



**City of Bellevue
Development Services Department
Land Use Division Staff Report**

Proposal Name: Maus Conservation Short Plat

Proposal Address: 13819 SE 10th Street

Proposal Description: Approval of Preliminary Short Plat to subdivide three existing single family parcels into five parcels in the R-1.8 Zone. The site is encumbered with two areas regulated as Geologic Hazard Steep Slope Critical Areas. The project includes approval of a Critical Areas Land Use Permit to reduce the top-of-slope buffer from 50 feet to 15 feet through geotechnical analysis and slope vegetation/habitat enhancement (planting).

File Numbers: Preliminary Short Plat: 12-110357-LN
Critical Areas Land Use Permit: 12-113805-LO

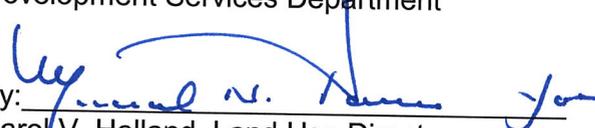
Applicant: Thom Gebhard, Murray Franklyn
Todd Oberg, The BlueLine Group (Applicant's Agent)

Decisions Included: Preliminary Short Plat (Process II)
Critical Areas Land Use Permit (Process II)

State Environmental Policy Act Threshold Determination: Exempt (WAC 197-11-800(1)(a))

Planner: David Pyle, Senior Land Use Planner

Department Decision(s): **Approval with Conditions**
Michael A. Brennan, Director
Development Services Department

By: 
Carol V. Helland, Land Use Director
Development Services Department

Application Date: March 27, 2012
Notice of Application: May 17, 2012
Decision Publication Date: August 16, 2012
Appeal Deadline: August 30, 2012

For information on how to appeal a project proposal, visit the Permit Center at City Hall or call 425-452-6800. Appeal of any Process II Administrative decision must be made by 5 p.m. on the date noted for appeal of the decision to the City of Bellevue City Clerks Office.

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- Attachment 1: Project Plan**
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I. PROPOSAL DESCRIPTION

A. Project Description

This is a proposal for Preliminary Short Plat to subdivide three existing single family parcels into five parcels in the R-1.8 Zone at 13819 SE 10th Street and install and associated roadway and utility improvements. The site is encumbered with two areas regulated as Geologic Hazard Steep Slope Critical Areas located at the southwest extreme of the property. The project includes approval of a Critical Areas Land Use Permit to reduce the top-of-slope buffer from 50 feet to 15 feet through geotechnical analysis and slope vegetation/habitat enhancement (planting). Proposed residential lots range in size between 17,989-28,563 square feet and an NGPA Tract is proposed to encompass the steep slope area and associated regulatory buffer. Two additional NGPE easement areas are also proposed to protect additional forested habitat area. A project site plan is included as **Attachment 1**.

B. Permits Required

- i. Conservation Short Subdivision - The subdivision of land into 9 or less lots is processed through a preliminary short plat in accordance with the City of Bellevue Land Use Code (LUC) section 20.45B. When a lot proposed for short subdivision is encumbered by critical areas as defined by LUC 20.45B.055, a conservation short subdivision is required. The project site meets the requirements of LUC 20.45B.055, is encumbered by geologic hazard steep slope critical areas, and provides habitat that supports species of local importance. A conservation short subdivision is required for this development proposal. The conservation short subdivision process is discussed in detail in Section III below.
- ii. Critical Areas Land Use Permit - To accommodate the proposed development and protect sensitive resources identified on the property as required by LUC 20.25H and LUC 20.45B, the applicant has requested approval of a Critical Areas Land Use Permit (CALUP) to reduce regulatory buffers applied to the top of geologic hazard steep slope critical areas. The CALUP process is discussed in detail in Section IV below.

II. SITE DESCRIPTION, ZONING, AND LAND USE CONTEXT

A. Site Description

- i. General – The project site is located at 13819 SE 10th Street in the NW quadrant of Section 3, Township 24 North, Range 5 East within the Southeast Bellevue Subarea of the City of Bellevue Comprehensive Plan. The site consists of three existing parcels totaling 2.8 acres of land. One single family residence built in 1949 and detached garage are located on parcel 2077700065, while the other two parcels 2077700055 and 2077700060 are undeveloped.

The site's existing vegetation is considered as "landscaped" and includes maintained lawn associated with the existing residence and areas of native tree vegetation on the balance of the site. The site has historically been cleared and

trees that currently occupy the site are second growth with an understory colonized by English ivy and blackberry. The topography on the site generally slopes to the west with grades between 3 and 14 percent with some steep slope areas located in the southwest corner of the site. The site is surrounded by residential properties and a cemetery to the south. An aerial photograph of the site is included as Figure 1 below.

Figure 1 – Site Aerial Photo



ii. **Site Access** – Site access is currently provided through SE 10th Street, an improved public road. To provide the access required for the development proposal, the applicant is proposing three individual driveways that provide direct access to SE 10th Street and one shared driveway that will serve two lots.

iii. **Critical Areas** – The project site is characterized by features and conditions that meet the definition of Critical Areas, as provided by LUC 20.25H.025, and is constrained by the protective buffers and structure setbacks identified in LUC 20.25H.035. Critical areas and buffers found on site are as follows:

1) Steep Slope Critical Areas (LUC 20.25H.120) – The project site includes slopes that meet the definition of Steep Slope Critical Areas. Steep Slope Critical Areas are protected by a top of slope 50 foot buffer and toe of slope structure

setback.

2) Habitat for Species of Local Importance (LUC 20.25H.150) – The site is characterized by a native forest and contains features known to support species of local importance.

A completed description of the site's critical areas resources is included in the project Critical Areas report available in the project file as **Attachment 2**. The project proposal includes a request to modify critical areas and critical areas buffers through the CALUP process. A description of the CALUP process is included in Section IV below.

B. Zoning

The property is zoned R-1.8, single-family residential. This is a proposal to develop the property with a new single family use and is allowed in the R-1.8 zoning as identified in LUC 20.10.

C. Land Use Context

The Comprehensive Plan Land Use Designation is Single-Family Low Density Residential. The proposed subdivision is consistent with single-family development and is allowed in the single-family comprehensive plan land use designation. The surrounding neighborhood context is low density single-family uses and a cemetery to the south.

D. Critical Areas Functions and Values

i. Geologic Hazard Areas

a. Geologic Hazard Area Functions:

Geologic hazards pose a threat to the health and safety of citizens when development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided.

Steep slopes may serve several other functions and possess other values for the City and its residents. Some of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provide a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

b. Existing Geologic Hazard Area Conditions:

The project site is generally characterized by slopes ranging from relatively

flat 3-14% slopes to slopes steeper than 40% and that are categorized as geologic hazard steep slope critical areas. The applicant is proposing to modify steep slope critical areas as discussed below. Most of the project site is forested with second growth forest and the site's areas of steep slope do also function as valuable habitat. Steep slope habitat values are discussed in this section below.

c. Impacts To Geologic Hazard Areas:

In support of the preferred lot layout, and to promote the preservation of a larger intact habitat unit, the applicant requested that the project geotechnical engineer consider impacts to slope stability and site erosivity if development were permitted to occur within areas classified by LUC 20.25H.120.A.2 as steep slope buffers. A geotechnical report was provided and includes development recommendations, including grading practices and site management BMPs. The report concludes that the delineated areas of protected slopes do not currently exhibit characteristics associated with instability and that the reduction of the top of slope buffer from 50 feet to 15 feet will not cause for additional instability.

A 20 foot rear building setback measured from the edge of the 15 buffer will ultimately provide for 35 foot structure setback from the steep slope area. The area outside of the proposed 15 foot buffers is relatively flat and will only be graded to provide a useable rear yard no structure will be placed closer than 35 feet from the top of slope. A detailed discussion of impacts and benefits to habitat resources is included below. A discussion on the proposal's consistency with performance standards is included in Section IV below. The project geotechnical report, including project recommendations, is included as **Attachment 3**.

ii. Habitat Associated With Species of Local Importance

a. Habitat Functions:

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005 Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a).

Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005).

Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

b. Existing Habitat Features:

To evaluate habitat conditions in the project area and vicinity, the applicant consulted with biologists who performed two field visits to the site on December 15, 2011 and May 29, 2012. During field visits consultant biologists surveyed the area to identify dominant species, forest maturity, concentrations of native and invasive plant populations, other habitat features (e.g., snags, logs), and habitat potential to support protected wildlife species and indications of use by these species. Information provided by WDFW's Priority Habitats and Species (PHS) Program (WDFW 2011) was also reviewed. Using field observations and background information collected, the City of Bellevue Urban Wildlife Habitat Functional Assessment was completed.

Species Observed

During the course of site visits, the presence of 23 bird species and the presence of one mammal were documented, though a greater number of animal species are likely to inhabit or otherwise use the site during different times of the year. Most of the species we observed were fairly common year-round resident or neotropical migrant species, though we observed a pileated woodpecker on the property, which is a State candidate species (WDFW 2008). Some animals, such as salamanders and small mammals, are likely to live on the site year-round, but are sedentary and/or secretive and are unlikely to be detected without specific studies.

Habitat Features

Snags provide important foraging habitat, as well as breeding and cover sites for a variety of vertebrate wildlife species, as well as invertebrates. Several snags were documented on the Maus Bellevue property, most of which were small (less than 10 inches diameter at breast height [dbh]) Scouler's willow (*Salix scouleriana*), though several were approximately 14 to 16 inches dbh. On several of these snags, large, oblong excavations that are indicative of pileated woodpecker foraging were observed. The habitat analysis concludes that it was difficult to ascertain if some of the snags on the property were used by pileated woodpeckers, as they were covered partially or entirely by English ivy.

Large (>12 inches diameter at the large end) down logs provide cover, as well as foraging, breeding, and cover sites for a variety of invertebrates, small mammals, and amphibians. Woody debris of varying sizes was present on the property, which probably provides habitat for these animals. However, few large logs were documented on the site, and in general the woody debris on the site is not of a general density as to be particularly significant. However, it should be noted that some logs could easily be missed on the site due to the dense English ivy and periwinkle that covers the ground throughout much of the property.

Tree cavities, significant stumps, or hollow trees on the site were not documented, and the forest on the property does not meet the WDFW (2008) definition of mature forest. Evidence of nesting within the site or vicinity by hawks, eagles, or great blue herons were not documented during field investigation. Site conditions were generally not conducive for large raptor nesting, as the majority of the trees onsite were not large enough and/or did not have branching patterns conducive to supporting large stick nests.

City of Bellevue Urban Wildlife Habitat Functional Assessment Score

The Bellevue Urban Wildlife Habitat Functional Assessment for the property (Appendix A) provided a score of 45 points. The City of Bellevue regulates wildlife through protection of habitat associated with “Species of Local Importance.” Of the species listed as Species of Local Importance in LUC 20.25H, one species was detected on the Maus site – the pileated woodpecker. Pileated woodpeckers are relatively large birds with large home ranges (typically 1 to 2 or more square miles) that are found throughout low- to mid-elevation forested areas of Washington State (Lewis and Azerrad 2004). Because of their large territory size and willingness to fly over large areas of non-habitat to reach foraging areas, pileated woodpecker foraging sign is commonly found on snags within the Puget Sound region, in some cases regardless of the size of a given forested area or perceived degree of isolation and habitat quality. Pileated woodpeckers appear to use the Maus Bellevue property for foraging, and snags large enough to potentially be used for roosting or nesting are generally absent. Due to the size of the site and the typically large territory size occupied by this species, the Maus Bellevue site is likely to represent a small portion of the overall territory of the birds that use the property.

c. Impacts to Habitat Features:

On the Maus Bellevue site, the majority of the property would be cleared under the proposed development, which would result in the loss of a small amount of pileated woodpecker foraging habitat and reduce the overall size of the forest patch that this species occupies locally. However, two forested areas would be preserved on the site – one in the southeastern portion of Tax Parcel No. 2077700065 (southeastern part of the site) and one in the southern portions of Tax Parcel Nos. 2077700055 and

2077700060 (southwestern part of the site), thus minimizing to some degree the overall impact of the proposed development on pileated woodpeckers.

Under the proposed development plan, the forested area in the southwestern portion of the site would still be contiguous with the Kelsey Creek Basin forest. The preserved forest in the southeastern part of the site, though it would have limited habitat connectivity to the Kelsey Creek Basin forest, would still easily be accessed by pileated woodpeckers. In addition to the preservation of these areas, the applicant has submitted a habitat enhancement plan which lists several actions to be taken that are intended to enhance habitat for pileated woodpecker. Proposed mitigation measures are listed in the project habitat report included as **Attachment 4**. The proposed habitat mitigation measures must be implemented with construction of the proposed short plat. See Section X of this staff report for associated conditions of approval.

III. CONSISTENCY WITH PRELIMINARY CONSERVATION SHORT SUBDIVISION REQUIREMENTS

A. Zoning District Dimensional Requirements

The site is located in the R-1.8 zoning district. The proposed short plat is in conformance with the general dimensional requirements of the zone as outlined below.

B. Density Calculation

LUC 20.25H.045.B requires that proposals to subdivide property within the Critical Areas Overlay District calculate allowed density (dwelling units per acre) after deducting the total critical area and critical area buffer. The maximum density allowed for a site in the Critical Areas Overlay District is equal to the number of dwelling units per acre as specified in LUC 20.20.010, times the buildable area in acres, plus the dwelling units per acre times the total area of critical area and critical area buffer in acres times the development factor derived from LUC 20.25H.045.D. To calculate density, the following calculation is required:

$[(DU/acre)(Buildable\ area\ in\ acres) + (DU/acre)(Total\ critical\ area\ and\ critical\ area\ buffer\ in\ acres)(Development\ factor)] = Maximum\ dwelling\ unit\ potential$

This is a proposal to divide three existing parcels equaling 2.8 acres in the R-1.8 zone (1.8 DU/Acre) into 5 lots. The site contains a total of .22 acres of critical area and critical area buffer and contains a total of 2.58 acres of buildable area. Critical areas were calculated through site survey that delineated steep slope critical areas and associated buffers. The applicant provided detailed information from the surveyor on the identification of the site's critical areas, which is available in the project file. The following is the density calculation for this property:

$[(1.8)(2.58)+(1.8)(.22)(.921)]=5$

The maximum number of dwelling units for this site is 5. The proposal to divide this property into 5 lots is in compliance with the requirements of the Critical Areas Overlay District.

C. Consistency with Land Use Code Requirements

| SIC INFORMATION | | | |
|---|--|--|--------------------|
| Zoning District | R-1.8 | | |
| Gross Site Area | 2.8 Acres | | |
| Critical Area and Buffer | .22 Acres | | |
| ITEM | REQ'D/ALLOWED | PROPOSED | MEETS REQ'D |
| Dwelling Units/Acre (LUC 20.25H.045) | 1.8 | 1.78 | Yes |
| Minimum Lot Area (LUC 20.45B.055.3) | 13,000 square feet | Minimum: 17,989 square feet Maximum: 28,358 square feet | Yes |
| Minimum Lot Width (LUC 20.20.010) | 90 feet | All lots over 90 feet | Yes |
| Minimum Lot Depth (LUC 20.20.010) | 150 feet | All lots over 150 feet | Yes |
| Building Setbacks Front Yard Rear Yard Min. Side Yard 2 Side Yard Access Easements | 20 feet 20 feet 5 feet 10 feet 10 feet | 20 feet 20 feet 5 feet 10 feet 10 feet | Yes |
| Tree Retention | 30% | Greater than 30% | Yes |
| Structural Lot Coverage [LUC 20.45B.055.b.3(5)] | Per calculation | Per calculation | Yes |
| Impervious Surface (Measured for whole lot—LUC 20.45B.055) | 50% | < 50% | Yes |
| Building Height | 35 feet (LUC 20.20.010) | Up to 35 Feet | Yes |
| Front Yard Greenscape | 50% (LUC 20.20.010) | Minimum 50% of required 25 foot front yard setback | Yes |

D. Consistency with Conservation Short Plat Requirements

The project site meets the requirements of LUC 20.45B.055, is encumbered by steep slope critical areas and provides habitat that supports species of local importance. A conservation short subdivision is required for this development proposal. Under this section, all critical areas and buffers must be placed in a tract, unless modified through a CALUP. To meet the Conservation Short Plat requirements the applicant is proposing modification of the steep slope critical area top of slope buffer through the CALUP process in conjunction with the dedication of 9,610 square feet of area as Native Growth Protection Area (NGPA) tract and additional area as native growth easement. To compensate for the dedication of this tract area, the applicant is eligible and required to follow modified site dimensional requirements as outlined in LUC 20.45B.055. Modified standards include a smaller lot size, reduced setbacks, and a lot coverage calculation. The applicant has provided documentation that the proposed lot meets these modified standards where allowed or required. A site plan demonstrating compliance with the Conservation Short Plat dimensional requirements is included as **Attachment 1**.

IV. CONSISTENCY WITH CRITICAL AREAS LAND USE PERMIT REQUIREMENTS

This proposal for conservation short subdivision includes a request for approval of a critical areas land use permit granting the reduction of steep slope critical area buffer area. A 20 foot rear building setback measured from the edge of the 15 buffer will ultimately provide for 35 foot structure setback from the steep slope area. The area outside of the proposed 15 foot buffers is relatively flat and will only be graded to provide a useable rear yard no structure will be placed closer than 35 feet from the top of slope.

A. Steep Slope Modification – Consistency With Performance Standards – LUC 20.25H.125, LUC 20.25H.140, and LUC 20.25H.145

Steep slope critical areas, buffers, and structure setbacks may be reduced or modified through a critical areas report as allowed by LUC 20.25H.125. The applicant has provide a geotechnical report prepared by a qualified professional that analyzes site conditions, addresses site stability, and provides construction recommendations intended to mitigate hazard. The project proposal has been evaluated for consistency with the performance standards intended to guide development on sites encumbered with steep slopes. The following design elements were considered in the determination that the project proposal is consistent with the required performance standards:

- The project design minimizes topographic modification.
- Retaining walls will not be allowed and significant grading is not required to facilitate the development.
- Short Plat conditions will restrict artificial grading and site development shall be in context with the surrounding topography.
- Native soils must be preserved and where necessary soil amendments will be required to preserve infiltration rates and reduce erosion.
- The southwest portion of the site is proposed as NGPA and NGPE.
- Approval conditions will require active geotechnical monitoring during the plat

infrastructure phase.

The project geotechnical report is available as **Attachment 3** to this staff report.

B. Habitat Modification – Consistency With Performance Standards – LUC 20.25H.160

Sites known to provide habitat supporting a species of local importance must be developed in compliance with a management plan intended to preserve existing habitat. The applicant has obtained the services of a qualified habitat biologist and has provided an acceptable habitat management plan that preserves existing habitat features and retains connectivity with the adjacent habitat features. The project habitat management plan is available as **Attachment 4** to this staff report.

V. PUBLIC NOTICE AND COMMENT

| | |
|---------------------------|----------------|
| Application Date: | March 27, 2012 |
| Public Notice (500 feet): | May 17, 2012 |
| Minimum Comment Period: | May 31, 2012 |

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on May 17, 2012. It was mailed to agencies, tribes, and property owners within 500 feet of the project site and a Notice of Application sign was placed at the project site. Public comment letters were received from two adjacent property owners and were primarily focused on the site's existing forested condition, tree retention requirements, surface water impacts, and the protection of geologic hazard steep slope critical areas. In response to these comments additional information was requested from the applicant related to stormwater, tree retention, habitat preservation, and slope stability.

Public comment letters received during review of the project are included as **Attachment 5**.

VI. SUMMARY OF TECHNICAL REVIEWS

A. Utilities Review

Utility review has been on a conceptual basis only and the site can be served with water, sewer and storm facilities. Water and sewer service will connect to the public water and sewer system within the Right of Way. The drainage plan approval for the site will require the development to comply with Minimum Requirements 1-9 of the Storm and Surface Water Codes and Standards. Drainage BMPs proposed for the site a detention tank and bioswale for the lot 1 and 2 and their shared driveway. Lots 1 and 2 shall also have a protected NGPA tract of .43ares total that crosses over the back south half of each lot and is not to be included in the total impervious coverage for the short plat. Lots 3, 4 and 5 have proposed to dispose of storm water onsite through the use of infiltration BMPs. Impervious area for each of these lots will be limited to less than what is allow under land use code. The onsite infiltration facilities proposed for lots 3, 4 and 5 shall be designed at the time of building permit submittal. Infiltration testing of the onsite soils for each lot shall be done under each building

permit to confirm infiltration rates reported at the time of preliminary short plat. See Section X of this report for Utilities Department related Conditions of Approval.

B. Fire Department Review

The City of Bellevue Fire Department has reviewed the proposal for compliance with the Fire development codes and standards. As proposed, the Fire Department has no concerns with the project. Any future proposed single family development must comply with the City's Fire Code requirements. See Section X of this report for Fire Department related Conditions of Approval.

C. Transportation Review:

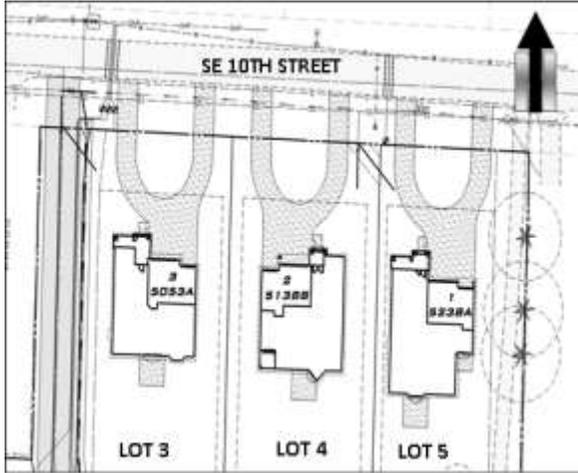
The Transportation Department has reviewed the plans submitted for the preliminary short plat and recommends approval. The final engineering plans must show all transportation-related improvements and must be consistent with the Transportation Development Code (BCC 14.60) and the Transportation Department Design Manual prior to approval of the plat infrastructure permit. Prior to final short plat approval, the developer must provide all transportation improvements at the developer's expense (BCC 14.60.110) or provide an acceptable financial assurance device equivalent to 150% of the cost of unfinished improvements.

Under BCC 22.16, payment of the transportation impact fee for each new home prior to building permit issuance will adequately mitigate off-site transportation impacts. The fee amount is subject to periodic revision by the City Council. Builders will pay the fee in effect at the time of building permit issuance.

Site Access

Access to Lots 1 and 2 will be provided by a joint use driveway connection directly to SE 10th Street. Access to lots 3, 4 and 5 will be provided by single family driveways connecting directly to SE 10th Street. The Transportation Department reserves the right amend the approved access configuration for the Maus Short Plat at its discretion. No other transportation-related connection to SE 10th Street is authorized. Any existing driveway to the project site must be abandoned appropriately. Street frontage improvements matching adjacent improvements must be provided at the location of the removed driveway. Additional street frontage improvements may include road shoulder enhancements (landscaping, pavement widening, etc.) and one street light near the joint use driveway.

All driveways will be designed to accommodate emergency vehicle access. Therefore minimum paved width for the joint use driveway is 16 feet and 10 feet for the driveways serving lots 3, 4, and 5. All driveway design parameters are subject to Fire Department review and approval. All driveways will connect to SE 10th Street via Transportation Design Manual drawing DEV-7B (Driveway Approach Where No Curb-Gutter Exists). The applicant has requested "circular" driveways for lots 3, 4 and 5 (see access configuration next page).



Circular Driveway Proposal

The Transportation Department has given preliminary approval of the circular driveways as shown above but reserves the right to require the City's standard single driveway approach design per the Transportation Design Manual drawing DEV-7B.

Pavement depth for the joint use driveway will be per Transportation Design Manual drawing DEV-8. Pavement depths for the driveways serving lots 3, 4 and 5 will be 3 inches of asphalt over 3 inches of CSTC over appropriate subgrade.

Street Frontage Improvements

Per city code section 14.60.110.E.1 the Maus Short Plat will not be required to install major street frontage improvements along SE 10th Street (concrete sidewalk, curb and gutter, etc.). Minor street improvements for this project will include driveway approach installation per DEV-7B, roadside improvements (landscaping, restoration of abandon driveways, etc.) and possibly a street light.

Prior to final short plat approval, the developer must provide all required transportation related improvements at the developer's expense (BCC 14.60.110) or provide an acceptable financial assurance device equivalent to 150% of the cost of unfinished frontage improvements. The final engineering plans showing those frontage improvements must be consistent with the Transportation Development Code (BCC 14.60) and the Transportation Department Design Manual prior to approval of the plat infrastructure (GE) permit.

Existing utilities in the city right-of-way fronting the site shall be relocated, and all new utility distribution and collection systems, including power, telephone, and TV cable, shall be installed underground.

Pavement Restoration

The City of Bellevue has established the Trench Restoration Program to provide developers with guidance as to the extent of resurfacing required when a street has been damaged by trenching or other activities. Under the Trench Restoration

Program, every public street in the City of Bellevue has been examined and placed in one of three categories based on the street's condition and the period of time since it was last resurfaced. These three categories are No Street Cuts Permitted, Overlay Required, and Standard Trench Restoration. Each category has different trench restoration requirements associated with it. SE 10th Street is classified by the City as a "No Cut" Street. Minimum pavement restoration for this classification is a grind and overlay extending 50 feet from each side of the street cut for the entire width of the street. Restoration limits may be amended at the discretion of the Transportation Department.

Sight Distance

The access design shall meet the sight distance requirements of BCC 14.60.240. Vegetation shall be trimmed as needed within the sight triangle.

Transportation Impacts and Mitigation

City staff has analyzed the potential short term operational impacts of this proposal in order to recommend mitigation if necessary. These impacts included traffic operations conditions during the a.m. and p.m. peak hours. Traffic impacts from the Maus Short Plat will be negligible due to its low trip generation and the fact that SE 10th Street is low volume, dead end residential street. See Section X of this report for Transportation Department related Conditions of Approval.

VII. CHANGES TO PROPOSAL DUE TO CITY REVIEW

Following staff review of project plans, revisions were requested of the applicant with the intention of achieving consistency with City codes. Revisions requested were as follows (see revisions letters in project file for complete list):

- Complete proper habitat study and where habitat is present provide appropriate management strategy.
- Set aside a sufficient area as NGPA and NGPE to preserve habitat features on site.
- Supplement the geotechnical findings to better support the proposed slope modifications.

VIII. DECISION CRITERIA

A. Preliminary Conservation Short Subdivision 20.45B.130.B (File 12-110357-LN)

The Director may approve or approve with modifications an application for a Preliminary Short Plat if:

- 1. The Preliminary Short Plat makes appropriate provisions for, but not limited to, the public health, safety and general welfare, for open spaces, drainage ways, streets, sidewalks, alleys, other public ways, water supplies, sanitary waste.**

Finding: City codes ensure public health, safety and general welfare through development code requirements. As discussed in this staff report, the proposed

short plat is consistent with City Codes and Standards. The site is proposed to be accessed from SE 10th Street. Existing public roads as well as public water and sewer facilities have been deemed adequate to serve the proposed development with the required improvements. See Section X of this report for related Conditions of Approval.

2. The public interest is served by the short subdivision.

Finding: The public interest is served by providing additional housing opportunities in accordance with the Comprehensive Plan while ensuring compliance with City codes and standards.

3. The preliminary short plat appropriately considers the physical characteristics of the proposed short subdivision site.

Finding: The preliminary short plat considers the physical characteristics of the site through site design minimizing impact to the site's valuable habitat resources and establishing a Native Growth Protection Area tract to protect sensitive features within the site.

4. The proposal complies with all applicable provisions of the Land Use Code (BCC Title 20), the Utility Code (BCC Title 24), and the City of Bellevue Development Standards.

Finding: As discussed in this staff report, the proposal complies with the Land Use Code requirements for R-1.8 zoning, the Land Use Code Critical Areas Overlay District, the Conservation Short Subdivision standards, the Utility Code, the Transportation Code, and other applicable City of Bellevue Development Standards.

5. The proposal is in accord with the Comprehensive Plan (BCC Title 21).

Finding: The site is located within the Southeast Bellevue Subarea of the Comprehensive Plan. The Comprehensive Plan specifies single-family R-1.8 development for this property. The proposal complies with applicable Comprehensive Plan policies city-wide and for this Subarea:

The single family homes are, by use type, compatible with surrounding neighborhoods. The proposal provides new housing as encouraged by the Comprehensive Plan (Policy LU-23). The proposed short plat provides housing for Bellevue's share of the regionally adopted demand forecasts for residential uses for the next 20 years (LU-3)

The proposal meets utility standards (UT-1), provides development through infill for under-utilized sites with adequate urban services (HO-12), and meets the Neighborhood Quality goal (Housing Element) by providing compatible housing (single family in single family district) and the protection of environmentally sensitive features (establishment of NGPA). By providing the preservation of

healthy significant existing trees on-site, the proposal will help maintain the landscape characteristics.

6. Each lot in the proposal can reasonably be developed in conformance with current Land Use Code requirements without requiring a variance.

Finding: Each lot can reasonably be developed to current R-1.8 zoning standards and dimensional standards for the R-1.8 land use district without requiring a variance. The proposed lots meet the minimum standards for lot width, lot depth, and lot area in the R-1.8 land use district (LUC 20.45B.055.B.3). This application includes a request to modify steep slope buffers to allow partial grading in the rear of proposed lots 1 and 2. There are no environmental factors which further inhibit the development of this property that would warrant a variance at a future date and all lots must be developed within the constraints under which they are created. See related conditions of approval in Section X.

7. All necessary utilities, streets or access, drainage and improvements are planned to accommodate the potential use of the entire property.

Finding: The Utilities and Transportation Departments have reviewed the preliminary short plat and determined that all necessary utilities, drainage, driveway access, and other required improvements are existing, planned or conditioned as part of this approval to accommodate the use of these lots. See conditions of approval in Section X.

B. Critical Areas Report Decision Criteria- General Criteria LUC 20.25H.255 (File 12-113805-LO)

The Director may approve, or approve with modifications, the proposed modification where the applicant demonstrates:

1. The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;

Finding: As discussed in this staff report, the applicant has provided a complete critical areas report prepared by a qualified professional that demonstrates that the proposal leads to levels of protection of critical area functions and values that area at least as protective as the regulations and standards of this code.

2. Adequate resources to ensure completion of any required mitigation and monitoring efforts;

Finding: As a condition of approval, the applicant is required to maintain the restored habitat NGPA area through five years of maintenance and monitoring and will be required to submit a security device (assignment of savings or bond) to ensure the plantings will be installed and maintained over the required five year period. See related conditions of approval in Section X.

3. The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and

Finding: As discussed in this staff report, the proposal complies with all of the applicable performance standards for steep slope critical areas and includes the dedication of a Native Growth Protection Area tract to maintain habitat connectivity across the adjacent habitat corridor, preserve sensitive features, and offset long term impacts.

4. The resulting development is compatible with other uses and development in the same land use district.

Finding: The proposed development is a low density single family subdivision on a parcel that is planned for low density residential use. The site is also surrounded by areas planned for low density single family uses. The proposed development is compatible with other uses and development in the same land use district.

C. Critical Areas Land Use Permit Decision Criteria 20.30P (File 12-113805-LO)

The Director may approve or approve with modifications an application for a critical areas land use permit if:

1. The proposal obtains all other permits required by the Land Use Code;

Finding: The proposed conservation short subdivision is required to obtain a plat infrastructure permit prior to the commencement of clearing activity. Other permits including Transportation, Utilities, and Building Permits are required for different phases of development. See related conditions of approval in Section X.

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: The project proposal has been evaluated for consistency with the performance standards intended to guide development on sites encumbered with steep slopes. Specific design elements related to steep slopes were considered during project review and are intended to minimize impact to the site's sensitive resources. A complete discussion of the project design as it relates to conservation of sensitive site features is included in Section II above. See related conditions of approval in Section X.

3. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: Section IV above discusses how the proposal incorporates the applicable performance standards. Future development of the short plat and single family homes will be required to maintain a minimum of 35 feet from the top of slope through the proposed 15 foot buffer and 20 foot structure setback.

4. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: The Utilities, Transportation, and Fire Departments have reviewed the proposal to ensure adequate public facilities and emergency resources are available to serve the project. The area is adequately serviced by public facilities. The proposal will not change the need for public facilities.

5. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: A conceptual mitigation and restoration plan consistent with the requirements of LUC 20.25H.210 has been prepared and submitted along with the project's critical areas report. The conceptual mitigation plan primarily relies upon the dedication of a Native Growth Protection Tract and a proposed habitat enhancement plan. See related conditions of approval in Section X.

6. The proposal complies with other applicable requirements of this code.

Finding: As discussed in Section III & IV of this report, the proposal complies with all other applicable requirements of the Land Use Code including, but not limited to, performance standards for development in geologic hazard areas, critical area report requirements, and Critical Areas Land Use Permit decision criteria.

IX. CONCLUSION AND DECISION

After conducting the various administrative reviews associated with this proposal, including applicable Land Use consistency, City Code, and standard compliance reviews, the Development Services Director does hereby **approve with conditions** this proposal for Preliminary Conservation Short Subdivision to divide three existing residential lots totaling 2.8 acres into 5 residential lots of approximately 23,000 square feet, creation of one NGPA tract, and dedication of two NGPE easements and does hereby **approve with conditions** the proposal for Critical Areas Land Use Permit to reduce the top of slope buffer on from 50 feet to 15 feet for the two steep slope areas located in the southwest corner of the site.

Note on expiration of Preliminary Short Plat Approval (12-110357-LN): A preliminary short subdivision approval automatically expires and is void if the applicant fails to file for approval of the final short plat within one year of the effective date of approval.

Note on expiration of Critical Areas Land Use Permit Approval (12-113805-LO):
 A Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Building Permit or other necessary development permit within one year of the effective date of the approval.

X. CONDITIONS OF APPROVAL

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

| <u>Applicable Codes and Ordinances</u> | <u>Contact Person</u> | <u>Phone</u> |
|--|-----------------------|--------------|
| Clearing and Grading Code – BCC 23.76 | Janney Gwo | 425-452-6190 |
| Construction Codes – BCC Title 23 | Building Division | 425-452-6864 |
| Fire Code – BCC 23.11 | Kevin Carolan | 425-452-7832 |
| Land Use Code – BCC Title 20 | David Pyle | 425-452-2973 |
| Noise Control – BCC 9.18 | David Pyle | 425-452-2973 |
| Trans. Development. Code – BCC 14.60 | Ray Godinez | 425-452-7915 |
| Traffic Standards Code – BCC 14.10 | Ray Godinez | 425-452-7915 |
| Right-of-Way Use Code – BCC 14.30 | Tim Stever | 425-452-4294 |
| Utility Code – BCC Title 24 | Mark Dewey | 425-452-6179 |

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

A. GENERAL CONDITIONS

1. VARIANCE RESTRICTION

Approval by the City of this short plat is a determination that each lot in the short plat can be reasonably developed in conformance with the Land Use Code requirements in effect at the time of preliminary short plat approval without requiring a variance.

AUTHORITY: Land Use Code 20.45B.130.A.6

REVIEWER: David Pyle, Development Services Department

2. NOISE – CONSTRUCTION HOURS

Construction will be subject to normal operation hours of 7 a.m. to 6 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Proximity to existing residential uses will be given special consideration. Upon written request to DSD, work hours may be extended to 10:00 p.m. if the criteria for extension of work hours as stated in BCC 9.18 can be met and the appropriate mitigation employed.

AUTHORITY: Bellevue City Code 9.18

REVIEWER: David Pyle, Development Services Department

3. UTILITIES DEPARTMENT APPROVAL - PRELIMINARY DESIGN, UTILITY CODES, AND ENGINEERING STANDARDS

Utility review has been completed on the preliminary information submitted at the time of this application and it appears from the information submitted that the short plat is feasible. The review of this application has no implied approvals for water, sewer and storm drainage components of the project and final plan approval will occur under a Utility Extension Agreement Permit. Final civil engineering may require changes to the site layout to accommodate the utilities if field conditions are different from what was shown under the preliminary short plat.

Private sewer easements will be required between lots 4 and 5 1, 2 and 3. Joint use language shall be included in the easement language recorded on the face of the final short plat.

A private drainage easement shall be shown on the face of the final short plat for the drainage tank and bioswale and shall include joint use maintenance and repair language between lots 1-5.

The preliminary short plat drainage design is based on a specific amount of impervious surface that differs from what is allowed under land use code. Current Land Use code allows 55% to impervious lot coverage. The applicant has proposed to limit the amount of impervious surface per lot recorded under the final short plat instead of modeling the drainage system of 55% lot coverage. The following note will be required on the face of the final short plat:

Maximum Impervious Coverage Note

The proposed storm drainage design assumes impervious lot coverage which are less than the maximum allowed per the land use code. The combined maximum impervious coverage for lots 1 and 2 is .37 acre. The combined maximum impervious coverage for lots 3 through 5 is .41 acres. The impervious surface square footage per lot listed below cannot be exceeded without additional storm water modeling being performed by a licensed civil engineer. The design must comply with City of Bellevue Surface Water Engineering Standards.

Lot 1: 5,500 square feet

Lot 2: 10,477 square feet (this lot includes shared driveway)

Lot 3: 5,865 square feet

Lot 4: 5,865 square feet

Lot 5: 5,970 square feet

AUTHORITY: Bellevue City Code Title 24.02, 24.04, 24.06

REVIEWER: Mark Dewey, Utilities Department

4. IMPERVIOUS SURFACE COVERAGE REQUIREMENTS

Impervious surface coverage shall be divided across the development area and shall be governed by the limits established by LUC 20.45B.050. Allowed maximum impervious surface coverage for each lot shall be clearly labeled on

the final short plat mylar.

AUTHORITY: Land Use Code Section 20.45B.055

REVIEWER: David Pyle, Development Services Department

5. LOT COVERAGE REQUIREMENTS

Lot coverage shall be governed by the lot coverage calculation included under LUC 20.45B.050. Allowed maximum structural lot coverage for each lot shall be clearly labeled on the final short plat mylar.

AUTHORITY: Land Use Code Sections 20.20.010 and 20.45B.055

REVIEWER: David Pyle, Development Services Department

6. DESIGN CHANGES

Any changes to the development plans shall be submitted as a revision to the applicable permit or approval and shall be reviewed by the City for consistency with the original approval.

AUTHORITY: 20.45B.240

REVIEWER: David Pyle, Development Services Department

7. HABITAT PROTECTION – NGPA TRACT REQUIRED – NGPE REQUIRED

The areas identified in the project critical areas reports and draft site plans as NGPA and NGPE shall be dedicated as a Native Growth Protection Area and Native Growth Protection Easement. The area dedicated as Native Growth Protection Area shall be marked as “NGPA” and placed in a separate tract to be held in common ownership by all of the lots in the subdivision. The area dedicated as Native Growth Protection Easement shall be marked as “NGPE” and placed in a protective easement recorded with the short plat mylar.

AUTHORITY: Land Use Code Section 20.45B.055

REVIEWER: David Pyle, Development Services Department

8. SURVEY REQUIRED - NGPA/NGPE BOUNDARY MARKING

Prior to commencement of any clearing activity the applicant shall perform a field survey of property boundaries completed by a Washington State Licensed Surveyor. The boundary of the NGPA and NGPE shall be identified and field flagged. Field flags shall be maintained for the duration of the plat development.

AUTHORITY: LUC 20.25H.030

REVIEWER: David Pyle, Development Services Department

9. NGPA/NGPE PROTECTION

To mitigate adverse impacts to the NGPA and NGPE during all phases of construction, the applicant must comply with the following:

- a. Clearing limits shall be established identifying the edge of the NGPA or

NGPE, (whichever is greater). A six-foot chain link fence with driven posts, or an approved alternative, shall be installed at the clearing limits (outside of the drip lines of retained trees within the NGPA/NGPE) prior to initiation of any clearing and grading at any phase of construction.

- b. No excavation or clearing shall be performed within drip lines trees located within the NGPA/NGPE, except as specifically approved on plans. All such work shall be done by hand to avoid damage to roots and shall be done under the supervision of an arborist approved by the City.
- c. Protection must also be provided for any trees on adjacent properties. Protection shall be provided around the portion of the drip lines that overhang the proposal property.

AUTHORITY: Bellevue City Code 23.76.060

REVIEWER: David Pyle, Development Services Department

10. SURFACE WATER QUALITY

Adjacent and downstream properties, storm drain inlets and the downstream natural and built drainage system shall be protected from sediment deposition using BMPs described in the clearing and grading development standards. If protection is inadequate and deposition occurs on adjoining property or public right-of-way or the drainage system, the permittee shall immediately remove the deposited sediment and restore the affected area to the original conditions.

Authority: Bellevue City Code 23.76.090

Reviewer: David Pyle, Development Services Department

B. PRIOR TO ISSUANCE OF ANY PLAT ENGINEERING/CLEAR AND GRADE PERMIT

1. RIGHT OF WAY USE PERMIT

The applicant is required to apply for a Right of Way Use Permit before the issuance of any clearing and grading, building, foundation, or demolition permit. In some cases, more than one Right of Way Use Permit may be required, such as one for hauling and one for construction work within the right of way. A Right of Way Use Permit regulates activity within the city right of way, including but not limited to the following:

- a. Designated truck hauling routes.
- b. Truck loading and unloading activities.
- c. Hours of construction and hauling.
- d. Continuity of pedestrian facilities.
- e. Temporary traffic control and pedestrian detour routing for construction activities.
- f. Street sweeping and maintenance during excavation and construction.
- g. Location of construction fences.

- h. Parking for construction workers.
- i. Construction vehicles, equipment, and materials in the right of way.
- j. All other construction activities as they affect the public street system.

In addition, the applicant shall submit for review and approval a plan for providing pedestrian access during construction of this project. Access shall be provided at all times during the construction process, except when specific construction activities such as shoring, foundation work, and construction of frontage improvements prevents access. General materials storage and contractor convenience are not reasons for preventing access.

AUTHORITY: Bellevue City Code 14.30

REVIEWER: Tim Stever Transportation Department (425) 452-4294

2. OFF-STREET PARKING

The applicant must secure sufficient off-street parking for construction workers, equipment, and materials storage before the issuance of a clearing and grading, building, foundation, or demolition permit.

AUTHORITY: Bellevue City Code 14.30

REVIEWER: Tim Stever Transportation Department (425) 452-4294

3. ENGINEERING PLANS

A site (civil engineering) plan produced by a qualified engineer must be approved by the City prior to clear and grading permit approval. The design of all street frontage improvements must be in conformance with the requirements of the Americans with Disabilities Act, the Transportation Development Code, and the provisions of the Transportation Department Design Manual. The engineering plans must correctly show all transportation-related engineering details, including but not limited to, the design of the private road or shared driveway, the connections to SE 10th Street, pavement restoration in SE 10th Street, mailbox location, and sight distance. Appropriate standard drawings from the Transportation Department Design Manual must be included in the engineering plans.

Specific requirements are detailed below:

a) Site Specific Items:

- i) Driveway approaches per DEV-7B for lots 3, 4, and 5 connecting to SE 10th Street.
- ii) Driveway approach per DEV-7B connecting a joint use driveway for lots 1 and 2 to SE 10th Street.
- iii) Roadside improvements along SE 10th Street (landscaping, gravel, asphalt, etc.)
- iv) Street light (this requirement may be waived by the Transportation Department).

- v) Replacement of existing driveway to the site with landscaping.
- vi) Street / Address signing for the short plat (this requirement may be waived by the Transportation Department).
- vii) Pavement restoration on SE 10th Street (grind and overlay extending 50 feet from each side of the street cut for the full width of the street).

b) Miscellaneous:

- Landings on sloping approaches are not to exceed a 10% slope for a distance of 20 feet approaching the back edge of sidewalks. Driveway grades must be designed to prevent vehicles from bottoming out due to abrupt changes in grade.
- The maximum cross grade of a street at the street end shall be 8%.
- Vehicle and pedestrian sight distance must be provided per BCC 14.60.240 and 14.60.241.

AUTHORITY: Bellevue City Code 14.60; Transportation Department Design Manual; and Transportation Department Design Manual Standard Drawings DEV-7B, DEV-8.

REVIEWER: Ray Godinez Transportation Department (425) 452-7915

4. SIGHT DISTANCE

If necessary to meet the sight distance requirements of BCC 14.60.240 and standard drawing TE-1, existing vegetation near all access points on SE 10th Street must be trimmed. Ground vegetation within the sight triangle must be trimmed to no more than 2.5 feet above a line drawn from pavement level to pavement level. Trees within the sight triangle must be limbed up to a height of 7.5 feet above a line drawn from pavement level to pavement level. A description of any required vegetation trimming must be shown on a sheet of the clearing and grading plan set.

AUTHORITY: Bellevue City Code 14.60.240

REVIEWER: Ray Godinez Transportation Department (425) 452-7915

5. PAVEMENT RESTORATION

The city's pavement manager has determined that this segment of SE 10th Street will require a full grind and overlay trench restoration for any utility connections or other digging in the street surface. Minimum pavement restoration limits will be 50 feet from each side of the street cut for the full width of the street. The Transportation Department may amend the restoration limits. Trench restoration must meet the requirements of Section 21 of the Design Manual and standard drawings ROW-1 through ROW-5. Exact copies of the appropriate trench restoration drawing(s) must be included in the final engineering plans.

AUTHORITY: Bellevue City Code 14.60.250 and Design Manual Design Standard # 21

REVIEWER: Tim Stever, Transportation Department (425) 452-4294

6. SEASONAL CLEARING AND GRADING RESTRICTIONS

The clearing & grading code defines the rainy season as November 1st through April 30th. The Development Services Department may grant approval to initiate or continue clearing or grading activity during the rainy season. Any approval will be based on site and project conditions, extent and quality of the erosion and sedimentation control, and the project's track record at controlling erosion and sedimentation.

AUTHORITY: BCC 23.76

REVIEWER: David Pyle, Development Services Department

7. REVISED GEOTECH REPORT

Prior to issuance of plat infrastructure and clearing and grading permits the applicant shall submit a revised geotechnical report that analyzes the final grading plan for consistency with preliminary geotechnical recommendations and makes additional recommendations to ensure slope stability is maintained.

AUTHORITY: BCC 23.76

REVIEWER: David Pyle, Development Services Department

8. REVISED CLEARING AND GRADING PLANS

Prior to issuance of plat infrastructure and clearing and grading permits the applicant shall submit a revised site development plan that clearly identifies areas to be cleared and the boundary of the NGPA/NGPE. Revised plans must demonstrate compliance with the Clearing and Grading Code and shall include a Construction Stormwater Pollution Prevention Plan (CSWPPP).

AUTHORITY: BCC 23.76

REVIEWER: David Pyle, Development Services Department

9. HABITAT IMPROVEMENT PLAN

Prior to issuance of plat infrastructure and clearing and grading permits the applicant shall submit a final habitat improvement plan, including construction implementation plans and maintenance and monitoring plans consistent with the conceptual mitigation plan included in the project habitat analysis. The restoration, maintenance, and monitoring plan shall include:

- a. The goals and objectives of the restoration proposed, based on replacing or restoring the critical area and critical area buffer functions and values impacted by the proposal.
- b. Measurable specific criteria for each year of the required monitoring period that evaluate whether or not the goals and objectives of the restoration or restoration project have been successfully attained. The monitoring period shall not be less than five years.

- c. Written specifications and descriptions of the restoration proposed.
- d. A plan for monitoring construction of the restoration project and for assessing a completed project.
- e. The potential courses of action and any corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.
- f. At a minimum, the restoration plan must require no less than three entries per year for maintenance activities for the full five years of maintenance to suppress invasive plants.
- g. A requirement that monitoring reports be submitted annually for a period of five years at the end of each growing season before the last day of the calendar year.

The following habitat improvement measures shall be implemented to provide compensation for the anticipated loss of potentially usable snags and foraging habitat for pileated woodpeckers as well as improve overall wildlife habitat of the retained forest habitat:

- a. All standing live trees and snags within the two retained open space areas, with evidence of use by woodpeckers, will be retained (Figure 2). We recognize that highly decomposed trees and snags may present a possible safety hazard and may therefore need to be removed. If any of these or other trees and snags greater than 10 inches dbh are required to be felled for safety reasons within retained forest areas, they would be cut to a height of 15 to 20 feet and retained, where feasible and given safety considerations. In instances where tree trunks may be retained in this manner, the remainder of the tree would be dropped and left in place in the retention areas to provide downed logs which may be used by foraging woodpeckers. Large limbs may be removed from these trees if necessary due to space availability.
- b. In order to compensate for loss of snags as potential foraging habitat the creation of 6 snags from existing live trees within the retained open space areas, provided that the minimum number of live trees required under the City of Bellevue's tree retention code can be retained as well within the open space areas. We do not recommend "planting" snags from trees removed from the site, as this may unnecessarily disturb and damage existing vegetation and soils within the retained areas, particularly the sloped areas. Existing trees should be cut to a height of 15 to 20 feet and girdled near the base, where feasible given safety considerations. Deciduous trees such as alder, willow, and cherry are preferred, and defective trees are preferred over healthy trees. The specific trees to be used for snag creation (see Figure 2) would be confirmed by the project biologist at the time of site clearing.
- c. In addition, 6 logs at least 15 feet long will be selected and placed within the

retained open space areas to enhance retained forested open space for pileated woodpecker foraging. These may be selected during tree clearing operations from trees to be removed from the site, or from portions cut from trees to be made into snags, as appropriate. Pileated woodpeckers use downed logs greater than or equal to 12 inches in diameter at the largest end as foraging sites, but to a lesser extent in western Washington than east of the Cascade Range (Aubry and Raley 2002, Bull 1987). Aubry and Raley (2002) suggested that in wet western Washington forests, the overall moisture content of logs lying on the ground may be sufficient to prevent infestation of insects that pileated woodpeckers feed on. However, they further documented that downed logs that were used by woodpeckers were typically those raised off the ground (Aubry and Raley 2002).

The logs placed in the open space areas will provide both current and future foraging sites for pileated woodpeckers once the logs age and become invaded by carpenter ants and other insects. Logs will be chosen for placement on the following criteria:

- Size – Larger logs will be selected and shall be at least 15 feet long and at least 12 inches in diameter at the large end.
 - Defect – Logs with current defects such as heart-rot, carpenter ant infestation, or other insect damage are preferred. However, trees that appear to have been heavily used as foraging sites in the past with no recent sign of use by woodpeckers should not be used.
 - Species – Preference is for alder logs and Douglas-fir, where available. Based on our habitat assessment, only a few snags with woodpecker forage sign were observed, and most of these were relatively small Scouler's willow. For mitigation tree selection purposes, red alder tends to decay at a more rapid rate than conifers; therefore, a mix of both types will provide foraging habitat over a longer period of time.
 - Placement – Logs would be placed in the retained open space. These logs will be clustered in pairs such that for each log directly on the ground, one log will be laid over it to keep them relatively dry. Exact locations for log placement would be determined in the field by the project biologist to minimize damage to native vegetation that may result from this work.
- d. In addition to snags and logs, the planting of conifer trees is required to enhance overall wildlife habitat within the open space areas and to provide some screening from neighboring properties. Planting of conifer trees along the perimeter of the retained open space areas, within rear lot areas, and along the western and eastern perimeter of the project site (Figure 2) is required. Conifer plantings should be spaced 12 to 15 feet apart and consist of a mix of Douglas fir and western red cedar, depending on site conditions. Douglas fir should be planted in more exposed areas, and cedar should be planted in more shady areas.

Required elements of the habitat improvement plan shall be complete prior to approval of the final short plat unless a financial security device equal to 150% of the bid value of the habitat enhancement action that meets the requirements of LUC 20.40.490 is submitted and approved by the Development Services Department extending the installation deadline.

AUTHORITY: LUC 20.25H.075; LUC 20.25H.210

REVIEWER: David Pyle, Development Services Department

10. HABITAT ENHANCEMENT MAINTENANCE ASSURANCE DEVICE

In order to protect health, safety and welfare, or to protect critical area functions and values in the event of total or partial failure or underperformance of the restoration work proposed, following approval of the final habitat enhancement plan and complete maintenance and monitoring plan, and prior to issuance of associated construction permits, the applicant shall submit a financial security device that meets the requirements of LUC 20.40.490 equal to not less than 20 percent of the cost of replacing the materials covered by the assurance device based on estimated costs on the last day covered by the device. The device shall be held for a period of five years and shall be released upon the successful completion of the maintenance and monitoring period including timely submittal of monitoring reports.

AUTHORITY: LUC 20.25H.220; LUC 20.40.490

REVIEWER: David Pyle, Development Services Department

11. TREE PRESERVATION REQUIREMENTS

A minimum of thirty percent of the diameter inches of all significant trees on the site are required to be retained. Prior to issuance of plat infrastructure and clearing and grading permits the applicant shall submit a tree preservation plan that includes a complete site tree inventory and identifies all trees to be removed. All trees to be retained must clearly be labeled on all future plans submitted and must be clearly identified on the final plat mylar. Retained trees along the boundary of the established clearing limits (NGPA boundary) must be identified through the installation of "City of Bellevue Retained Tree – Do Not Remove" tags.

AUTHORITY: BCC 23.76.060; LUC 20.25H.255

REVIEWER: David Pyle, Development Services Department

12. HOLD HARMLESS AGREEMENT

Prior to issuance of plat infrastructure and clearing and grading permits, the applicant or property owner shall submit a hold harmless agreement releasing the City of Bellevue from any and all liability associated with site development. The agreement must meet city requirements and must be reviewed by the City Attorney's Office for formal approval.

Authority: Land Use Code 20.30P.170

Reviewer: David Pyle, Development Services Department

13. LAND USE INSPECTION

Following final habitat enhancement installation the applicant shall contact Land Use staff for inspection.

Authority: Land Use Code 20.30P.140

Reviewer: David Pyle, Development Services Department

14. TREE PROTECTION

Prior to issuance of plat infrastructure and clearing and grading permits, the applicant shall provide a Tree Protection Plan that implements the City of Bellevue Drawing Number TP-1, Tree Protection Procedures during Construction; for every inch diameter of tree, fencing would be 1 foot from the tree trunk. This radius may be modified to accommodate site access. Additional measures will be employed to protect roots where the radius was modified, such as the temporary placement of hog fuel. Tree protection fencing must be installed prior to construction. The applicant shall provide a certified arborist to monitor the grading and construction activities to protect the rootzones of all the trees to be preserved, to ensure that the health of the retained trees is not endangered, and to identify trees which may constitute a hazard

Authority: Bellevue City Code 23.76

Reviewer: David Pyle, Development Services Department

C. PRIOR TO FINAL SHORT PLAT APPROVAL:

1. INFRASTRUCTURE IMPROVEMENTS

All street frontage and infrastructure improvements shown in the final engineering plans or required by city codes and standards must be either completed prior to approval of the final short plat or provided for with a financial assurance device. Completion of the top lift and all other transportation infrastructure items prior to completion of the homes associated with the development is allowed.

Land Use Code Section 20.40.490 allows a developer to obtain final short plat approval prior to finishing improvements with provision of an acceptable financial assurance device equivalent to 150% of the cost of unfinished infrastructure improvements. Provision of such an assurance device requires completion of the improvements by the developer within two years of final short plat approval. Installation of improvements that would negatively affect safety if left unfinished may not be delayed through use of a financial assurance device. Partial reductions of the financial assurance device will not be approved except in special circumstances, determined in advance, such as phased projects.

Improvements must be approved by the Transportation Department inspector before they are deemed complete. At completion of all transportation infrastructure items, the developer must provide a one year maintenance

assurance device equivalent to 20% of the value of the transportation infrastructure improvements, dating from the acceptance of the improvements.

AUTHORITY: Bellevue City Code 14.60.100, 110, 130, 150, 170, 190, 210, 240, 241; LUC 20.40.490

Transportation Department Design Manual Sections 3, 4, 5, 7, 11, 14, 19

REVIEWER: Ray Godinez Transportation Department (425)452-7915

2. ACCESS DESIGN AND MAINTENANCE

The final Subdivision map must include a note that specifies that the owners of lots served by the joint use driveway are jointly responsible for maintenance and repair of the joint use driveway.

The final Subdivision map must include a note that specifies that the joint use driveway will remain open at all times for emergency and public service vehicles and shall not be gated or obstructed.

AUTHORITY: BCC 14.60.130

REVIEWER: Ray Godinez Transportation Department (425) 452-7915

3. UTILITY COMPLETION

The development's public utilities shall be constructed, inspected and accepted by the utility department prior to signing off the final short plat.

AUTHORITY: Bellevue City Code Title 24.02, 24.04, 24.06

REVIEWER: Mark Dewey, Utilities Department

4. NGPA DEDICATION AND RECORDING

The 6.8 acre Native Growth Protection Area (NGPA) tract shall be designated on the face of the Final Short Plat. The boundaries of the NGPA tract must be surveyed and legally described on the face of the Final Short Plat. The following note is required to be placed on the final short plat:

NATIVE GROWTH PROTECTION AREA (NGPA) TRACT

DEDICATION OF NATIVE GROWTH PROTECTION AREAS (NGPA) ESTABLISHES, ON ALL PRESENT AND FUTURE OWNERS AND USERS OF THE LAND, AN OBLIGATION TO LEAVE UNDISTURBED ALL TREES AND OTHER VEGETATION WITHIN THE AREA, FOR THE PURPOSE OF PREVENTING HARM TO, PROPERTY AND ENVIRONMENT, INCLUDING BUT NOT LIMITED TO CONTROLLING SURFACE WATER RUNOFF AND EROSION, MAINTAINING SLOPE STABILITY, BUFFERING AND PROTECTING PLANTS AND ANIMAL HABITAT, EXCEPT, FOR THE REMOVAL, OF DISEASED OR DYING VEGETATION WHICH PRESENTS A HAZARD OR IMPLEMENTATION OF AN ENHANCEMENT PLAN

REQUIRED OR APPROVED BY THE CITY. ANY WORK, INCLUDING REMOVAL OF DEAD, DISEASED, OR DYING VEGETATION, IS SUBJECT TO PERMIT REQUIREMENTS OF THE CITY OF BELLEVUE CODES. THE OBLIGATION TO ENSURE THAT ALL TERMS OF THE NGPA ARE MET IS THE RESPONSIBILITY OF THE OWNERS OF LOTS 1 THROUGH 5. THE CITY OF BELLEVUE SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO ENFORCE THE REQUIREMENTS, TERMS, AND CONDITIONS OF THIS RESTRICTION BY ANY, METHOD AVAILABLE UNDER LAW.

AUTHORITY: Land Use Code 20.45B.055.B.2

REVIEWER: David Pyle, Development Services Department

5. NGPA BOUNDARY FENCE AND SIGNAGE

Prior to approval of the final short plat, the applicant shall perform a field survey of property boundaries completed by a Washington State Licensed Surveyor. The boundary of the NGPA and NGPE shall be identified, fenced, and marked with boundary signage that states:

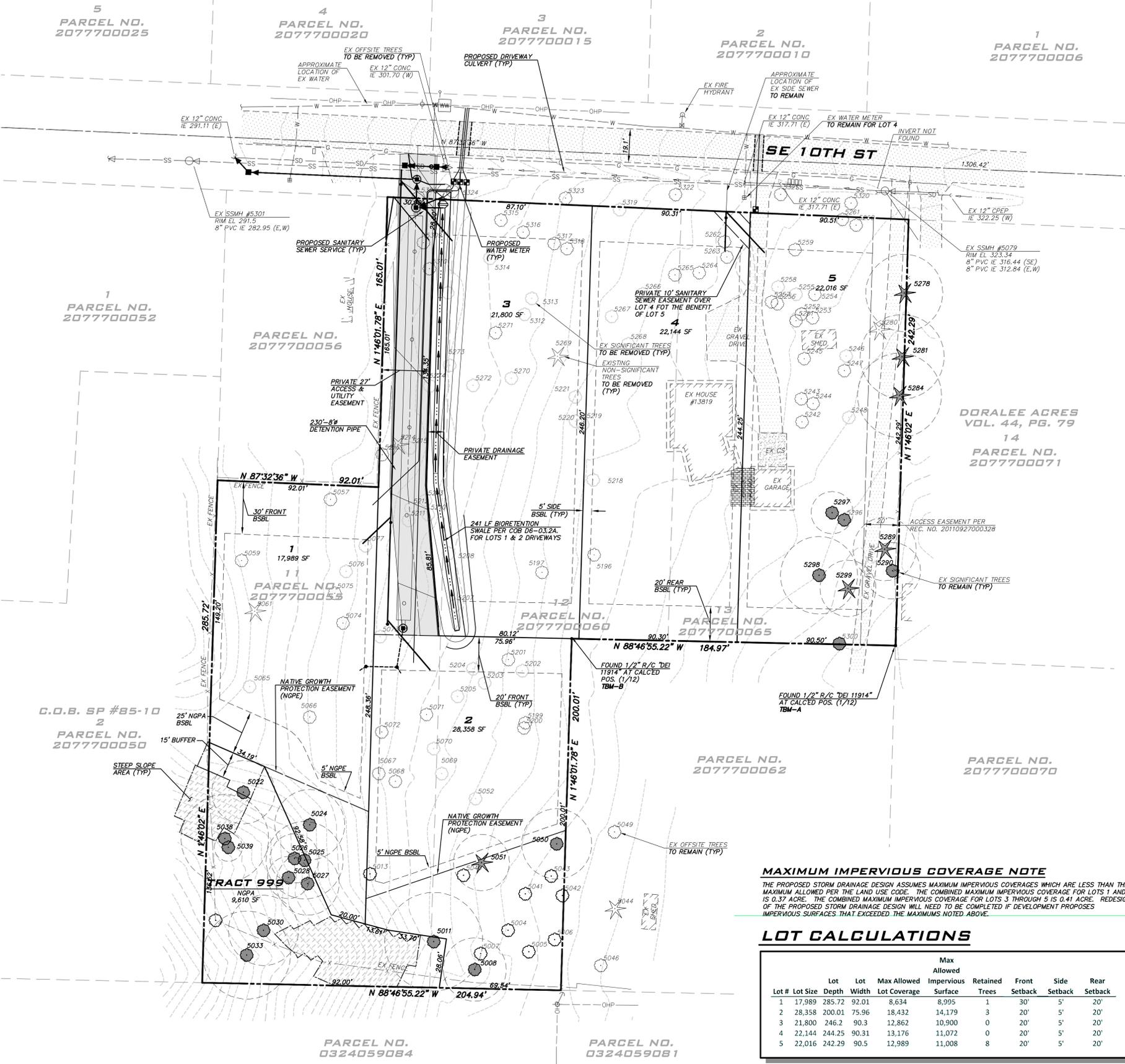
PROTECTED AREA – NO CLEARING

This fence marks the edge of a Native Growth Protection Area. Disturbance, vegetation removal, or tree removal beyond this fence is prohibited.

NGPA/NGPE boundary fencing and signage shall be of permanent construction and shall be maintained for the duration of the plat development. Signs must be of size and location to be visible and the boundary fence shall be a minimum of four feet tall.

AUTHORITY: LUC 20.25H.030

REVIEWER: David Pyle, Development Services Department



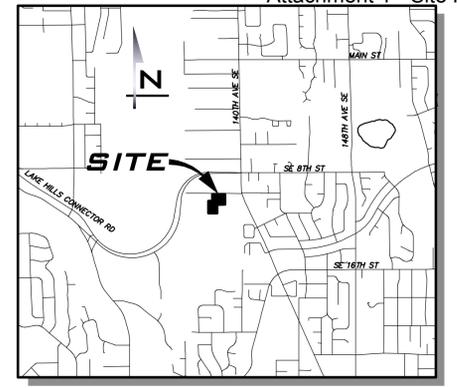
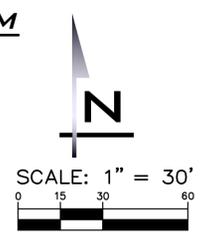
PROJECT TEAM

OWNER
MARY MAUS
13819 SE 10TH ST
BELLEVUE, WA 98005

DEVELOPER
THOM GEBHARD
MURRAY FRANKLYN
14410 BEL-RED ROAD
BELLEVUE, WA 98007
(425) 644-2323

CIVIL ENGINEER
THE BLUELINE GROUP
25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
(425) 216-4051 x224
CONTACT: TODD A. OBERG, PE

SURVEYOR
MEAD GILMAN & ASSOCIATES
PO BOX 289
WOODINVILLE, WA 98072
(425) 486-1232
CONTACT: SHANE BARNES, PLS



VICINITY MAP
NOT TO SCALE

DENSITY CALC'S

SITE AREA: 121,917 SF (2.80 AC)
(ZONED DENSITY x SITES BUILDABLE AREA) +
(ZONED DENSITY x CRITICAL AREA x DEVELOPMENT FACTOR)
(1.8 x 2.58) + (1.8 x 0.22 x 0.921)
4.64 + 0.37 = 5.01
DEVELOPMENT DENSITY OF 5

MERIDIAN

WASHINGTON STATE PLANE COORDINATE SYSTEM - NORTH ZONE
PER CITY OF BELLEVUE CONTROL POINTS 0098 & 1665.

DATUM

NAVD 88

BENCHMARKS

ORIGINAL BM: FOUND CONC. MON WITH BRASS CAP STAMPED "CITY OF BELLEVUE"
DOWN 0.4" IN A CASE AT INTX. OF 140TH AVE SE & SE 8TH ST.
ELEV. = 305.34

TBM - A: FOUND 1/2" R/C "DEI 11914" AT EASTERLY PROPERTY CORNER.
ELEV. = 334.01

TBM - B: FOUND 1/2" R/C "DEI 11914" AT INTERIOR PROPERTY CORNER.
ELEV. = 318.52

GENERAL NOTES

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- UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, MEAD GILMAN & ASSOCIATES DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST.
- NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.

LEGAL DESCRIPTION

PARCEL A
LOT 11, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE NORTH 165 FEET OF THE WEST 92 FEET THEREOF;

PARCEL B
LOT 12, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE SOUTH 200 FEET OF THE EAST 55 FEET THEREOF;

PARCEL C
LOT 13, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON;
EXCEPT THE SOUTH 200 FEET THEREOF.

REFERENCES

- PLAT OF DORALEE ACRES RECORDED IN VOLUME 44 OF PLATS, AT PAGE 79.
- RECORD OF SURVEY RECORDED IN VOLUME 53 OF SURVEYS, AT PAGE 216, UNDER RECORDING NUMBER 8701279025.
- RECORD OF SURVEY RECORDED IN VOLUME 44 OF SURVEYS, AT PAGE 222, UNDER RECORDING NUMBER 8505169016.
- RECORD OF SURVEY AS RECORDED IN VOLUME 215 OF SURVEYS, AT PAGE 65, UNDER RECORDING NUMBER 2006111690001.

RESTRICTIONS OF RECORD

- SUBJECT TO COVENANTS, CONDITIONS, RESTRICTIONS, EASEMENTS, NOTES, DEDICATIONS, AND SETBACKS, IF ANY, SET FORTH OR DELINEATED ON THE PLAT OF DORALEE ACRES, AS RECORDED IN VOLUME 44 OF PLATS, AT PAGE 79. PLOTTED HEREON.
- SUBJECT TO AN EASEMENT FOR INGRESS, EGRESS, AND MAINTENANCE AND THE TERMS AND CONDITIONS THEREOF AS RECORDED UNDER RECORDING NUMBER 20110927000328. PLOTTED HEREON.
- SUBJECT TO THE TERMS AND CONDITIONS OF NOTICE OF CHARGES BY WATER, SEWER, AND/OR STORM SURFACE WATER UTILITIES, RECORDED UNDER RECORDING NUMBER 9612200938. NOT PLOTTED HEREON.

LANDUSE DISTRICT CLASSIFICATION

R-1.8

UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 1-800-424-5555 AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

MAXIMUM IMPERVIOUS COVERAGE NOTE

THE PROPOSED STORM DRAINAGE DESIGN ASSUMES MAXIMUM IMPERVIOUS COVERAGES WHICH ARE LESS THAN THE MAXIMUM ALLOWED PER THE LAND USE CODE. THE COMBINED MAXIMUM IMPERVIOUS COVERAGE FOR LOTS 1 AND 2 IS 0.37 ACRE. THE COMBINED MAXIMUM IMPERVIOUS COVERAGE FOR LOTS 3 THROUGH 5 IS 0.41 ACRE. REDESIGN OF THE PROPOSED STORM DRAINAGE DESIGN WILL NEED TO BE COMPLETED IF DEVELOPMENT PROPOSES IMPERVIOUS SURFACES THAT EXCEEDED THE MAXIMUMS NOTED ABOVE.

LOT CALCULATIONS

| Lot # | Lot Size | Depth | Width | Max Allowed Lot Coverage | Max Allowed Impervious Surface | Retained Trees | Front Setback | Side Setback | Rear Setback |
|-------|----------|--------|-------|--------------------------|--------------------------------|----------------|---------------|--------------|--------------|
| 1 | 17,989 | 285.72 | 92.01 | 8,634 | 8,995 | 1 | 30' | 5' | 20' |
| 2 | 28,358 | 200.01 | 75.96 | 18,432 | 14,179 | 3 | 20' | 5' | 20' |
| 3 | 21,800 | 246.2 | 90.3 | 12,862 | 10,900 | 0 | 20' | 5' | 20' |
| 4 | 22,144 | 244.25 | 90.31 | 13,176 | 11,072 | 0 | 20' | 5' | 20' |
| 5 | 22,016 | 242.29 | 90.5 | 12,989 | 11,008 | 8 | 20' | 5' | 20' |

| TREE ID | SPECIES | DIAMETER | WEIGHTING FACTOR | TREES WITHIN SITE INTERIOR | TREES SAVED |
|---------|-----------------|----------|------------------|----------------------------|-------------|
| 5008 | Maple | 12 | 1 | 12 | 12 |
| 5011 | Maple | 24 | 1 | 24 | 24 |
| 5022 | M. Ash | 12 | 1 | 12 | 12 |
| 5024 | Madrone | 12 | 1 | 12 | 12 |
| 5025 | Cherry | 16 | 1 | 16 | 16 |
| 5026 | Cherry | 12 | 1 | 12 | 12 |
| 5027 | Cherry | 12 | 1 | 12 | 12 |
| 5028 | Diswood | 8 | 1 | 8 | 8 |
| 5030 | Madrone | 16 | 1 | 16 | 16 |
| 5033 | Maple | 28 | 1 | 28 | 28 |
| 5038 | Maple | 18 | 1 | 18 | 18 |
| 5039 | Cherry | 10 | 1 | 10 | 10 |
| 5050 | Cherry | 12 | 1 | 12 | 12 |
| 5051 | Fr | 14 | 1 | 14 | 14 |
| 5057 | Portulac laurel | 10 | 1 | 10 | 10 |
| 5059 | Maple | 20 | 1 | 20 | 20 |
| 5061 | Fr | 26 | 1 | 26 | 26 |
| 5065 | Maple | 22 | 1 | 22 | 22 |
| 5066 | Maple | 18 | 1 | 18 | 18 |
| 5067 | Maple | 12 | 1 | 12 | 12 |
| 5068 | Maple | 16 | 1 | 16 | 16 |
| 5071 | Maple | 14 | 1 | 14 | 14 |
| 5073 | Maple | 14 | 1 | 14 | 14 |
| 5074 | Maple | 17 | 1 | 17 | 17 |
| 5075 | Maple | 16 | 1 | 16 | 16 |
| 5196 | Maple | 41 | 1 | 41 | 41 |
| 5197 | Maple | 10 | 1 | 10 | 10 |
| 5199 | Alber | 12 | 0.5 | 6 | 6 |
| 5200 | Alber | 12 | 0.5 | 6 | 6 |
| 5201 | Maple | 14 | 1 | 14 | 14 |
| 5214 | Spence | 16 | 1 | 16 | 16 |
| 5216 | Locust | 14 | 0.5 | 7 | 7 |
| 5242 | Locust | 14 | 1 | 14 | 14 |
| 5243 | Locust | 26 | 1 | 26 | 26 |
| 5244 | Locust | 26 | 1 | 26 | 26 |
| 5245 | Locust | 12 | 1 | 12 | 12 |
| 5247 | Locust | 10 | 1 | 10 | 10 |
| 5251 | Locust | 15 | 1 | 15 | 15 |
| 5252 | Locust | 17 | 1 | 17 | 17 |
| 5253 | Locust | 16 | 1 | 16 | 16 |
| 5254 | Maple | 11 | 1 | 11 | 11 |
| 5256 | Locust | 16 | 1 | 16 | 16 |
| 5257 | Locust | 11 | 1 | 11 | 11 |
| 5259 | Maple | 22 | 1 | 22 | 22 |
| 5260 | Cottonwood | 42 | 0.5 | 21 | 21 |
| 5261 | Cottonwood | 20 | 0.5 | 10 | 10 |
| 5262 | Locust | 12 | 1 | 12 | 12 |
| 5263 | Locust | 14 | 1 | 14 | 14 |
| 5264 | Maple | 22 | 1 | 22 | 22 |
| 5265 | Madrone | 22 | 1 | 22 | 22 |
| 5269 | Fr | 14 | 1 | 14 | 14 |
| 5271 | Maple | 20 | 1 | 20 | 20 |
| 5278 | Fr | 26 | 1 | 26 | 26 |
| 5280 | Fr | 16 | 1 | 16 | 16 |
| 5281 | Fr | 22 | 1 | 22 | 22 |
| 5284 | Fr | 26 | 1 | 26 | 26 |
| 5289 | Fr | 10 | 1 | 10 | 10 |
| 5290 | Maple | 10 | 1 | 10 | 10 |
| 5297 | Cherry | 10 | 1 | 10 | 10 |
| 5298 | Maple | 14 | 1 | 14 | 14 |
| 5299 | Fr | 14 | 1 | 14 | 14 |
| 5309 | Maple | 10 | 1 | 10 | 10 |
| 5310 | Maple | 20 | 1 | 20 | 20 |
| 5311 | Cacoon | 8 | 1 | 8 | 8 |
| 5315 | Maple | 18 | 1 | 18 | 18 |
| 5316 | Maple | 16 | 1 | 16 | 16 |
| 5317 | Maple | 12 | 1 | 12 | 12 |
| 5318 | Maple | 12 | 1 | 12 | 12 |
| A | Maple | 10 | 1 | 10 | 10 |
| G | Maple | 18 | 1 | 18 | 18 |
| | | 1144 | | 1004 | 944 |

SITE INTERIOR TREE RETENTION REQUIREMENT: MUST HAVE 30% OF DIAMETER INCHES OF SIGNIFICANT TREE = 1094 x 30% = 328
NOTE: 30% IS THE MINIMUM REQUIREMENT



NOTE
BOUNDARY & TOPOGRAPHY FROM A SURVEY BY MEAD GILMAN & ASSOCIATES DATED 2/2/12 (INCLUDED IN SUBMITTAL PACKAGE)

© 2012 THE BLUELINE GROUP

| NO | DATE | BY | APPR | REVISIONS |
|----|--------|----|------|---------------------------|
| 1 | 7/2/12 | | | REVISED PER CITY COMMENTS |

25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
P: 425.216.4051 F: 425.216.4052
WWW.THEBLUELINEGROUP.COM



APPROVED BY

SCALE: HORIZ: 1"=30' VERT:N/A

TODD A. OBERG, PE
PROJECT MANAGER

GINA BROOKS
DESIGNED BY

DOMINIQUE GABALDON
DRAWN BY

MAUS PROPERTY
CONSERVATION SHORT PLAT
13819 SE 10TH ST

CITY OF BELLEVUE, WASHINGTON

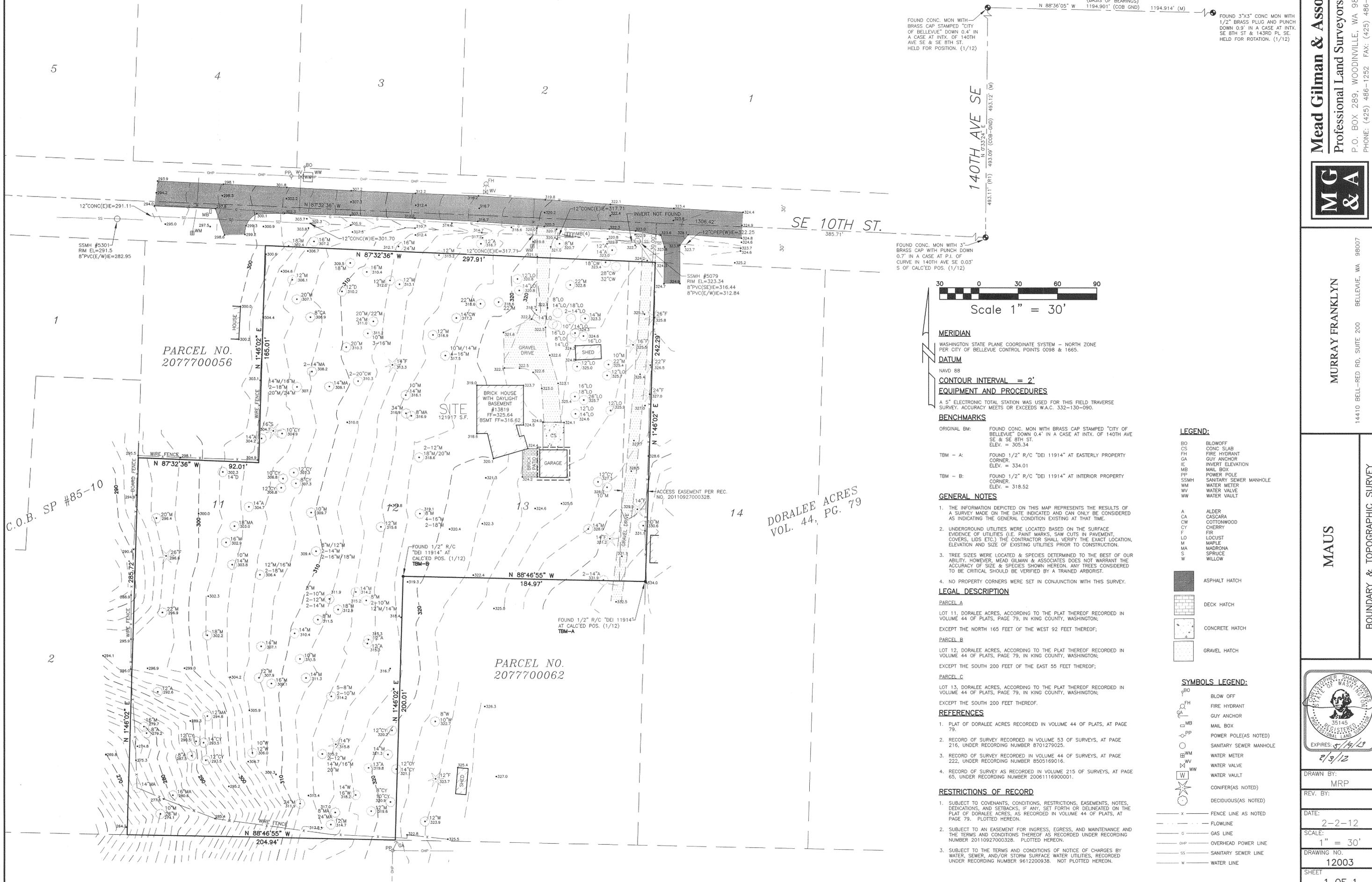
DRAINAGE MAP #

PRELIMINARY SHORT PLAT

JOB NUMBER: 12-007

SEC 3 TWP 24 RGE 5 SHT 1 OF 1

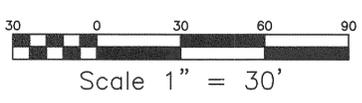
Aug 01, 2012 - 10:44am - User: akoy
E:\Projects\12007\DWG\Prelim\12007PPP.dwg



FOUND CONC. MON WITH BRASS CAP STAMPED "CITY OF BELLEVUE" DOWN 0.4' IN A CASE AT INTX. OF 140TH AVE SE & SE 8TH ST. HELD FOR POSITION. (1/12)

FOUND 3"x3" CONC MON WITH 1/2" BRASS PLUG AND PUNCH DOWN 0.9' IN A CASE AT INTX. SE 8TH ST & 143RD PL SE. HELD FOR ROTATION. (1/12)

FOUND CONC. MON WITH 3" BRASS CAP WITH PUNCH DOWN 0.7' IN A CASE AT P.I. OF CURVE IN 140TH AVE SE 0.03' S OF CALC'D POS. (1/12)



MERIDIAN

WASHINGTON STATE PLANE COORDINATE SYSTEM - NORTH ZONE PER CITY OF BELLEVUE CONTROL POINTS 0098 & 1665.

DATUM

NAVD 88

CONTOUR INTERVAL = 2'

EQUIPMENT AND PROCEDURES

A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. ACCURACY MEETS OR EXCEEDS W.A.C. 332-130-090.

BENCHMARKS

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- TBM - A: FOUND 1/2" R/C "DEI 11914" AT EASTERLY PROPERTY CORNER. ELEV. = 334.01
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LEGAL DESCRIPTION

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LOT 11, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON; EXCEPT THE NORTH 165 FEET OF THE WEST 92 FEET THEREOF;
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LOT 12, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON; EXCEPT THE SOUTH 200 FEET OF THE EAST 55 FEET THEREOF;
- PARCEL C**
LOT 13, DORALEE ACRES, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 44 OF PLATS, PAGE 79, IN KING COUNTY, WASHINGTON; EXCEPT THE SOUTH 200 FEET THEREOF.

REFERENCES

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- RECORD OF SURVEY AS RECORDED IN VOLUME 215 OF SURVEYS, AT PAGE 65, UNDER RECORDING NUMBER 20061116900001.

RESTRICTIONS OF RECORD

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- SUBJECT TO THE TERMS AND CONDITIONS OF NOTICE OF CHARGES BY WATER, SEWER, AND/OR STORM SURFACE WATER UTILITIES, RECORDED UNDER RECORDING NUMBER 9612200938. NOT PLOTTED HEREON.

LEGEND:

- BO BLOWOFF
- CS CONC SLAB
- FH FIRE HYDRANT
- GA GUY ANCHOR
- IE INVERT ELEVATION
- MB MAIL BOX
- PP POWER POLE
- SSMH SANITARY SEWER MANHOLE
- WM WATER METER
- WV WATER VALVE
- WW WATER VAULT

- A ALDER
- CA CASCARA
- CW COTTONWOOD
- CH CHERRY
- F FIR
- LO LOCUST
- M MAPLE
- MA MADRONA
- S SPRUCE
- W WILLOW

SYMBOLS LEGEND:

- BO BLOW OFF
- FH FIRE HYDRANT
- GA GUY ANCHOR
- MB MAIL BOX
- PP POWER POLE (AS NOTED)
- SSMH SANITARY SEWER MANHOLE
- WM WATER METER
- WV WATER VALVE
- WW WATER VAULT
- W CONIFER (AS NOTED)
- W DECIDUOUS (AS NOTED)
- X FENCE LINE AS NOTED
- FLOWLINE
- GAS LINE
- OHP OVERHEAD POWER LINE
- SS SANITARY SEWER LINE
- W WATER LINE

Mead Gilman & Assoc
Professional Land Surveyors
P.O. BOX 289, WOODINVILLE, WA 98072
PHONE: (425) 486-1252 FAX: (425) 486-6108



MURRAY FRANKLYN
14410 BELL-RED RD., SUITE 200
BELLEVUE, WA 98007

MAUS
BOUNDARY & TOPOGRAPHIC SURVEY



DRAWN BY: MRP
REV. BY:
DATE: 2-2-12
SCALE: 1" = 30'
DRAWING NO. 12003
SHEET 1 OF 1



City of Bellevue
450 110th Avenue NE
Bellevue, WA 98009-9012

RE: Maus Preliminary Short Plat-13819 SE 10th Street

Project Narrative

The site consists of three parcels totaling 2.797 acres of land. One single family residence built in 1949 and detached garage are located on parcel 2077700065 while the other two parcels 2077700055 and 2077700060 are undeveloped.

The existing vegetation is landscaped and lawn associated with the residence and area of native tree vegetation. The ground generally slopes to the west with grades between 3%-14% with some steep slope area located in the southwest corner of the site. The site is surrounded by residential properties.

The proposal is a Conservation Short Subdivision of three parcels into five. The zone is R-1.8 with lots ranging in size between 17,989 sf to 28,563 sf and a NGPA Tract to encompass the steep slope area and associated buffer.

We are requesting a reduction in steep slope buffer from 50' to 15'. A 20' rear BSBL will be provided which will in essence secure a 35' structure setback from the steep slope area. The area outside of the 15' buffer is relatively flat and will only be graded to provide a useable rear yard.

20.25H.125 Performance standards – Landslide hazards and steep slopes

A. Foundations shall be tiered where possible to conform to existing topography.

The proposed house and foundation on Lot 1 are located outside of the required 50' buffer and the house has been designed to accommodate existing topography.

B. Structures and improvements shall be located to preserve the most critical portion of the site and its natural land forms and vegetation.

In the southwest corner of Lot 1 there is a steep slope system that measures greater than 40%. We are proposing a 15' buffer from this steep slope area as appose to the required 50'. A 20' rear BSBL will be provided which will secure a 35' structure setback from the steep slope area. This reduction request is to allow for the proposed home to have a usable rear yard in a relatively flat steep slope buffer area.

C. The proposed development shall not result in greater risk or need for increased buffers on neighboring properties.

The development will not result in any additional steep slope buffers on neighboring properties.

D. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall.

No retaining walls are proposed to retain the steep slope areas or corresponding buffer. A fence will be installed to delineate the steep slope area and its 15' buffer.

E. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer.

A small portion of the rock wall proposed along the east property line encroaches into the required 50' buffer but will be located outside the proposed 15' buffer.

F. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;

We propose a change of grade in the outer 10' of the required 50' steep slope buffer to allow for a usable rear yard and daylight basement in addition to three 30" terracing rock walls to accommodate the change in grade. To maintain site stability no fill will be added in the required 50' buffer. No grading will occur in the 40% slope area.

G. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;

The proposed house and foundation on Lot 1 are located outside of the required 50' buffer. A small portion of the rock wall proposed along the east property line encroaches into the required 50' buffer. The house has been designed to accommodate existing topography which incorporates a daylight basement.

H. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;

No structures are proposed on the 40% slopes.

I. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and

No structures are proposed on the 40% slopes.

J. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.

Evasive vegetation will be removed and the area will be replanted with native vegetation.

20.25H.255 Critical areas report – Decision criteria

- 1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;**
Removal of existing evasive vegetation will allow for replanting's with native vegetation.
- 2. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;**
To maintain site stability no fill will be added in the required 50' buffer.
- 3. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the regulated critical area buffer;**
No pollution generating impervious surface will be installed in the regulated buffer area, therefore there will be no impact to the water quality function of this area.
- 4. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;**

The permitting system and geotechnical assessments will ensure required restoration, mitigation and monitoring will be achieved through final building certificate of occupancy.

5. *The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and*

Our proposal is to reduce the steep slope buffer from 50' to 15'. We are providing an additional 20' BSBL from the buffer, which provides a 35' structure setback from the steep slope area. This area is relatively flat and will allow for the proposed single family to have a usable rear yard. The steep slope system as a whole will not be disturbed and there will be no increase in these steep slope areas as a result of our proposal.

6. *The resulting development is compatible with other uses and development in the same land use district.*

The development requests are compatible with the neighboring properties and proposals within the R-1.8 zone involving Conservation Short Subdivisions.



TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

July 2, 2012
Project No. T-6702

Mr. Todd Oberg
The Blueline Group
25 Central Way, Suite 400
Kirkland, Washington 98033

Subject: Steep Slope Buffer
Maus Property
Bellevue, Washington

- References:
1. City of Bellevue Revision Letter, Maus Short Plat and Critical Areas Land Use Permit, COB File #s 12-110357-LN and 12-113805-LO, dated June 22, 2012
 2. Geotechnical Report, Maus Property, 13819 SE 10th Street, Bellevue, Washington, Project No. T-6702, prepared by Terra Associates, Inc., dated March 20, 2012

Dear Mr. Oberg:

Revision Number 3 in the referenced City of Bellevue letter refers to our recommendations regarding the required buffer from the steep slopes located in the southwest corner of the subject site. As we discussed, the recommended buffer was based on the proposed use of dispersion trenches in this area for management of roof water runoff from Lots 1 and 2. The location of the dispersion trenches relative to the slope is shown on the Exploration Location Plan, Figure 2 of our referenced geotechnical report.

As we understand, dispersion trenches will no longer be used with runoff from the lots discharged to a stormwater detention pipe installed below the shared access drive. With the dispersion trenches eliminated potential erosion and stability impacts to the slopes will be significantly reduced and accordingly the buffer requirement from the slope can also be reduced. In our opinion, the 15-foot buffer shown on the current site plan dated May 15, 2012 would adequately protect the steep slope hazard from stability impacts.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,

TERRA ASSOCIATES, INC.

Theodore J. Schepp
President



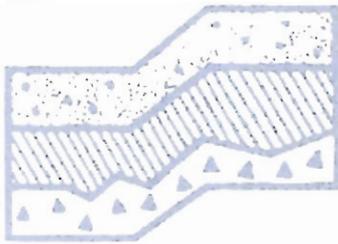
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cc: Mr. John Gehard Murray Franklyn Companies

GEOTECHNICAL REPORT

**Maus Property
13819 SE 10th Street
Bellevue, Washington**

Project No. T-6702



Terra Associates, Inc.

Prepared for:

**Murray Franklyn
Bellevue, Washington**

March 20, 2012



Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

March 20, 2012
Project No. T-6702

Mr. Thom Gebhard
Murray Franklyn
14410 Bel-Red Road
Bellevue, Washington 98007

Subject: Geotechnical Report
Maus Property
13819 SE 10th Street
Bellevue, Washington

Dear Mr. Gebhard:

As requested, we have conducted a geotechnical engineering study for the subject project. The attached report presents our findings and recommendations for the geotechnical aspects of project design and construction.

Our field exploration indicates that the site can be divided into two soil groups. The two test pits excavated in the southern portion of the site generally revealed 12 inches of organics overlying 4 to 4 ½ feet of medium dense silty sand with gravel (weathered till) overlying very dense silty sand with gravel (unweathered till) to the termination of the test pits. In the north north-central portion of the site soils generally consisted of 12 to 18 inches of organics overlying 2 feet of loose to medium dense inorganic fill material overlying medium dense to dense sand with silt and gravel (recessional outwash). Test Pit TP-4 was terminated in the recessional outwash at approximately 15 feet below current site grades. Test Pit TP-3 had an approximately 3.5-foot layer of recessional outwash overlying very dense silty sand with gravel (unweathered glacial till). We observed groundwater in 3 of the 4 test pits at 2 to 7.5 feet below current site grades.

In our opinion, the native soils on the site will be suitable for support of the proposed development provided the recommendations present in this report are incorporated into project design and construction.

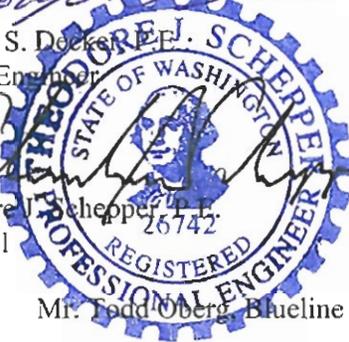
We trust the information provided in the attached report is sufficient for your current needs. If you have any questions or need additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

Carolyn S. Decker

Carolyn S. Decker, P.E.
Project Engineer

Theodore J. Scheppe
Theodore J. Scheppe, P.E.
Principal



3-20-12

cc: Mr. Todd Oberg, Bueline

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**Geotechnical Report
Maus Property
13819 SE 10th Street
Bellevue, Washington**

1.0 PROJECT DESCRIPTION

The project consists of developing the approximately 2.7-acre site with 5 residential building lots and associated roadway and utility improvements. Site development and building plans are currently not available; however, we were provided with a preliminary site plan prepared by Blueline, dated February 15, 2012. The preliminary plan indicates that stormwater runoff will be managed on each individual lot using downspout and sheet flow dispersion systems.

We expect that the residential buildings will be two- and three-story, wood-framed buildings with their main floor levels framed over a crawl space with attached garage floors constructed at grade. Structural loading should be relatively light; with bearing walls carrying loads of 2 to 3 kips per foot and isolated columns carrying maximum loads of 30 to 40 kips.

The recommendations contained in the following sections of this report are based on assumed design features. We should review design drawings and specifications as they are developed to verify that our recommendations are valid for the proposed construction and to amend or modify our report, as necessary.

2.0 SCOPE OF WORK

Our work was completed in accordance with our authorized proposal dated March 7, 2012. On March 13, 2012, we excavated 4 test pits between 10 and 15 feet below current site grades. Using the information obtained from the subsurface explorations, we performed analyses to develop geotechnical recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions
- Seismic Design Parameters per 2009 International Building Code (IBC)
- Geologic Hazards per City of Bellevue Land Use Code
- Pavement subgrade preparation and grading
- Excavations
- Foundations

- Slab-on-grade floors
- Stormwater dispersion/infiltration feasibility
- Utilities
- Drainage
- Pavements

It should be noted that the recommendations outlined in this report regarding drainage are associated with soil strength, design earth pressures, erosion, and stability. Design and performance issues with respect to moisture as it relates to the structure environment (i.e., humidity, mildew, mold) are beyond Terra Associates' purview. A building envelope specialist or contractor should be consulted to address these issues, as needed.

3.0 SITE CONDITIONS

3.1 Surface

The project site is comprised of 3 land parcels totaling approximately 2.7 acres located at 13819 SE 10th Street in Bellevue, Washington. The site is bordered to the north by SE 10th Street, to the east and west by single-family homes, and to the south by open land. The approximate site location is shown on attached Figure 1.

The site is occupied by a single-family home in the northeastern portion of the site with associated parking and landscaping. The remainder of the site is covered with a moderate growth of trees and associated understory. There are at least two railroad tracks that run throughout the entire site. The tracks are elevated on wooden bridges approximately eight to nine feet in height in the southern portion of the site and supported on small mounds of undocumented fill material in the northern portion of the site.

Site topography consists of a slight slope from east to west with an overall elevation relief of about 20 feet over the entire site. There is also a steeper slope in the southwest corner of the site that slopes from northeast to southwest with an overall relief of 40 feet.

3.2 Soils

In general, the soils we observed in the test pits can be divided into two groups. The 2 test pits excavated in the southern portion of the site generally consisted of 12 inches of organics overlying 4 to 4 ½ feet of medium dense silty sand with gravel (weathered till) overlying very dense silty sand with gravel (unweathered till) to the termination of the test pits.

The two test pits excavated in the north north-central portion of the site generally consisted of 12 to 18 inches of organics overlying 2 feet of loose to medium dense inorganic fill material overlying medium dense to dense sand with silt and gravel (recessional outwash). Test Pit TP-4 was terminated in the recessional outwash at approximately 15 feet below current site grades. Test Pit TP-3 had an approximately 3.5-foot layer of recessional outwash overlying very dense silty sand with gravel (unweathered glacial till).

The preceding discussion is intended to be a general review of the soil conditions encountered. For more detailed descriptions, please refer to the Test Pit Logs in Appendix A.

3.3 Groundwater

We observed minor to heavy groundwater seepage in 3 of the 4 test pits at 2 to 7.5 feet below current site grades. The groundwater observed at the shallow depths of 2 and 4 feet at Test Pits TP-1 and TP-2 is typical for sites underlain by glacial till. In general, surface water that infiltrates through the upper weathered soil zone becomes perched on the underlying, dense, cemented till. The cemented till has a relatively low permeability that impedes the downward migration of the infiltrated surface water. As a result, groundwater will accumulate, and when combined with a positive gradient, will tend to flow laterally along the till contact. Locally, such seepage is referred to as interflow.

The deeper groundwater seepage observed in Test Pit TP-3 at 7.5 feet below current site grades likely represents perched groundwater within the recessional outwash. The groundwater was observed approximately one-foot above the very dense unweathered glacial till.

Fluctuations in groundwater seepage levels will occur and should be expected on a seasonal and annual basis. Typically, groundwater seepage reaches maximum levels during and shortly following the wet winter months.

4.0 GEOLOGIC HAZARDS

4.1 Seismic

Liquefaction is a phenomenon where there is a reduction or complete loss of soil strength due to an increase in water pressure induced by vibrations. Liquefaction mainly affects geologically recent deposits of fine-grained sand that is below the groundwater table. Soils of this nature derive their strength from intergranular friction. The generated water pressure or pore pressure essentially separates the soil grains and eliminates this intergranular friction; thus, eliminating the soil's strength.

The site is underlain by medium dense to dense sand outwash and very dense glacial till soils. Based on the soil and groundwater conditions we observed, it is our opinion that the hazard for liquefaction occurring at this site during an earthquake and its associated risk or impacts is negligible.

Based on soil conditions observed in the test borings and our knowledge of the area geology, per Chapter 16 of the 2009 International Building Code (IBC), site class “D” should be used in structural design. Based on this site class, in accordance with the 2009 IBC, the following parameters should be used in computing seismic forces:

Seismic Design Parameters (IBC 2009)

| | |
|--|-------|
| Spectral response acceleration (Short Period), S_{Ms} | 1.379 |
| Spectral response acceleration (1 – Second Period), S_{M1} | 0.715 |
| Five percent damped .2 second period, S_{Ds} | 0.919 |
| Five percent damped 1.0 second period, S_{D1} | 0.477 |

Values determined using the United States Geological Survey (USGS) Ground Motion Parameter Calculator accessed on March 15, 2012 at the web site <http://earthquake.usgs.gov/research/hazmaps/design/index.php>.

4.2 Steep Slope Hazard

Section 20.25H.120 of the City of Bellevue Land Use Code defines a steep slope hazard area as “Slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area.”

There are two portions of the slope located in the southwest corner of the site that exceed 40 percent, have a rise of 10 feet and are greater than 1,000 square feet in area. Therefore, the site has two areas that would be classified as steep slope hazards as defined by the City of Bellevue Land Use Code. The code requires a minimum 50-foot buffer from the crest of the steep slope area.

Two test pits (TP-1 and TP-2) were excavated along the crest of this slope. Soil conditions in both test pits consisted of dense to very dense silty sand with gravel (weathered and unweathered glacial till). We also performed a reconnaissance of the slope. We did not observe indications of instability, emergent groundwater seepage, or significant erosion on the site. We observed the slope to be covered with a moderate growth of underbrush and mature trees. The trees were notably straight having no “pistol-butted” or damaged trunks. We did not observe ongoing or historic erosion or groundwater seepage out the face of the slope.

Downspout flow dispersion trenches are shown on the preliminary site plan above the steep slope areas. In our opinion, reducing the required buffer from 50 feet to 25 feet would adequately protect the steep slope hazard area from stability impacts associated with dispersion of stormwater runoff.

4.3 Landslide Hazard

Section 20.25H.120 of the City of Bellevue Land Use Code defines a landslide hazard area as “Areas of slopes of 15 percent or more with more than 10 feet of rise, which also display any of the following characteristics:

- a. Areas of historic failures, including those areas designated as quaternary slumps, earthflows, mudflows, or landslides.
- b. Areas that have shown movement during the Holocene Epoch (past 13,500 years) or that are underlain by landslide deposits.
- c. Slopes that are parallel or sub-parallel to planes of weakness in subsurface materials.

- d. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.
- e. Areas with seeps indicating a shallow groundwater table on or adjacent to the slope face.
- f. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action.”

Based on our observations of the site none of the above conditions (a-f) are present on the site, therefore it is our opinion that the site is not a landslide hazard area as defined by the City of Bellevue’s Land Use Code.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 General

Based on our study, there are no geotechnical considerations that would preclude development of the site as currently planned. The residential buildings can be supported on conventional spread footings bearing on competent native soils observed below the upper 12 to 18 inches of organic surface or on structural fill placed and compacted above these native soils. Pavement and floor slabs can be similarly supported. The existing fill material noted in Test Pits TP-3 and TP-4 appears to have been placed in order to create a flat surface for the railroad tracks. The soil is in a loose to medium dense condition and would not be suitable for support of new construction. The material should be removed or scarified and re-compacted below new building elements.

In our opinion, soil conditions at the site would be suitable for management stormwater using the downspout and sheet flow dispersion systems without impacting the overall stability of the site. The two dispersion systems located near the crest of the slope in the southwest corner of the site can be constructed in the locations shown on the preliminary plans without impacting the overall stability of the slope provided the minimum 25-foot setback from the steep slope areas is maintained.

The native glacial till and existing fill soils encountered at the site contain a significant amount of fines and will be difficult to compact as structural fill when too wet. The ability to use native glacial till and existing fill soils from site excavations as structural fill will depend on its moisture content and the prevailing weather conditions at the time of construction. If grading activities will take place during the winter season, the owner should be prepared to import free-draining granular material for use as structural fill and backfill. The cleaner recessional outwash soils observed should be suitable for structural fill year round.

Detailed recommendations regarding these issues and other geotechnical design considerations are provided in the following sections of this report. These recommendations should be incorporated into the final design drawings and construction specifications.

5.2 Site Preparation and Grading

To prepare the site for construction, all vegetation, organic surface soils, and other deleterious material should be stripped and removed from the site. Surface stripping depths of about 12 to 18 inches should be expected to remove the organic surface soils. In the developed portion of the site, demolition of existing structures should include removal of existing foundations, floor slabs, underground septic systems, railroad tracks and other buried utilities. Abandoned utility pipes that fall outside of new building areas can be left in place provided they are sealed to prevent intrusion of groundwater seepage and soil. Organic topsoil will not be suitable for use as structural fill, but may be used for limited depths in nonstructural areas.

The existing fill soils observed in the north portion of the site were in a loose to medium dense condition and appear to have been placed in order to create a flat surface for the railroad tracks. The material was inorganic and would be suitable for reuse as structural fill, but would not be suitable for support of new construction in the current condition. The material should be removed or scarified and re-compacted structurally prior to new construction.

Once clearing and stripping operations are complete, cut and fill operations can be initiated to establish desired grades. Prior to placing fill, all exposed bearing surfaces should be observed by a representative of Terra Associates to verify soil conditions are as expected and suitable for support of new fill. Our representative may request a proofroll using heavy rubber-tired equipment to determine if any isolated soft and yielding areas are present. If excessively yielding areas are observed, and they cannot be stabilized in place by compaction, the affected soils should be excavated and removed to firm bearing and grade restored with new structural fill. Beneath embankment fills or roadway subgrade if the depth of excavation to remove unstable soils is excessive, the use of geotextile fabrics, such as Mirafi 500X, or an equivalent fabric, can be used in conjunction with clean granular structural fill. Our experience has shown that, in general, a minimum of 18 inches of a clean, granular structural fill placed and compacted over the geotextile fabric should establish a stable bearing surface.

The native glacial till and existing fill soils encountered at the site contain a sufficient amount of soil fines that will make them difficult to compact as structural fill when too wet or too dry. The ability to use native glacial till and existing fill soils from site excavations as structural fill will depend on its moisture content and the prevailing weather conditions at the time of construction. If wet soils are encountered, the contractor will need to dry the soils by aeration during dry weather conditions. Alternatively, the use of an additive such as Portland cement, cement kiln dust (CKD), or lime to stabilize the soil moisture can be considered. If the soil is amended, additional Best Management Practices (BMPs) addressing the potential for elevated pH levels will need to be included in the Storm Water Pollution Prevention Program (SWPPP) prepared with the Temporary Erosion and Sedimentation Control (TESC) plan. The clean outwash sands observed in the northern portion of the site should be suitable for use as structural fill year round.

If grading activities are planned during the wet winter months, or if they are initiated during the summer and extend into fall and winter, the owner should be prepared to import wet weather structural fill. For this purpose, we recommend importing a granular soil that meets the following grading requirements:

| U.S. Sieve Size | Percent Passing |
|-----------------|-----------------|
| 6 inches | 100 |
| No. 4 | 75 maximum |
| No. 200 | 5 maximum* |

* Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc. should examine and test all materials imported to the site for use as structural fill.

Structural fill should be placed in uniform loose layers not exceeding 12 inches and compacted to a minimum of 95 percent of the soil's maximum dry density, as determined by American Society for Testing and Materials (ASTM) Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within one percent below to three percent above its optimum, as determined by this ASTM standard. In nonstructural areas, the degree of compaction can be reduced to 90 percent.

5.3 Excavations

All excavations at the site associated with confined spaces, such as utility trenches must be completed in accordance with local, state, or federal requirements. Based on current Washington Industrial Safety and Health Act (WISHA) regulations, the upper medium dense weathered till, existing fill and recessional outwash soils would be classified as Type C soils. The native dense to very dense unweathered till would be classified as Type A soils.

Accordingly, temporary excavations in Type C soils should have their slopes laid back at an inclination of 1.5:1 (Horizontal:Vertical) or flatter, from the toe to the crest of the slope. Side slopes in Type A soils can be laid back at a slope inclination of 0.75:1 or flatter. For temporary excavation slopes less than 8 feet in height in Type A soils, the lower 3.5 feet can be cut to a vertical condition, with a 0.75:1 slope graded above. For temporary excavation slopes greater than 8 feet, the slope above the 3.5-foot vertical portion will need to be laid back at a minimum slope inclination of 1:1. All temporary exposed slope faces should be covered with a durable reinforced plastic membrane during construction to prevent slope raveling and rutting during periods of precipitation.

The above information is provided solely for the benefit of the owner and other design consultants, and should not be construed to imply that Terra Associates, Inc. assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

5.4 Foundations

The residential buildings may be supported on conventional spread footing foundations bearing on competent native soils or on structural fills placed above competent native soils. Foundation subgrade should be prepared as recommended in Section 5.2 of this report. Perimeter foundations exposed to the weather should bear at a minimum depth of 18 inches below final exterior grades for frost protection. Interior foundations can be constructed at any convenient depth below the floor slab.

We recommend designing foundations for a net allowable bearing capacity of 2,500 pounds per square foot (psf). For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used. With structural loading as anticipated and this bearing stress applied, we estimate total foundation settlement would be less than one-half inch.

For designing foundations to resist lateral loads, a base friction coefficient of 0.35 can be used. Passive earth pressures acting on the sides of the footings can also be considered. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We recommend not including the upper 12 inches of soil in this computation because it can be affected by weather or disturbed by future grading activity. This value assumes the foundations will be constructed neat against competent native soil or backfilled with structural fill, as described in Section 5.2 of this report. The values recommended include a safety factor of 1.5.

5.5 Slab-on-Grade Floors

Slab-on-grade floors may be supported on subgrade prepared as recommended in Section 5.2 of this report. Immediately below the floor slabs, we recommend placing a four-inch thick capillary break layer of clean, free-draining, coarse sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slabs. Where the slab-on-grade floors expose recessional sands, a capillary break layer would not be necessary. A representative of Terra Associates, Inc. should observe the slab-on-grade areas to determine if the capillary break layer is needed.

The capillary break layer will not prevent moisture intrusion through the slab caused by water vapor transmission. Where moisture by vapor transmission is undesirable, such as covered floor areas, a common practice is to place a durable plastic membrane on the capillary break layer and then cover the membrane with a layer of clean sand or fine gravel to protect it from damage during construction, and aid in uniform curing of the concrete slab. It should be noted that if the sand or gravel layer overlying the membrane is saturated prior to pouring the slab, it will be ineffective in assisting in uniform curing of the slab, and can actually serve as a water supply for moisture transmission through the slab and affecting floor coverings. Therefore, in our opinion, covering the membrane with a layer of sand or gravel should be avoided if floor slab construction occurs during the wet winter months and the layer cannot be effectively drained. We recommend floor designers and contractors refer to the 2003 American Concrete Institute (ACI) Manual of Concrete Practice, Part 2, 302.1R-96, for further information regarding vapor barrier installation below slab-on-grade floors.

5.6 Stormwater Dispersion/Infiltration Feasibility

As mentioned above, development stormwater will be managed using downspout and sheet flow dispersion in accordance with Chapter 5 of the Department of Ecology's *Stormwater Management Manual for Western Washington*. The roof dispersion trenches on Lots 1 and 2 will be located near the crest of slopes with descending gradients in excess of 20 percent. Based on soil conditions observed at Test Pits TP-1 and TP-2, in our opinion, discharge of roof runoff using dispersion trenches would not adversely impact the stability of the slopes nor increase soil erosion.

In our opinion, the recessional outwash sands we observed below the two feet of existing fill in the north north-central portion of the site (Test Pits TP-3 and TP-4) would be favorable for considering use of infiltration as means to manage development stormwater as well. To determine the long-term design infiltration rate, we used Method 2 as outlined in Section 3.3.6, Volume III of the Department of Ecology's *Stormwater Management Manual for Western Washington*. This method correlates the long-term infiltration rate with the D_{10} grain size determined from gradation testing of the soils in accordance with ASTM Test Designation D-422. Gradation curves from laboratory testing on the soils are attached in Appendix A. On a preliminary basis, in accordance with Table 3.8 in Section 3.3.6 of the Ecology manual, a long-term infiltration rate of 2 inches per hour could be used. The area best suited for this consideration would be in the vicinity of Test Pit TP-4 where outwash extended to the 15-foot termination depth of the test pit and no groundwater seepage was evident.

5.7 Utilities

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) or the local utility districts specifications. As a minimum, trench backfill should be placed and compacted as structural fill, as described in Section 5.2 of this report. As noted, most native soils excavated on the site should be suitable for use as backfill material during dry weather conditions. However, if utility construction takes place during the wet winter months, it will likely be necessary to import suitable wet weather fill for utility trench backfilling.

5.8 Drainage

Surface

Final exterior grades should promote free and positive drainage away from the site at all times. Water must not be allowed to pond or collect adjacent to foundations or within the immediate building areas. We recommend providing a gradient of at least three percent for a minimum distance of ten feet from the building perimeters. If this gradient cannot be provided, surface water should be collected adjacent to the structures and disposed to appropriate storm facilities.

Subsurface

Where the fill material or glacial till soils are exposed at the foundation elevation, we recommend installing perimeter foundation drains adjacent to the shallow foundations. The drains can be laid to grade at an invert elevation equivalent to the bottom of footing grade. The drains can consist of four-inch diameter perforated PVC pipe that is enveloped in washed pea gravel-sized drainage aggregate. The aggregate should extend six inches above and to the sides of the pipe. Roof and foundation drains should be tightlined separately to the storm drains. All drains should be provided with cleanouts at easily accessible locations. Where the cleaner recessional outwash soils are exposed, foundation drains are not necessary.

5.9 Pavements

Pavement subgrades should be prepared as described in the Section 5.2 of this report. Regardless of the degree of relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. The subgrade should be proofrolled with heavy construction equipment to verify this condition.

The pavement design section is dependent upon the supporting capability of the subgrade soils and the traffic conditions to which it will be subjected. For the plat access roadway, with traffic consisting mainly of light passenger vehicles with only occasional heavy traffic, and with a stable subgrade prepared as recommended, we recommend the following pavement sections:

- Two inches of hot mix asphalt (HMA) over four inches of crushed rock base (CRB)
- Two inches of HMA over three inches of asphalt-treated base (ATB)

The paving materials used should conform to the Washington State Department of Transportation (WSDOT) specifications for ½-inch class HMA, ATB, and CRB.

Long-term pavement performance will depend on surface drainage. A poorly-drained pavement section will be subject to premature failure as a result of surface water infiltrating into the subgrade soils and reducing their supporting capability. To improve pavement performance, we recommend surface drainage gradients of at least two percent. Some longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks when they occur.

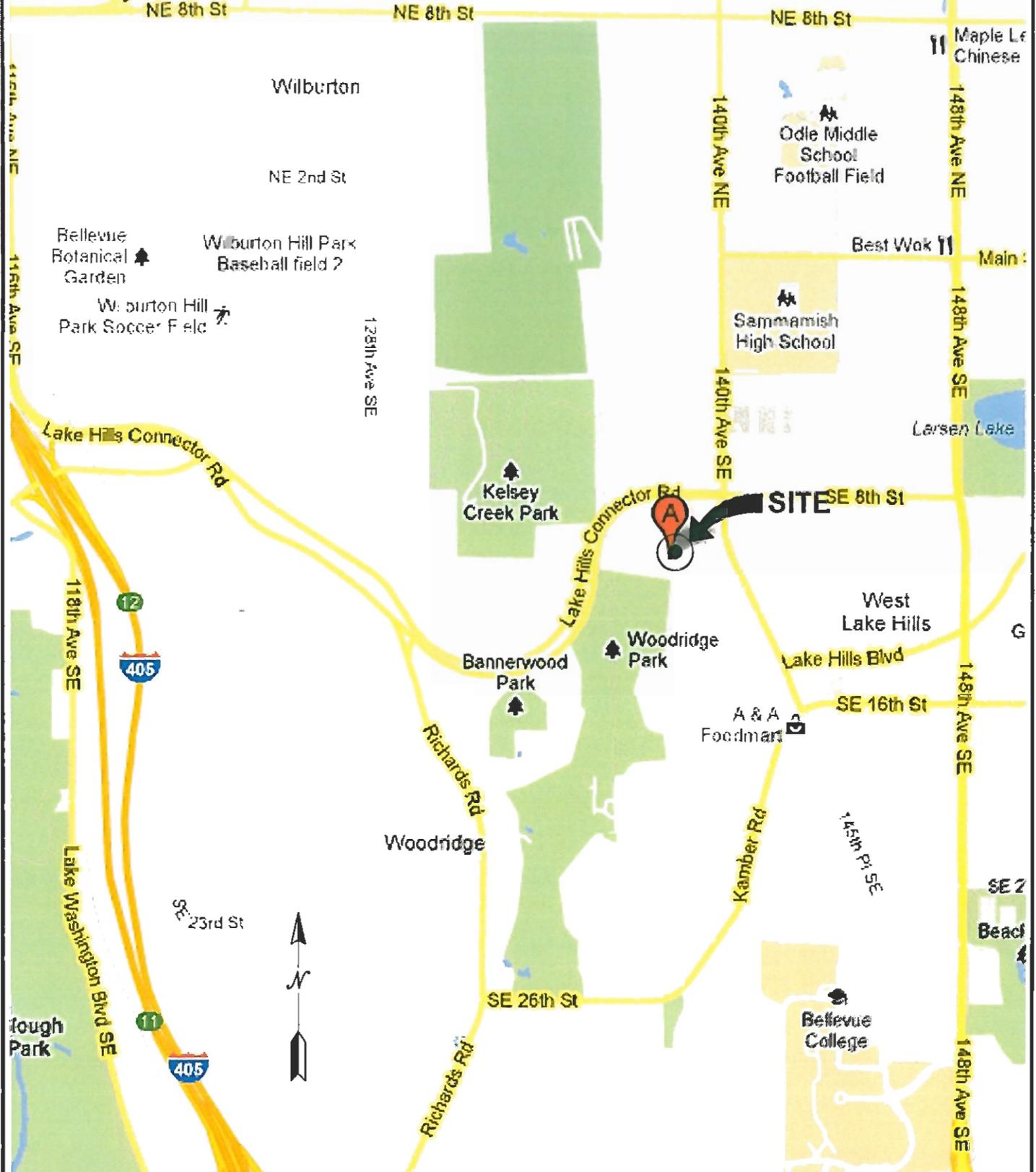
6.0 ADDITIONAL SERVICES

Terra Associates, Inc. should review final project designs and specifications in order to verify that earthwork and foundation recommendations have been properly interpreted and incorporated into project design. We should also provide geotechnical services during construction to observe compliance with our design concepts, specifications, and recommendations. This will allow for expedient design changes if subsurface conditions differ from those anticipated prior to the start of construction.

7.0 LIMITATIONS

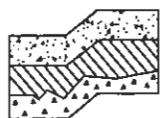
We prepared this report in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. This report is the copyrighted property of Terra Associates, Inc. and is intended for specific application to the Maus Property project in Bellevue, Washington. This report is for the exclusive use of Murray Franklyn and its authorized representatives.

The analyses and recommendations presented in this report are based on data obtained from the on-site soil test pits. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to reevaluate the recommendations in this report prior to proceeding with construction.



REFERENCE: GOOGLE MAPS, WWW.GOOGLE.COM, ACCESSED 3-15-2012

NOT TO SCALE



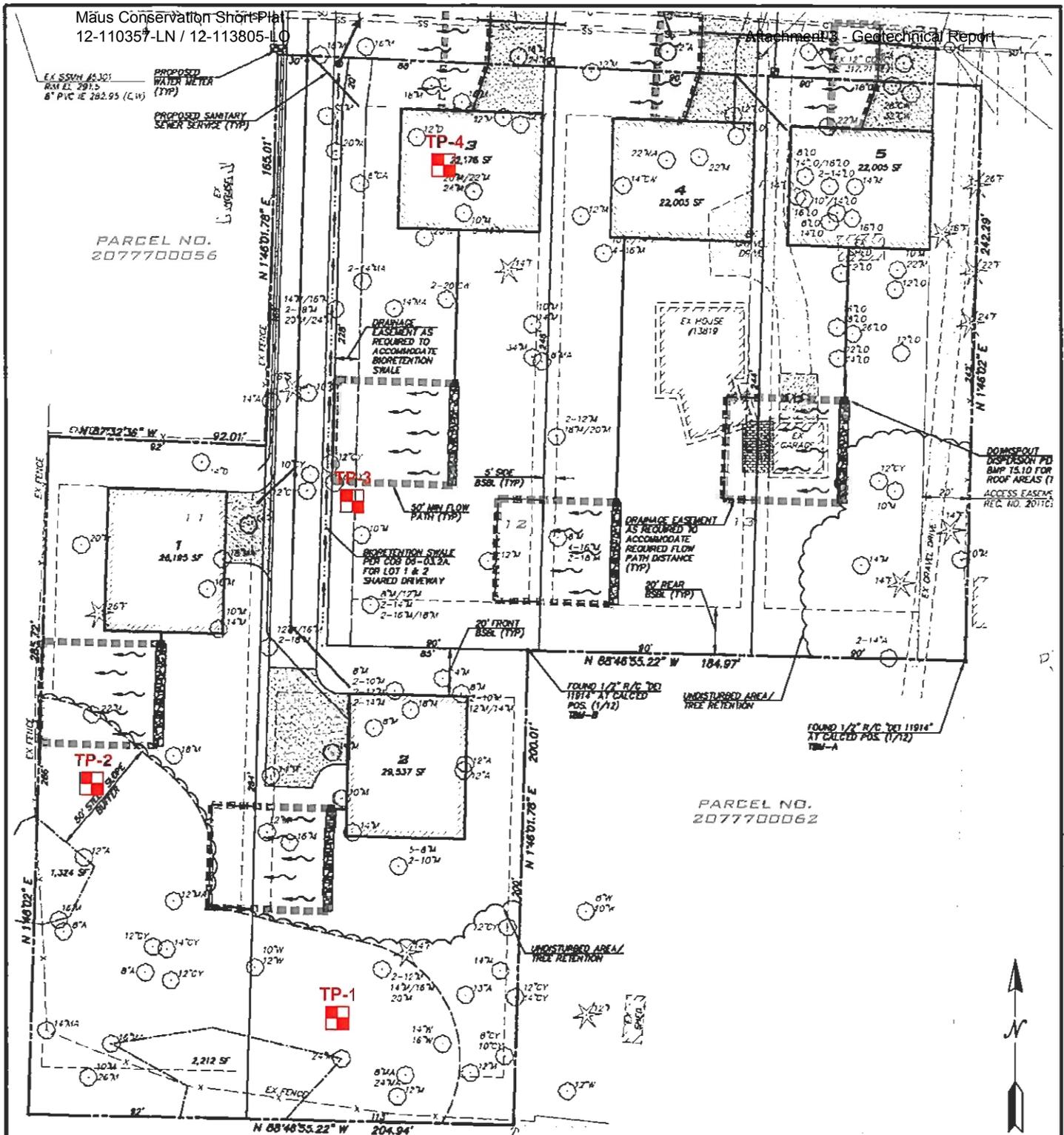
Terra Associates, Inc.
Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

VICINITY MAP
MAUS PROPERTY
BELLEVUE, WASHINGTON

Proj. No. T-6702

Date MAR 2012

Figure 1



NOTE:

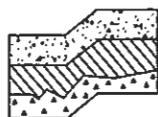
THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

LEGEND:

 APPROXIMATE TEST PIT LOCATION

REFERENCE:

SITE PLAN PROVIDED BY BLUELINE



Terra Associates, Inc.
Consultants in Geotechnical Engineering
Geology and Environmental Earth Sciences

EXPLORATION LOCATION PLAN
MAUS PROPERTY
BELLEVUE, WASHINGTON

Proj. No. T-6702

Date MAR 2012

Figure 2

**APPENDIX A
FIELD EXPLORATION AND LABORATORY TESTING**

**Maus Property
Bellevue, Washington**

On March 13, 2012, we observed the excavation of 4 test pits. The test pits were excavated using a trackhoe to a maximum depth of 15 feet below existing site grades. Test pit locations were determined in the field by measurements from existing site features. The approximate location of the test pits is shown on the attached Exploration Location Plan, Figure 2. The Test Pit Logs are presented on Figures A-2 through A-5.

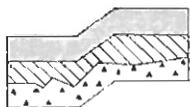
A geotechnical engineer from our office conducted the field exploration. Our representative classified the soil conditions encountered, maintained a log of each test pit, obtained representative soil samples, and recorded water levels observed during excavation. All soil samples were visually classified in accordance with the Unified Soil Classification System (USCS) described on Figure A-1.

Representative soil samples obtained from the test pits were placed in closed containers and taken to our laboratory for further examination and testing. The moisture content of each sample was measured and is reported on the individual Test Pit Logs. Grain Size Analysis was performed on selected samples. Results of the analysis are shown on Figures A-6 and A-7.

| MAJOR DIVISIONS | | | LETTER SYMBOL | TYPICAL DESCRIPTION |
|---|--|---|--|--|
| COARSE GRAINED SOILS More than 50% material larger than No. 200 sieve size | GRAVELS More than 50% of coarse fraction is larger than No. 4 sieve | Clean Gravels (less than 5% fines) | GW | Well-graded gravels, gravel-sand mixtures, little or no fines. |
| | | Gravels with fines | GP | Poorly-graded gravels, gravel-sand mixtures, little or no fines. |
| | | | GM | Silty gravels, gravel-sand-silt mixtures, non-plastic fines. |
| | | | GC | Clayey gravels, gravel-sand-clay mixtures, plastic fines. |
| | SANDS More than 50% of coarse fraction is smaller than No. 4 sieve | Clean Sands (less than 5% fines) | SW | Well-graded sands, gravelly sands, little or no fines. |
| | | | SP | Poorly-graded sands or gravelly sands, little or no fines. |
| | | Sands with fines | SM | Silty sands, sand-silt mixtures, non-plastic fines. |
| | | | SC | Clayey sands, sand-clay mixtures, plastic fines. |
| | | | FINE GRAINED SOILS More than 50% material smaller than No. 200 sieve size | |
| SILTS AND CLAYS Liquid limit is less than 50% | | CL | Inorganic clays of low to medium plasticity, (lean clay). | |
| | | OL | Organic silts and organic clays of low plasticity. | |
| | | SILTS AND CLAYS Liquid limit is greater than 50% | | MH |
| CH | Inorganic clays of high plasticity, fat clays. | | | |
| OH | Organic clays of high plasticity. | | | |
| HIGHLY ORGANIC SOILS | | | | PT |

DEFINITION OF TERMS AND SYMBOLS

| | | | | |
|--------------|--------------|---|----|--|
| COHESIONLESS | Density | Standard Penetration Resistance in Blows/Foot | I | 2" OUTSIDE DIAMETER SPLIT SPOON SAMPLER |
| | Very loose | 0-4 | II | 2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER |
| COHESIVE | Loose | 4-10 | ▼ | WATER LEVEL (DATE) |
| | Medium dense | 10-30 | Tr | TORVANE READINGS, tsf |
| | Dense | 30-50 | Pp | PENETROMETER READING, tsf |
| | Very dense | >50 | DD | DRY DENSITY, pounds per cubic foot |
| | | | LL | LIQUID LIMIT, percent |
| | | | PI | PLASTIC INDEX |
| | | | N | STANDARD PENETRATION, blows per foot |



Terra Associates, Inc.

Consultants in Geotechnical Engineering
Geology and
Environmental Earth Sciences

UNIFIED SOIL CLASSIFICATION SYSTEM
MAUS PROPERTY
BELLEVUE, WASHINGTON

Proj. No. T-6702

Date MAR 2012

Figure A-1

LOG OF TEST PIT NO. TP-1

FIGURE A-2

PROJECT NAME: Maus Property PROJ. NO: T-6702 LOGGED BY: CSD
 LOCATION: Bellevue, Washington SURFACE CONDS: Brush APPROX. ELEV: N/A
 DATE LOGGED: March 13, 2012 DEPTH TO GROUNDWATER: 2 Feet DEPTH TO CAVING: N/A

| DEPTH (FT.) | SAMPLE NO. | DESCRIPTION | CONSISTENCY/ RELATIVE DENSITY | W (%) | POCKET PEN. (TSF) | REMARKS |
|-------------|------------|--|----------------------------------|-------|-------------------|---------|
| 0 | | (12 inches ORGANICS) | | | | |
| | 1 | Brown silty SAND, fine to medium grained, moist, some mottling, some cementation, roots. (SM) (Weathered till) | Medium Dense | 23.2 | | |
| 5 | 2 | Gray silty SAND with gravel, fine to medium grained, moist. (SM) (Unweathered Glacial till) | Very Dense | 10.0 | | |
| 10 | | Test pit terminated at approximately 10 feet. Minor groundwater seepage observed at 2 feet. | | | | |
| 15 | | | | | | |

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. TP-3

FIGURE A-4

PROJECT NAME: Maus Property PROJ. NO: T-6702 LOGGED BY: CSD
 LOCATION: Bellevue, Washington SURFACE CONDS: Brush APPROX. ELEV: N/A
 DATE LOGGED: March 13, 2012 DEPTH TO GROUNDWATER: 7.5 Feet DEPTH TO CAVING: 0 to 3 Feet

| DEPTH (FT.) | SAMPLE NO. | DESCRIPTION | CONSISTENCY/ RELATIVE DENSITY | W (%) | POCKET PEN. (TSF) | REMARKS |
|-------------|------------|--|----------------------------------|-------|-------------------|---------|
| | | TOPSOIL: black sand with silt and gravel, fine to medium grained, moist. | Loose | | | |
| | 1 | FILL: brown silty sand with gravel, fine to medium grained, moist to wet, roots. | Loose | 17.8 | | |
| 5 | 2 | Red-brown silty SAND with gravel, fine to medium grained, moist. (SM) (Weathered till) | Medium Dense | 9.4 | | |
| 10 | 3 | Brown SAND with silt and gravel, fine to coarse grained, moist to wet. (SP-SM) (Recessional outwash) | Dense | 8.1 | | |
| 10 | 4 | Brownish-gray silty SAND with gravel, fine to medium grained, moist. (SM) (Unweathered Glacial till) | Very Dense | 6.7 | | |
| 15 | | Test pit terminated at approximately 10.5 feet. Moderate groundwater seepage observed at 7.5 feet. Minor caving observed between 0 and 3 feet. | | | | |

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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LOG OF TEST PIT NO. TP-4

FIGURE A-5

PROJECT NAME: Maus Property PROJ. NO: T-6702 LOGGED BY: CSD
 LOCATION: Bellevue, Washington SURFACE CONDS: Brush APPROX. ELEV: N/A
 DATE LOGGED: March 13, 2012 DEPTH TO GROUNDWATER: N/A DEPTH TO CAVING: 0 to 2 Feet

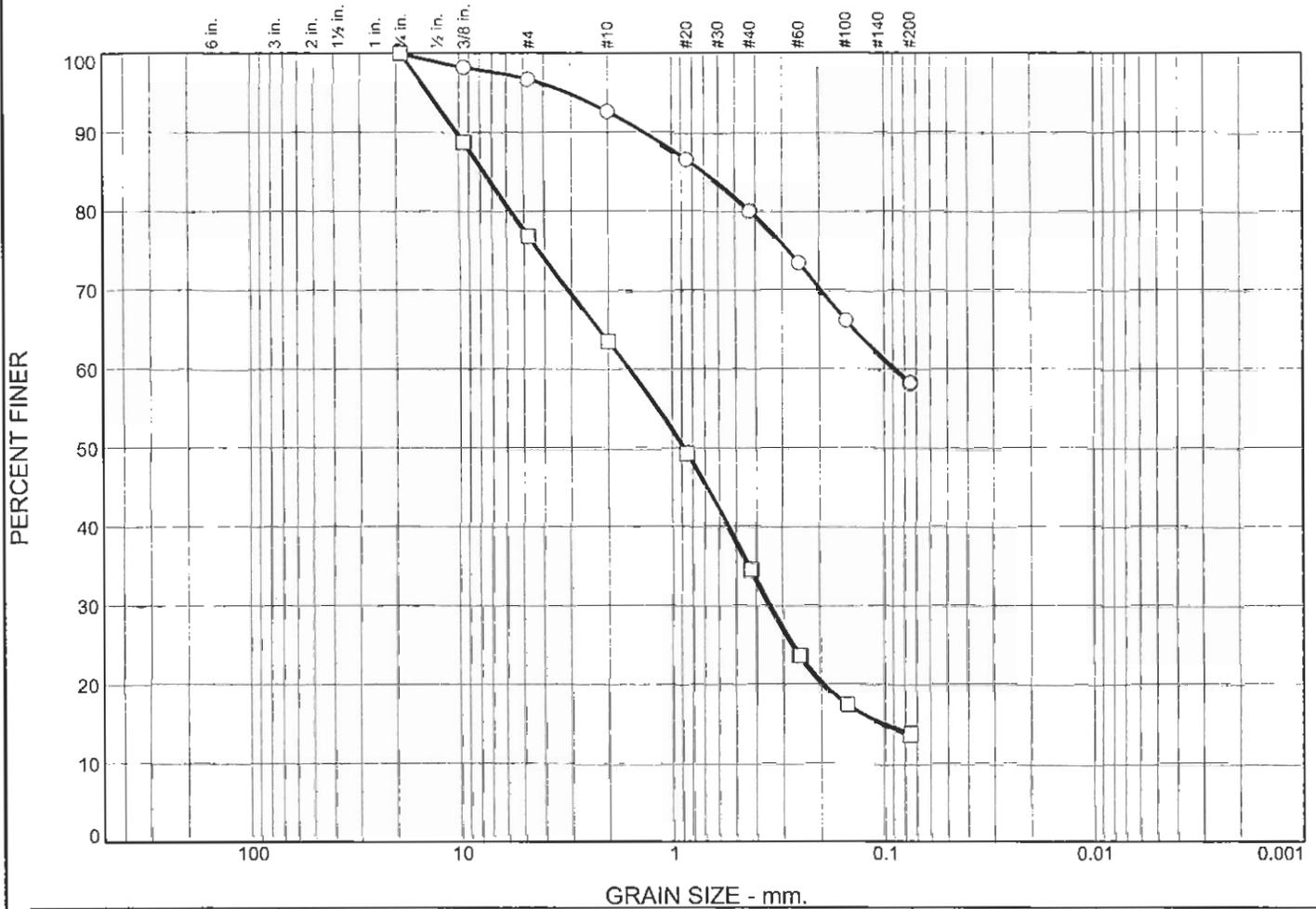
| DEPTH (FT.) | SAMPLE NO. | DESCRIPTION | CONSISTENCY/ RELATIVE DENSITY | W (%) | POCKET PEN. (TSF) | REMARKS |
|-------------|------------|--|----------------------------------|-------|-------------------|---------|
| | | FILL: gray silty sand with gravel, fine to medium grained, moist to wet, roots. | Loose | | | |
| 5 | 1 | Brownish-gray SAND with silt and gravel, fine to coarse grained, moist, occasional root. (SP-SM) (Recessional outwash) | Medium Dense | 11.2 | | |
| 10 | 2 | | Dense | 10.8 | | |
| 15 | 3 | | *At 12 feet soil becomes wet. | | 12.4 | |
| | | Test pit terminated at approximately 15 feet. No groundwater seepage observed. Minor caving observed between 0 and 2 feet. | | | | |

NOTE: This subsurface information pertains only to this test pit location and should not be interpreted as being indicative of other locations at the site.



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Particle Size Distribution Report Attachment B of Geotechnical Report



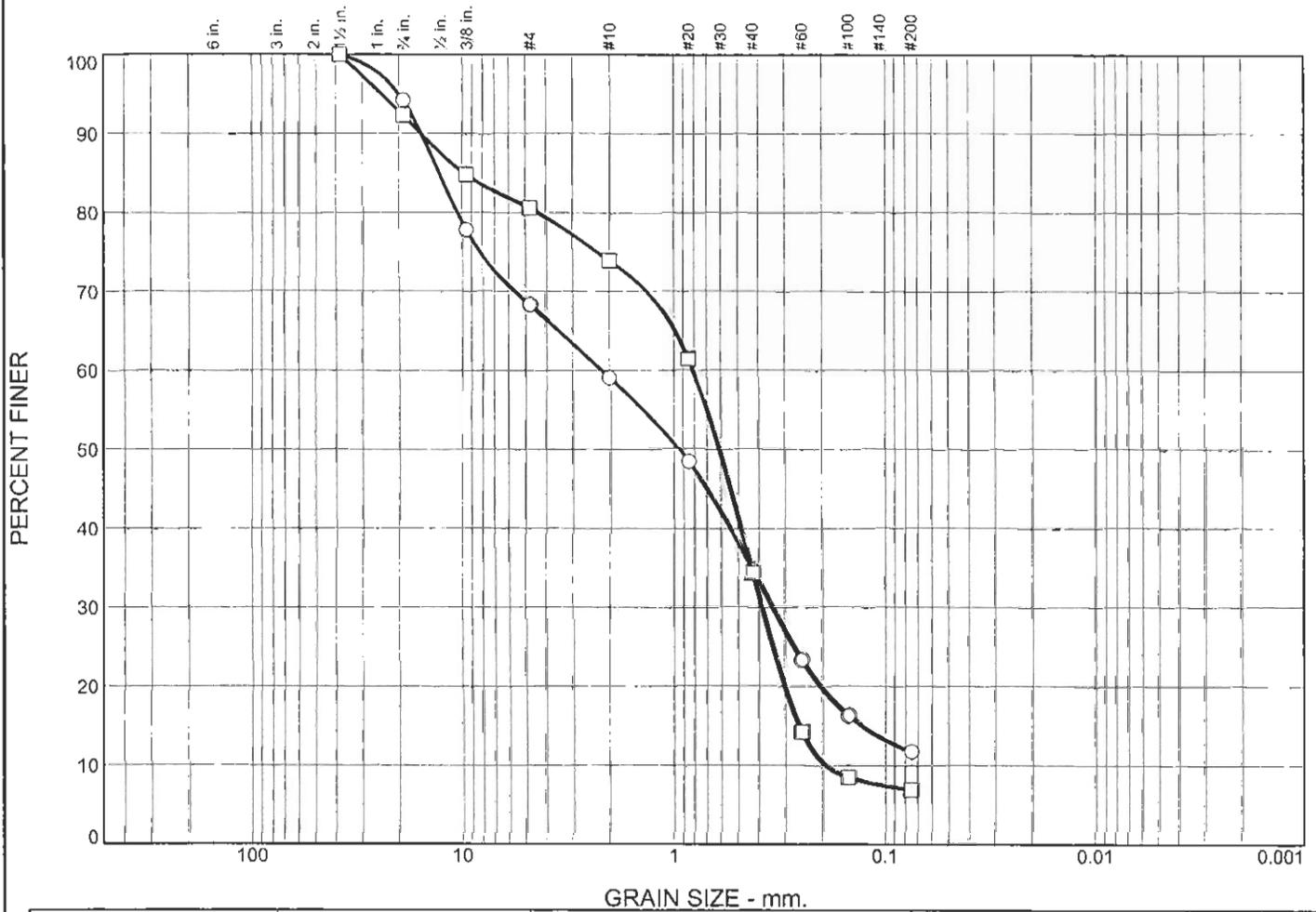
| | % +3" | % Gravel | | % Sand | | | % Fines | |
|---|-------|----------|------|--------|--------|------|---------|------|
| | | Coarse | Fine | Coarse | Medium | Fine | Silt | Clay |
| ○ | 0.0 | 0.0 | 3.3 | 4.1 | 12.6 | 21.8 | 58.2 | |
| □ | 0.0 | 0.0 | 23.2 | 13.4 | 28.9 | 20.8 | 13.7 | |

| LL | PL | D85 | D60 | D50 | D30 | D15 | D10 | Cc | Cu |
|----|----|--------|--------|--------|--------|--------|-----|----|----|
| ○ | | 0.7112 | 0.0891 | | | | | | |
| □ | | 7.6755 | 1.5985 | 0.8819 | 0.3468 | 0.1023 | | | |

| Material Description | | | | | | | USCS | AASHTO |
|--------------------------|--|--|--|--|--|--|------|--------|
| ○ Silty SAND | | | | | | | SM | |
| □ Silty SAND with gravel | | | | | | | SM | |

| | | | |
|--|--|--------------------------------------|---|
| Project No. T-6702 Project: Maus Property Bellevue, Washington ○ Location: Test Pit TP-1 □ Location: Test Pit TP-2 | Client: Murray Franklyn Depth: -2' Depth: -4' | Sample Number: 1 Sample Number: 1 | Remarks: ○ Tested on 3/17/2012 □ Tested on 3/17/2012 |
| Terra Associates, Inc. Kirkland, WA | | | Figure A-6 |

Particle Size Distribution Report



| | | % +3" | | % Gravel | | % Sand | | | % Fines | | |
|---|--|-------|----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|
| | | | | Coarse | Fine | Coarse | Medium | Fine | Silt | Clay | |
| ○ | | 0.0 | | 5.8 | 25.9 | 9.2 | 24.3 | 23.1 | 11.7 | | |
| □ | | 0.0 | | 7.7 | 11.7 | 6.7 | 39.5 | 27.5 | 6.9 | | |
| ⊗ | | LL | PL | D ₈₅ | D ₆₀ | D ₅₀ | D ₃₀ | D ₁₅ | D ₁₀ | C _c | C _u |
| ○ | | | | 12.8257 | 2.1740 | 0.9430 | 0.3441 | 0.1293 | | | |
| □ | | | | 9.7558 | 0.8100 | 0.6109 | 0.3850 | 0.2579 | 0.1935 | 0.95 | 4.19 |

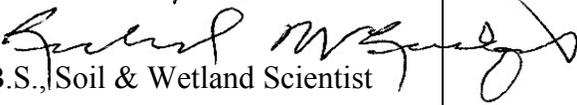
| Material Description | | | | | | | | USCS | AASHTO |
|---|--|--|--|--|--|--|--|-------|--------|
| ○ Poorly graded SAND with silt and gravel | | | | | | | | SP-SM | |
| □ Poorly graded SAND with silt and gravel | | | | | | | | SP-SM | |

| | |
|---|---|
| Project No. T-6702 Project: Maus Property Bellevue, Washington ○ Location: Test Pit TP-3 Depth: -8.5' Sample Number: 3 □ Location: Test Pit TP-4 Depth: -10' Sample Number: 2 | Client: Murray Franklyn Remarks: ○ Tested on 3/17/2012 □ Tested on 3/14/2012 |
| Terra Associates, Inc. Kirkland, WA | |

Figure A-7

TECHNICAL MEMORANDUM

June 25, 2012

| | |
|-------|---|
| To: | Mr. Mike Miller, Pacific Properties Mr. Thom Gebhard, Pacific Properties |
| From: | Richard W. Lundquist, M.S., Wildlife Biologist Raedeke Associates, Inc.  Christopher W. Wright, B.S., Soil & Wetland Scientist Raedeke Associates, Inc.  |
| RE: | Maus Bellevue Property –  Wetland Reconnaissance and Wildlife Habitat Assessment and Mitigation (R.A.I. No. 2011-047-001/002) |

At your request, Raedeke Associates, Inc. staff visited the Maus Property in Bellevue, Washington on December 15, 2011, and May 29, 2012. The purpose of our December 15, 2011 site visit was to identify and delineate any wetlands or streams on the property and to search for the presence or habitat of Federal- or State-listed endangered, threatened, sensitive, candidate, other priority, or monitored wildlife species (hereafter “species of concern”), Washington Department of Fish and Wildlife (WDFW)-designated priority habitats (hereafter “priority habitats”), or habitat associated with City of Bellevue-listed Species of Local Importance. Our May 29, 2012 site visit was primarily focused on data collection for a City of Bellevue Urban Wildlife Habitat Functional Assessment, following appropriate guidance (The Watershed Company 2009, revised 2010).

SITE LOCATION

The Maus Property is comprised of three parcels totaling approximately 2.75 acres in size, located at 13819 SE 10th Street Bellevue, Washington. The properties are identified as Tax Parcel Nos. 2077700055, 2077700060, and 2077700065. The northern boundary of the study area is SE 10th Street, single family residences are located east, west, and south of the investigated property.

METHODS

In order to identify potential wetland areas, we used the U. S. Army Corps of Engineers (COE) Wetlands Delineation Manual (Environmental Laboratory 1987). The COE, which requires use of the 1987 delineation manual, as amended, has federal regulatory jurisdiction of the dredging or filling of "Waters of the United States," including

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wetlands. As outlined in this methodology, the interaction of hydrophytic vegetation, hydric soil, and wetland hydrology must be present for an area to be classified as wetland. To be consistent with current regulations, field investigations were consistent with the Regional Supplement to the Corps of Engineers Delineation Manual: Western Mountains, Valleys, and Coast Region (COE 2010).

Prior to conducting our site visit, we accessed the online priority habitats and species (PHS) database maintained by WDFW (2011) to search for the occurrence or habitat of species of concern, or priority habitats that may be found on the site or in the vicinity. Our December 15, 2011 wildlife reconnaissance focused on searching for the presence of large stick-type nests, snags, hollow trees, large trees, tree cavities, mature forest, and pileated woodpecker foraging sign. Large stick nests are built and used by several species of concern, including bald eagles and great blue herons. Tree cavities are created and used by woodpeckers, including species of concern such as the pileated woodpecker, and are used secondarily by a host of bird and mammal species, including species of concern such as purple martins, various cavity-nesting duck species, and various bats. Hollow trees are used as daytime roosts for priority species including various bat species, as well as Vaux's swifts.

Our May 29, 2012 site visit was primarily focused on collection of data and other information for a City of Bellevue Urban Wildlife Habitat Functional Assessment, though we also noted the presence or sign of wildlife species and habitat features while on-site. Our study was designed to meet criteria outlined by The Watershed Company (2009, revised 2010). We collected data at regularly spaced sample plots located at least 50 feet from the property boundary and 100 feet apart. Within each sample plot, we recorded the cover by conifers, the percent cover by each vegetative strata, percent cover by invasive plants, the number of snags ≥ 4 inches dbh, and the number of logs ≥ 6 inches at the largest end. In addition, we recorded the diameter of the largest tree observed on-site, and the number of plant species that covered at least 10 square feet. Also, we conducted an off-site analysis of habitat connectivity to surrounding forested areas. The Functional Assessment worksheet, data, analyses, and an associated figure are provided in Appendix A.

RESULTS

We did not identify any wetlands or streams on the boundary. The eastern parcel of the property contains a single-family home and outbuildings. The area surrounding the house and garage is maintained as a landscaped lawn with ornamental shrub and tree plantings. The remaining portions of the property, including the entirety of the western and central parcels, are covered by a second-growth deciduous forest plant community with a moderately to fully closed canopy (Figure 1). Dominant tree species include bigleaf maple, black cottonwood, red alder, and blacklocust (primarily in the vicinity of the house in the eastern parcel), and a few scattered conifers, primarily Douglas fir (conifers averaged approximately 6% of the canopy cover). A generally dense understory of shrubs, vines, and forbs is found throughout the undeveloped portions of

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the investigated area. Dominant shrub species present include Himalayan blackberry, Indian plum, bitter cherry, salal, California blackberry, English laurel, English holly, beaked hazelnut, and English ivy. English ivy covers the ground in several places on the site, and has overgrown the trunks of many trees. Western swordfern and brackenfern were the most abundant herbaceous plant species present, each of which was patchily distributed. A scale model railroad track runs throughout the property.

The plant community observed on the site is not necessarily indicative of wetland conditions. Soils observed on the site are sandy loams and loams that do not exhibit redoximorphic features characteristically found in wetland soils. We did not see any evidence of surface or near-surface water during our December 15, 2011 site visit.

We observed a topographic trough offsite to the south of the western portion of the property. This topographic feature does not exhibit characteristics of a stream, such as defined channel or evidence of water flow. However, the City of Bellevue online parcel viewer (NWMaps.net) does depict a blue line associated with a stream in this vicinity. The City does not identify any stream features on the Maus property.

The majority of the western parcel (including almost everything but the northern panhandle) and the southwestern portion of the central parcel (including approximately half of the parcel area) are mapped as a peripheral portion of a large area designated as a “biodiversity area and corridors,” which is a WDFW-designated priority habitat (WDFW 2008). The information provided for this polygon (WDFW 2011) indicates that the full mapped area includes “several forested open space areas in the Kelsey Creek Basin.” “Biodiversity areas and corridors” (WDFW 2008) are partially defined as “*areas of habitat that are relatively important to various species of native fish and wildlife.*”

During the course of our site visits, we documented the presence of 23 bird species and the presence of one mammal, though a greater number of animal species are likely to inhabit or otherwise use the site during different times of the year. Most of the species we observed were fairly common year-round resident or neotropical migrant species, though we observed a pileated woodpecker on the property, which is a State candidate species (WDFW 2008). Some animals, such as salamanders and small mammals, are likely to live on the site year-round, but are sedentary and/or secretive and are unlikely to be detected without specific studies.

Snags provide important foraging habitat, as well as breeding and cover sites for a variety of vertebrate wildlife species, as well as invertebrates. We documented snags on the Maus Bellevue property, most of which were small (less than 10 inches diameter at breast height [dbh]) Scouler’s willow (*Salix scouleriana*), though several were approximately 14 to 16 inches dbh. On several of these snags, we observed large, oblong excavations that are indicative of pileated woodpecker foraging. It was difficult to ascertain if some of the snags on the property were used by pileated woodpeckers, as they were covered partially or entirely by English ivy.

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Large (>12 inches diameter at the large end) down logs provide cover, as well as foraging, breeding, and cover sites for a variety of invertebrates, small mammals, and amphibians. Woody debris of varying sizes was present on the property, which probably provides habitat for these animals. However, we documented few large logs on the site, and in general the woody debris on the site is not of a general density as to be particularly significant. However, it should be noted that some logs could easily be missed on the site due to the dense English ivy and periwinkle that covers the ground throughout much of the property.

We did not see any tree cavities, significant stumps, or hollow trees on the site, and the forest on the property does not meet the WDFW (2008) definition of mature forest.

We did not observe any evidence of nesting within the site or vicinity by hawks, eagles, or great blue herons during our field investigation. Site conditions were generally not conducive for large raptor nesting, as the majority of the trees onsite were not large enough and/or did not have branching patterns conducive to supporting large stick nests.

The Bellevue Urban Wildlife Habitat Functional Assessment for the property (Appendix A) provided a score of 45 points.

REGULATORY CONSIDERATIONS

The City of Bellevue (2011) regulates wildlife through protection of habitat associated with “Species of Local Importance.” Of the species listed as Species of Local Importance, we detected the presence of one – the pileated woodpecker. As described above, we observed a pileated woodpecker on the site on May 29, 2012, as well as several snags showing signs of pileated woodpecker foraging. We did not observe the presence or sign of any additional City of Bellevue-listed Species of Local Importance on the site during any of our field visits.

Pileated woodpeckers are relatively large birds with large home ranges (typically 1 to 2 or more square miles) that are found throughout low- to mid-elevation forested areas of Washington State (Lewis and Azerrad 2004). Because of their large territory size and willingness to fly over large areas of non-habitat to reach foraging areas, pileated woodpecker foraging sign is commonly found on snags within the Puget Sound region, in some cases regardless of the size of a given forested area or perceived degree of isolation and habitat quality. Pileated woodpeckers appear to use the Maus Bellevue property for foraging, and snags large enough to potentially be used for roosting or nesting are generally absent. Due to the size of the site and the typically large territory size occupied by this species, the Maus Bellevue site is likely to represent a small portion of the overall territory of the birds that use the property.

When habitat associated with a Species of Local Importance is located on a property, the City of Bellevue (2011) requires that WDFW management recommendations be implemented on the site for any such species present. WDFW management

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recommendations for pileated woodpeckers (Lewis and Azerrad 2004) focus on preservation of contiguous patches of forest habitat, as well as provision and maintenance of snags and decaying live trees of varying sizes for nesting, roosting, and foraging, where feasible.

On the Maus Bellevue site, the majority of the property would be cleared under the proposed development, which would result in the loss of a small amount of pileated woodpecker foraging habitat and reduce the overall size of the forest patch that this species occupies locally (Figure 2). However, two forested areas would be preserved on the site – one in the southeastern portion of Tax Parcel No. 2077700065 (southeastern part of the site) and one in the southern portions of Tax Parcel Nos. 2077700055 and 2077700060 (southwestern part of the site), thus minimizing to some degree the overall impact of the proposed development on pileated woodpeckers (Figure 2).

Under the proposed development plan, the forested area in the southwestern portion of the site would still be contiguous with the Kelsey Creek Basin forest. The preserved forest in the southeastern part of the site, though it would have limited habitat connectivity to the Kelsey Creek Basin forest, would still easily be accessed by pileated woodpeckers.

HABITAT MITIGATION PLAN

The WDFW (2005) site-specific management recommendations for pileated woodpeckers recognize that in the urban/suburban areas the availability of trees, snags, and habitat may be insufficient on a given site to implement the standard management recommendations (Lewis and Azerrad 2004, WDFW 2005) for western Washington (which entail retaining very large patches of forest with large snags of varying size classes). The site contains no snags of the sizes recommended to be retained as potential nest or roost sites (61-122 inches dbh), and only a few snags in the smallest size range recommended to provide foraging habitat (10-20 inches dbh) under the standard WDFW (Lewis and Azerrad 2004, WDFW 2005) management recommendations. Thus, it is reasonable to conclude that standard WDFW management recommendations cannot be applied to the property. In such cases, particularly in urban/suburban areas such as this, the WDFW (2005) recommends the following:

- Planners target conservation of larger forest patches (>74 acres), and specifically areas with the largest trees and snags;
- Where large forest patches are unavailable, smaller forest patches (>7 acres) be retained;
- Retain and create snags and retain live trees in the largest size classes available.

The entire Maus property is smaller than even the small forest patches recommended for retention, so the first two recommendations are not practical for the site. As stated above, clearing of the Maus property would remove a small area of forest that is contiguous with

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the larger Kelsey Creek Basin forest. However, two areas on the site would be retained that would preserve some habitat for pileated woodpeckers.

In this context, to provide compensation for the anticipated loss of potentially usable snags for pileated woodpeckers on the Maus Bellevue site, we recommend the following actions in order to provide foraging habitat for this candidate species, as well as improve overall wildlife habitat of the retained forest habitat:

- 1) All standing live trees and snags within the two retained open space areas, with evidence of use by woodpeckers, will be retained (Figure 2). We recognize that highly decomposed trees and snags may present a possible safety hazard and may therefore need to be removed. If any of these or other trees and snags greater than 10 inches dbh are required to be felled for safety reasons within retained forest areas, they would be cut to a height of 15 to 20 feet and retained, where feasible and given safety considerations. In instances where tree trunks may be retained in this manner, the remainder of the tree would be dropped and left in place in the retention areas to provide downed logs which may be used by foraging woodpeckers. Large limbs may be removed from these trees if necessary due to space availability.
- 2) In order to compensate for loss of snags as potential foraging habitat, we recommend creating up to 6 snags from existing live trees within the retained open space areas, provided that the minimum number of live trees required under the City of Bellevue's tree retention code can be retained as well within the open space areas. We do not recommend "planting" snags from trees removed from the site, as this may unnecessarily disturb and damage existing vegetation and soils within the retained areas, particularly the sloped areas. Existing trees should be cut to a height of 15 to 20 feet and girdled near the base, where feasible given safety considerations. Deciduous trees such as alder, willow, and cherry are preferred, and defective trees are preferred over healthy trees. The specific trees to be used for snag creation (see Figure 2) would be confirmed by the project biologist at the time of site clearing.
- 3) In addition, 6 logs at least 15 feet long will be selected and placed within the retained open space areas to enhance retained forested open space for pileated woodpecker foraging. These may be selected during tree clearing operations from trees to be removed from the site, or from portions cut from trees to be made into snags, as appropriate. Pileated woodpeckers use downed logs greater than or equal to 12 inches in diameter at the largest end as foraging sites, but to a lesser extent in western Washington than east of the Cascade Range (Aubry and Raley 2002, Bull 1987). Aubry and Raley (2002) suggested that in wet western Washington forests, the overall moisture content of logs lying on the ground may be sufficient to prevent infestation of insects that pileated woodpeckers feed on. However, they further documented that downed logs that were used by woodpeckers were typically those raised off the ground (Aubry and Raley 2002).

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The logs placed in the open space areas will provide both current and future foraging sites for pileated woodpeckers once the logs age and become invaded by carpenter ants and other insects. Logs will be chosen for placement on the following criteria:

- a. Size – Larger logs will be selected and shall be at least 15 feet long and at least 12 inches in diameter at the large end.
 - b. Defect – Logs with current defects such as heart-rot, carpenter ant infestation, or other insect damage are preferred. However, trees that appear to have been heavily used as foraging sites in the past with no recent sign of use by woodpeckers should not be used.
 - c. Species – Preference is for alder logs and Douglas-fir, where available. Based on our habitat assessment, only a few snags with woodpecker forage sign were observed, and most of these were relatively small Scouler's willow. For mitigation tree selection purposes, red alder tends to decay at a more rapid rate than conifers; therefore, a mix of both types will provide foraging habitat over a longer period of time.
 - d. Placement – Logs would be placed in the retained open space. These logs will be clustered in pairs such that for each log directly on the ground, one log will be laid over it to keep them relatively dry. Exact locations for log placement would be determined in the field by the project biologist to minimize damage to native vegetation that may result from this work.
- 4) In addition to snags and logs, we recommend planting of conifer trees to enhance overall wildlife habitat within the open space areas and to provide some screening from neighboring properties. We recommend planting conifer trees along the perimeter of the retained open space areas, within rear lot areas, and along the western and eastern perimeter of the project site (Figure 2). Conifer plantings should be spaced 12 to 15 feet apart and consist of a mix of Douglas fir and western red cedar, depending on site conditions. Douglas fir should be planted in more exposed areas, and cedar should be planted in more shady areas.

LIMITATIONS

We have prepared this report for the exclusive use of Pacific Properties, Inc. and their consultants. No other person or agency may rely upon the information, analysis, or conclusions contained herein without permission from Pacific Properties, Inc.

The determination of ecological system classifications, functions, values, and boundaries is an inexact science, and different individuals and agencies may reach different conclusions. With regard to wetlands, the final determination of their boundaries for regulatory purposes is the responsibility of the various agencies that regulate development activities in wetlands. We cannot guarantee the outcome of such

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determinations. Therefore, the conclusions of this report should be reviewed by the appropriate regulatory agencies.

We warrant that the work performed conforms to standards generally accepted in our field, and prepared substantially in accordance with then-current technical guidelines and criteria. The conclusions of this report represent the results of our analysis of the information provided by the project proponent and their consultants, together with information gathered in the course of the study. No other warranty, expressed or implied, is made.

Thank you for the opportunity to prepare this material for you. Please let us know if you have any questions or need additional information.

June 25, 2012

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FIGURE 1
 Attachment 4 - Habitat Report
MAUS BELLEVUE
 BELLEVUE, WA
 EXISTING CONDITIONS

LEGEND

-  PROJECT BOUNDARY
-  EXISTING CONTOURS
-  SIGNIFICANT CONIFER TREE TO BE RETAINED
-  SIGNIFICANT DECIDUOUS TREE TO BE RETAINED
-  CONIFER TREE TO BE RETAINED
-  DECIDUOUS TREE TO BE RETAINED
-  SIGNIFICANT CONIFER TREE TO BE REMOVED
-  SIGNIFICANT DECIDUOUS TREE TO BE REMOVED
-  CONIFER TREE TO BE REMOVED
-  DECIDUOUS TREE TO BE REMOVED



9510 Stone Avenue North
 Seattle, WA 98103

| |
|--|
| RAI # 2011-047 |
| DATE 6-25-2012 |
| DRAWN BY: AC |
| Base information: Provided by The Blueline Group, 25 Central Way, Suite 400 • Kirkland, WA 98033 on 6/12/2012. |

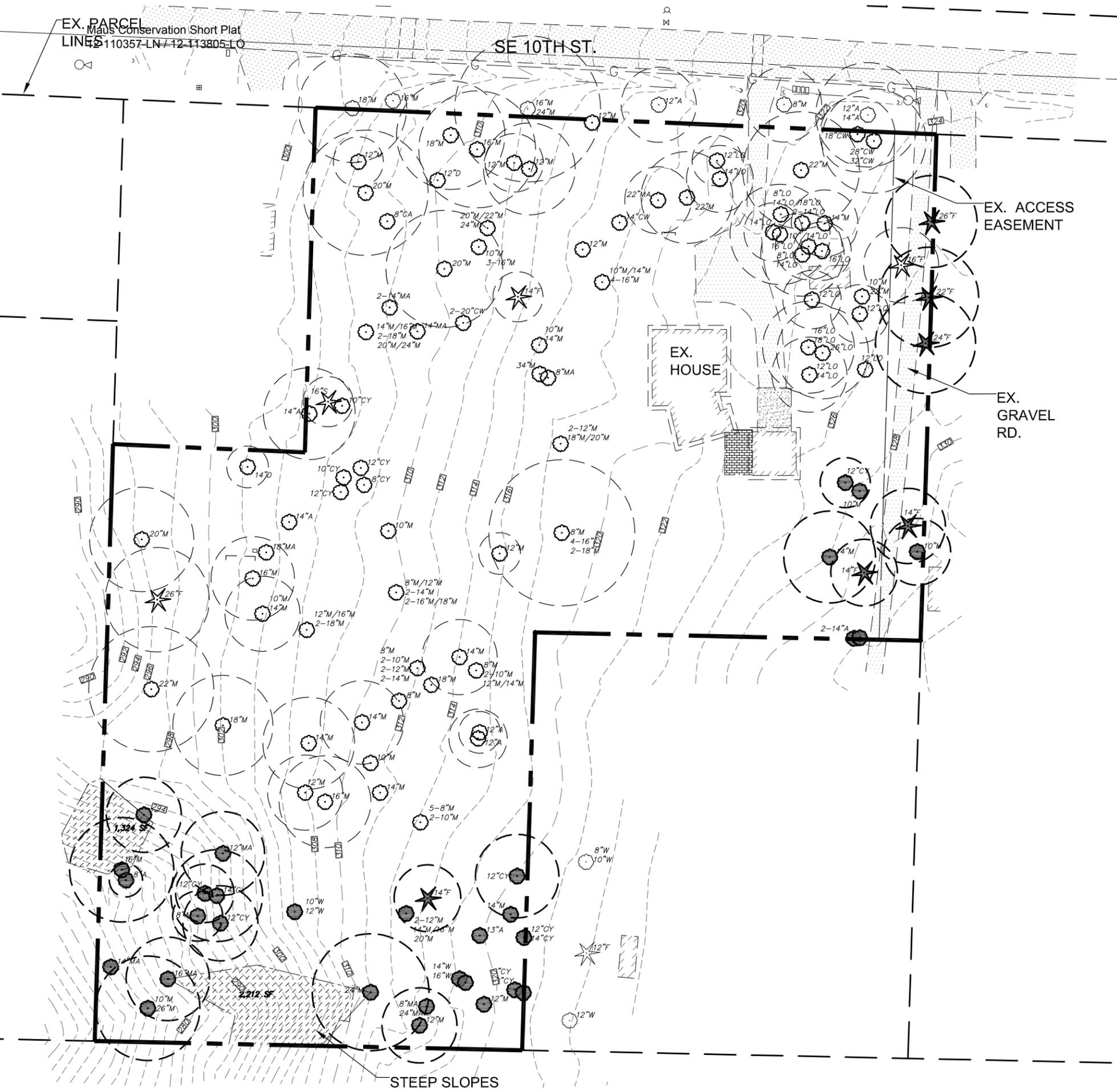


FIGURE 2
PACIFIC PROPERTIES, INC.
MAUS BELLEVUE
 BELLEVUE, WA
 Conservation Short Plat
 110357-N / 12-113805-LO

HABITAT MITIGATION PLAN

LEGEND

-  PROJECT BOUNDARY
-  EXISTING CONTOURS
-  PROPOSED CONCEPTUAL GRADES
-  SIGNIFICANT CONIFER TREE TO BE RETAINED
-  SIGNIFICANT DECIDUOUS TREE TO BE RETAINED
-  CONIFER TREE TO BE RETAINED
-  DECIDUOUS TREE TO BE RETAINED
-  SNAG CREATION-CUT TREE TO 15-20 FT. TALL (PER REPORT TEXT)
-  CONIFER PLANTING AREA- PLANTINGS TO CONSIST OF A MIX OF DOUGLAS FIR AND WESTERN RED CEDAR AT A 12-15 SPACING (PER REPORT TEXT)

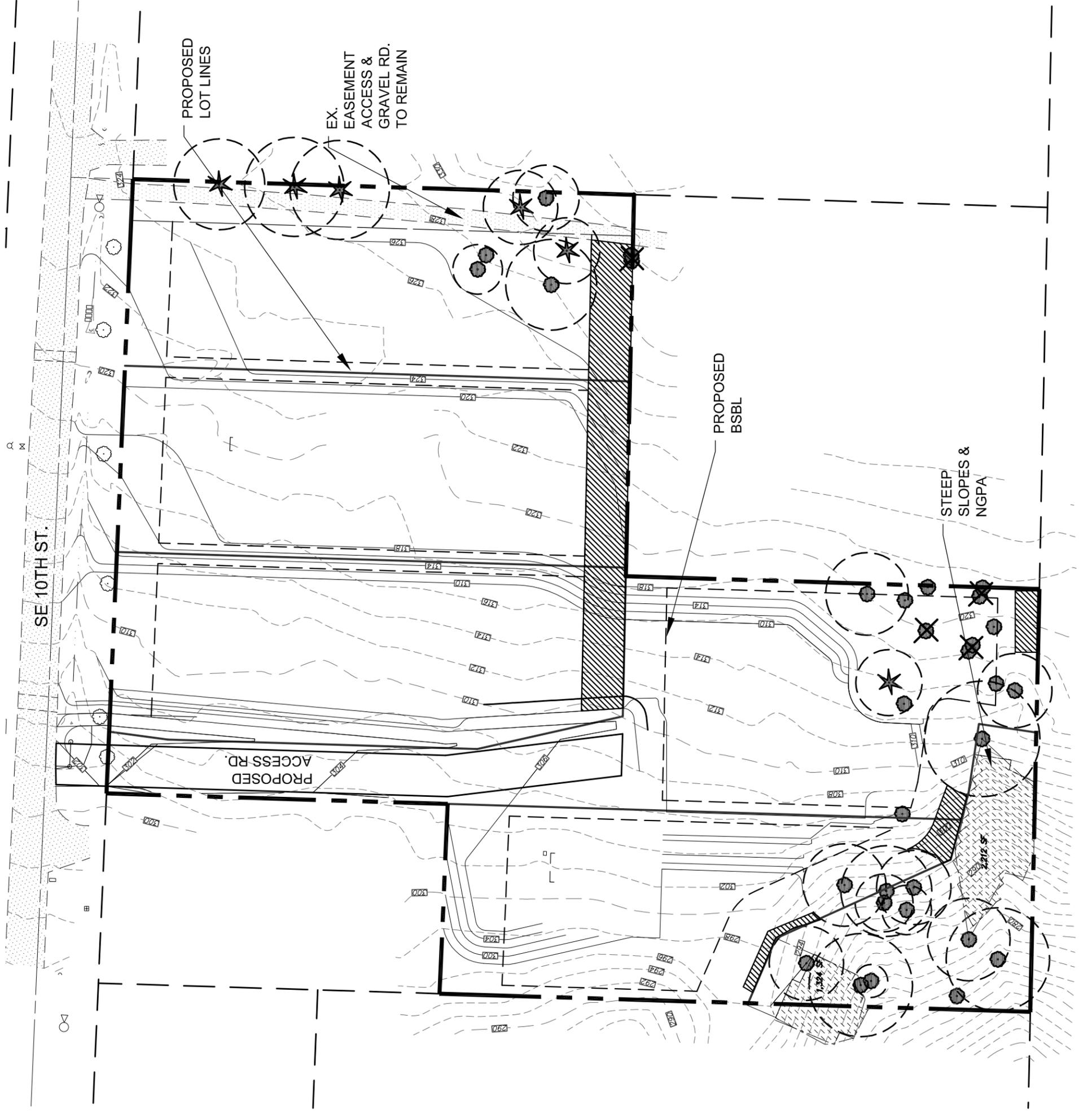


Attachment 4 - Habitat Report

Raedeke
 Associates, Inc.
 9510 Stone Avenue North
 Seattle, WA 98103

RAI # 2011-047
 DATE: 6-25-2012
 DRAWN BY: AC

Base information: Provided by The Blueline Group, 25 Central Way, Suite 400 - Kirkland, WA 98033 on 6/12/2012.



Fi

APPENDIX A

City of Bellevue Urban Wildlife Habitat Functional Assessment

City of Bellevue
FUNCTIONAL ASSESSMENT TOOL
for Upland Habitat

Property address 13819 SE 10th. St., 98005
 Location Range SE Township 24 Section 3
 Parcel number 2077700055, -060, and -065
 Property owner _____
 Telephone number () - - _____

Project name Maus Bellevue
 Project contact _____
 Telephone number () - - _____
 Address _____

Staff Joel Merriman

Date(s) of site visit(s) 12/15/11, 5/29/12

Washington Department of Fish and Wildlife Priority Habitat and Species (PHS) data obtained? Y/N Y (PHS online)

| 1.0 | PROPERTY DESIGNATION | Zone A | Zone B | Zone C | Zone D | | Zone |
|-----|--|--------------------------------------|--|--|--|--|-------|
| 1.1 | Existing impervious surface | >90% | 50-90% | 20-50% | 0-20% | | D |
| 2.0 | LANDSCAPE PARAMETERS | No points | 1 point | 2 points | 3 points | Additional points | Total |
| 2.1 | Land use/development density | Zone A | Zone B | Zone C | Zone D | | 3 |
| 2.2 | *Occurrence (number) of habitat types | 0 | 1 | 2 | 3+ | | 3 |
| 2.3 | **Proximity of known critical areas (distance to edge) | >2,500 ft | <2,500 ft | <1,200 ft | <100 ft | +1 point if contiguous with critical area | 4 |
| 2.4 | Habitat connectivity and corridors | No connection to other habitat areas | ≥25-foot-wide connection to vegetated areas of at least 1 acre | ≥50-foot-wide connection to vegetated areas of at least 50 acres but not listed parks*** | ≥50-foot-wide connection King County wildlife network or listed parks*** | +1 point for ≥150-foot-wide connection King County wildlife network or listed parks*** | 2 |

W/in PCD Zone?

Biodiversity Area / Corridor Wetland Stream

City of Bellevue
FUNCTIONAL ASSESSMENT TOOL
for upland habitat

Maus

| | | | | | | | |
|-----|---|---|--|---|--------------------------|--|-------|
| 2.5 | Patch size | <0.-1.0 ac | 1.0-5.0 ac | >5-10 ac | 10-42 acres | >42 acres = 4 points | 4 |
| 2.0 | LANDSCAPE PARAMETERS | No points | 1 point | 2 points | 3 points | Additional points | Total |
| 2.6 | *Interspersion of habitat patches (excluding patches <1 ac in area) | No or isolated patch (no others within 0.5-ac circle) | Low | Moderate | High | +1 point if wildlife network or listed park is included | 3 |
| 3.0 | LOCAL PARAMETERS | No points | 1 point | 2 points | 3 points | Additional points | Total |
| 3.1 | Size of native trees on site | No significant trees on site | 6-12" dbh tree(s) present | 12-20" dbh tree(s) present | >20" dbh tree(s) present | +1 point if tree(s) >30" dbh are present | 3 |
| 3.2 | Coniferous component | No conifers on site | Conifers very sparse or present in understory only | Conifers co- or sub-dominant in overstory | Conifers dominant | +1 point if conifers >30" dbh are present | 1 |
| 3.3 | Percent cover (sample vegetated areas only) | | | | | | |
| | Ground layer (0-2.3 ft) (5-ft radius) | 0% | 0-25% | 25-50% | 50%+ | +1 point for cover >75%; -1 point if mowed grass is >50% | 3 |
| | Shrub layer (2.3-25 ft) (10-ft radius) | 0% | 0-25% | 25-50% | 50%+ | +1 point for cover >75% | 2 |
| | Canopy (>25 ft) (30-ft radius) | 0% | 0-25% | 25-50% | 50%+ | +1 point for cover >75% | 3 |
| 3.4 | Vegetative vertical structural diversity (foliage height diversity) | FHD = 0 | FHD < 0.70 | FHD = 0.70-0.90 | FHD > 0.90 | | 3 |

City of Bellevue
FUNCTIONAL ASSESSMENT TOOL
for Upland Habitat

| | | | | | | | |
|------------------------------------|--------------------------------------|--|--|---|---|---|--------------|
| 3.5 | Vegetative species richness | 0-1 species | 2-5 species | 6-19 species | 20+ species | | 3 |
| 3.6 | Invasive species component | >75% cover | 25-75% cover | 10-25%cover | <10% cover | | 1 |
| 3.0 | LOCAL PARAMETERS | No points | 1 point | 2 points | 3 points | Additional points | Total |
| 3.7 | Proximity to year-round water | >1.0 mi or artificial feature with maintained /invasive buffer present within 0.3-1 mi | 0.3-1.0 mi or artificial feature with maintained/ invasive buffer present within <0.3 mi | <0.3 mi or artificial feature with maintained/ invasive buffer present within patch | Natural water feature present within patch with native buffer | | 2 |
| 3.8 | Snags (≥4 in dbh) | No snags on site | 1/ac or fewer | 2-6/ac | >7/ac | Add 0.5 point for each >20 in dbh and 1 point for each >30 in dbh | 3 |
| 3.9 | Other habitat features | None | 1 | 2-4 | 5 or more | | 2 |
| Landscape parameters points | | | | | | | 38 |
| Local parameters points | | | | | | | 7 |
| TOTAL POINTS | | | | | | | 45 |

check

* Use circle of the appropriate size for the property's zone:

- Zone A – 0.5 ac
- Zone B – 5.0 ac
- Zone C – 100 ac
- Zone D – 250 ac

** PHS data required for sites in Zone D

Downed wood
Unused structures

City of Bellevue
FUNCTIONAL ASSESSMENT TOOL
for upland habitat

***Parks: Mercer Slough, Phantom Lake wetland complex, Larson Lake wetland complex, Cougar Mountain Regional Wildland Park, Weowna Park; King County wildlife network



NORTH

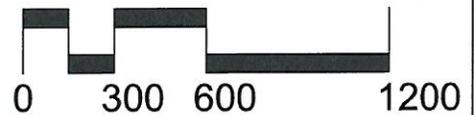


FIGURE X
MAUS PROPERTY
BELLEVUE, WA
**WILDLIFE HABITAT FUNCTIONAL
ASSESSMENT**

| |
|---|
| RAI # 2011-047 |
| DATE: 5-21-2012 |
| DRAWN BY: AC |
| Source: Google Inc. (2009). Google Earth (Version 5.1.3533.1731) [Software]. Available from earth.google.com/. Accessed on 5/23/12. |

Raedeke
Associates, Inc.

9510 Stone Avenue North
Seattle, WA 98103



(C) 2008 King County

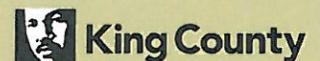
Legend

-  Highlighted Feature
-  County Boundary
-  Contours (5ft light)
-  100;500;1000 (cont)

-  Other
-  Highways
-  Streets
-  Highway (cont)

-  Arterials
-  Local
-  Parcels
- 2009 Color Aerial Photos (6in)**

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.



| Plot # | 30' rad. % Conifer in Canopy | 5' rad. % Cover 0-2.3 ft. | 10' rad. % Cover 2.3-25 ft. | 30' rad. % Cover >25 ft. | 30' rad. % Invasive Cover | 30' rad. # Snags >4" dbh | 30' rad. # Downed Wood >6" |
|-------------|------------------------------------|---------------------------------|-----------------------------------|--------------------------------|---------------------------------|--------------------------------|----------------------------------|
| 1 | 30 | 80 | 60 | 65 | 5 | 2 | 3 |
| 2 | 0 | 40 | 50 | 60 | 5 | 0 | 6 |
| 3 | 0 | 35 | 20 | 90 | 30 | 1 | 3 |
| 4 | 0 | 95 | 10 | 15 | 90 | 1 | 3 |
| 5 | 0 | 95 | 40 | 75 | 95 | 2 | 4 |
| 6 | 0 | 75 | 25 | 45 | 5 | 0 | 0 |
| 7 | 0 | 90 | 25 | 60 | 80 | 1 | 3 |
| 8 | 20 | 40 | 50 | 85 | 15 | 0 | 1 |
| 9 | 0 | 35 | 50 | 80 | 15 | 0 | 0 |
| Avg. | 6 | 65 | 37 | 64 | 38 | 0.8 | 2.6 |

**Native Plant Species
>10 s.f.**

**Vegetative Vertical
Structural Diversity**

| | | |
|------|------|------|
| ACMA | RUUR | POMU |
| PSME | OECE | PTAQ |
| ARME | FRPU | LOCI |
| PREM | COCO | |
| ALRU | GASH | |
| POBA | HODI | |
| PISI | RUPA | |
| | ROGY | |
| | MAAQ | |
| | VAPA | |
| | SASC | |
| | SPDO | |

| Stratum | p_i | $p_i \ln p_i$ |
|-------------|-------|---------------|
| 0-2.3 feet | 0.39 | -0.37 |
| 2.3-25 feet | 0.22 | -0.33 |
| >25 feet | 0.39 | -0.37 |
| Sum(-1) | | 1.07 |

Non-Native Plant Species >10 s.f.

| | | |
|-------------|-------------|-----------------|
| ROPS | RUAR | HEHE |
| Sorbus spp. | Laurel spp. | GERO |
| | ILAQ | Periwinkle spp. |
| | CRMO | |

Total = 22 native species

Largest Tree Seen Onsite: 26.5" dbh Douglas fir

To see all the details that are visible on the screen, use the "Print" link next to the map.

