Engineering

Memorandum

Date: November 23, 2020
To: Annie Hillier, Planner, PCD
From: Paul Nylund, P.E., Development Engineer, Public Works
Subject: PLN51687 – Manitou RUE/VAR PW-DE Recommended Conditions of Approval Memorandum

Project Description:

The proposal seeks a reasonable use exception (RUE) and minor variance (VAR) to construct a single-family residence (SFR) on a .39 acre lot that is burdened entirely by a delineated Category II wetland and associated buffer with no opportunity for administrative buffer reductions. The subject parcel is identified by tax parcel number 142502-0-040-2005 and is located north of Manitou Beach Drive in the City of Bainbridge Island.

Recommendation

I have completed a review of the above-referenced project materials received by the City on May 21, 2020. The reasonable use exception is recommended for **APPROVAL** based on the following findings pursuant to Bainbridge Island Municipal Code (BIMC) 16.20.080 and subject to the conditions that follow in addition to any other conditions imposed by the issued Building Permit.

1. The proposal is consistent with applicable regulations and standards as it pertains to surface stormwater drainage per BIMC 15.20 and 15.21.
2. The proposal protects the critical area functions and values consistent with the best available science as it pertains to the incorporation of low impact development (LID) principles for the purpose of handling of stormwater, retaining vegetation, and mimicking natural hydrology to the maximum extent feasible;
3. The site plan as submitted conforms to the City of Bainbridge Island Design and Construction Standards and Specifications, “the Standards” where applicable or unless otherwise noted.

Recommended Conditions of Approval:

1. All underground utilities (well water, septic transport, power, etc.) shall be located/routed to minimize site disturbances to the maximum extent feasible.

2. Use of soil sterilant to construct the driveway shall be strictly prohibited.
3. Areas outside the building footprint, driveway, septic components and associated drain field and any necessary construction setbacks shall be protected from soil stripping, stockpiling, and compaction by construction equipment through installation of resilient, high visibility clearing limits fencing or equivalent, subject to inspection by the City prior to clearing and construction.
4. Hardscaping shall be constructed of permeable materials or contain wide permeable jointing where feasible to allow infiltration or shallow subsurface filtration of surface stormwater. Building permit documentation shall include location and materials for proposed hard surface/hardscape and plans shall include construction details for permeable surfaces and subgrades.
5. In conjunction with BIMC 15.20 and 15.21 compliance, surface stormwater from the proposed structures and the developed driveway shall discharge and disperse at a location and in a manner consistent with BMP T5.10B – Downspout Dispersion Systems and BMP T5.12 – Sheet Flow Dispersion. Strong priority shall be given to diffuse flow methods (i.e. BMP C206: Level Spreader, pop-up emitters, diffuser tee or engineered equivalent) to minimize point discharges of surface stormwater into or towards the wetland on site.

Annie Hillier

To: Annie Hillier
Subject: Arborist Comments 51687 RUE
Attachments: 51687 prop corner2.jpg

From: Nick Snyder <nsnyder@bainbridgewa.gov>
Sent: Tuesday, December 22, 2020 12:14 PM
To: Annie Hillier <ahillier@bainbridgewa.gov>
Subject: Re: Arborist Comments 51687 RUE

After looking over the site I have a few comments about trees and tree preservation.

- The proposed location for the primary drain field is partially occupied by part of the access and driveway for properties further down the lane. This may require a redesign to some degree and that may precipitate further tree considerations not contained here. You can see the property corner by the rock at the bottom of the included picture.
- Depending on the specific septic design and final arrangement, switching the primary and reserve drainfields could help to retain the 42 inch fir and 10 inch cherry. Above ground, mound type systems are usually minimally invasive to structural roots since they do not require much below ground trenching. Typical trench style drainfields can cause significant damage to root systems during construction and if that is the design here swapping the fields would save the above ground portion of the tree but may still impact the tree negatively, without seeing the actual septic design its hard to say definitively, but retention of these two trees is possible.
- The 44 inch Cedar along the west line should be retained and have its root zone protected to the greatest extent possible during construction.
- The 28 inch Alder along the west line should be removed, the proposed driveway and the current structure of the tree are concerning for its long term health and safety
- The 18 inch fir is completely dead at this time
- The 30 inch fir will likely need to be removed for any development project
- The 40 inch fir and 28 inch alder on the south line could likely be preserved if the proposed residence were rotated or rearranged/resized to accommodate the root zones of the trees. As designed, preservation is possible but not recommended without ensuring a minimum of 10 feet radius from the base of the tree is set aside as a tree protection area for the entire project.

Let me know if you need more from me Annie

Nick Snyder
 City Arborist
 PN-7473A
 Office:206-780-3717
 Cell:206-798-4717



**CITY OF BAINBRIDGE ISLAND**

Department of Planning & Community Development

280 Madison Avenue North, Bainbridge Island, WA 98110

Phone: 206-842-2552 Email: pcd@bainbridgewa.govWebsite: www.bainbridgewa.govPortal: <https://ci-bainbridgeisland-wa.smartgovcommunity.com/portal>**LETTER OF TRANSMITTAL**

PROJECT NAME Manitou RUE (also see PLN51687 VAR)		ORIGINAL SUBMITTAL DATE 05/21/2020	TRANSMITTAL DATE 05/21/2020
PROJECT NUMBER PLN51687 RUE	SUFFIX RUE	PROJECT TYPE Reasonable Use Exception	
PROJECT STREET ADDRESS OR ACCESS STREET Manitou Beach Dr NE		TAX PARCEL NUMBER 14250230402005	
CITY PROJECT MANAGER ANNIE HILLIER			
PHONE (206) 780-3773	EMAIL ahillier@bainbridgewa.gov		
REVISION RECEIVED:			
PROJECT DESCRIPTION COVID-19- Electronic file only. Construction of a single family residence with a footprint of 1080 sq ft on a lot containing critical areas.			
REVIEW PACKET TO			
<input type="checkbox"/> HEALTH DISTRICT REVIEW - KITSAP PUBLIC HEALTH Please review electronic documents. Site plans found on pages 21 and 28 of Wetland Report. Thank you!		<input type="checkbox"/> FIRE DEPT REVIEW - JACKIE PURVIANCE	
<input type="checkbox"/> DEVELOPMENT ENGINEER - DEVELOPMENT ENGINEERING REVIEW QUEUE		<input type="checkbox"/> CRITICAL AREA REVIEW - ANNIE HILLIER	
<input type="checkbox"/> BUILDING REVIEW - TODD CUNNINGHAM			
<input type="checkbox"/> FISH & WILDLIFE			
Owner(s)		Contact(s) LINDA PADGETT PH: E-MAIL:	

TRANSMITTED DOCUMENTS



CITY OF BAINBRIDGE ISLAND

Department of Planning & Community Development

280 Madison Avenue North, Bainbridge Island, WA 98110

Phone: 206-842-2552 Email: pcd@bainbridgewa.gov

Website: www.bainbridgewa.gov

Portal: <https://ci-bainbridgeisland-wa.smartgovcommunity.com/portal>

DOCUMENT 1 MISCELLANEOUS	DOCUMENT 2 SAR LETTER	DOCUMENT 6 REPORT-WETLAND
DOCUMENT 4 REPORT-GEOTECHNICAL	DOCUMENT 5 DECISION CRITERIA	DOCUMENT 9 OWNER AGENT AGREEMENT
DOCUMENT 7 NARRATIVE	DOCUMENT 8 PREAPP LETTER	DOCUMENT 12 SITE PLAN
DOCUMENT 10 VICINITY MAP	DOCUMENT 11 APPLICATION	

COMMENTS DUE BY: 06/04/2020

COMMENTS ☐ No Comments ☒ See Attached Comments/Conditions

Signed: *Richard Bazzell*

Date: 8/14/20

Please Print Name: RICHARD BAZZELL

Annie Hillier

From: Richard Bazzell <Richard.Bazzell@kitsappublichealth.org>
Sent: Wednesday, December 23, 2020 6:27 AM
To: Annie Hillier
Subject: RE: PLN51697 RUE

CAUTION: This email originated from outside the City of Bainbridge Island organization. DO NOT click links or open attachments unless you recognize the sender and know the content is safe.

Hi Annie. It appears I missed the encroachment of the driveway in the primary drainfield area. There are no specific horizontal setbacks from drainfields (primary/reserve) to driveways. However, It is required that the responsible party protect the onsite sewage system, from use, or situations that may have an adverse impact on the system. This is not only limited to the installation of the driveway, but vehicular traffic, diversion of water, and any disruption to drainfield components and their soils.

From: Annie Hillier <ahillier@bainbridgewa.gov>
Sent: Monday, December 21, 2020 10:35 AM
To: Richard Bazzell <Richard.Bazzell@kitsappublichealth.org>
Subject: PLN51697 RUE

[CAUTION]: This email originated from outside Kitsap Public Health District. **Do not click links or open attachments** unless you are expecting this email. If you are unsure please contact IT.

Hi Richard,

Regarding the Manitou RUE project, I see the health review has been completed but I was hoping you could comment on the presence of a hard surface driveway in the immediate vicinity of the proposed primary drainfield. Is there an issue with this? I know you can't give an official determination at this time, but any comments that you have on this issue would be helpful. Can you please send those directly to me? Just let me know if you'd like to discuss at all.

Thank you,



Annie Hillier

City Planner

www.bainbridgewa.gov

[facebook.com/citybainbridgeisland/](https://www.facebook.com/citybainbridgeisland/)

206.780.3773 (office) 206.780.0955 (fax)

Due to the City's COVID-19 response, the Planning and Community Development Department (PCD) has modified its operations. Please see the PCD webpage (<https://www.bainbridgewa.gov/154/Planning-Community-Development>) for current information.