Project Narrative for development of Single-Family Residences on Mercer Island

Existing Conditions

The project site comprises two parcels, #5315100458 and #5315100455, located at 2430 and 2436 – 74th Avenue SE, Mercer Island, WA. The site is currently undeveloped and primarily consists of a mixed forest with open shrub patches. The land slopes from west to east, creating a natural gradient that influences water runoff and vegetation patterns across the site.

A detailed wetland assessment, conducted on February 22, 2022 by Altmann Oliver Associates, LLC, identified both parcels as part of a Category IV wetland, designated as Wetland B. This wetland occupies the south-central portion of parcel #5315100458 and the north portion of parcel #5315100455. Wetland B is a Slope Hydrogeomorphic (HGM) class wetland covering an area of 2,010 square feet.

Vegetation on the site reflects a typical mixed forest ecosystem, with the dominant tree species include:

- Douglas fir (pseudotsuga menziesii)
- Western red cedar (Thuja Plicata)
- Bigleaf maple (acer macrophyllum)

Groundcover is populated with a variety of shrubs and herbaceous plants, such as:

- Sword fern (polystichum munitum)
- Indian plum (oemleria cerasiformis)
- Salal (gaultheria shallon)

In addition to the native vegetation on site, it also contains invasive species. Most notably:

- Himalayan blackberry (tubus armeniacus)
- English ivy (hedera helix)

Both parcels provide habitats for a range of wildlife species, although the quality of this habitat is considered low to moderate due to the site's size, the presence of invasive species, and its proximity to developed areas. Common wildlife observed on the sites include gray squirrels, raccoons, American crows, and various songbirds. While it serves as a small habitat for these species, it is relatively isolated and does not connect to a larger wetland system or riparian area.

Soil composition across the sites include hydric soils, indicative of wet conditions that support the presence of a wetland. The soil profile shows typical characteristics of prolonged saturation on the surface. Surface water runoff moves from the western higher elevation towards the eastern side, contributing to the wet conditions observed in the central portion of the property.

Per the Geotechnical study done by Earth Solutions NW, LLC, on May 2, 2023, surface soil consists of loose or previously disturbed soil and fill material, which are highly sensitive to moisture and are not suitable for use as structural fill. Subsurface soil below eight feet contains native mineral-dominant soil primarily consisting of silts and clays. Deeper soil levels beyond 15 and 20 feet transition to a less weathered, stiff condition with little variance in moisture content. Specifically, dense sands with minor silt and gravel were encountered at depths below 30.5 feet at certain boring locations.

Overall, the existing conditions of the site reflect a small ecosystem with sensitive surface and subsurface soil conditions, and wetland area. These factors have been taken into consideration when planning the single family residences, particularly in addressing soil stability.

Proposed Conditions

The proposed development involves the construction of two single-family residences, one on parcel #5315100458 and the other on parcel #5315100455.

- Parcel #5315100458: This 7,999 square foot lot will include 2,439 square feet of impervious area. The main footprint of the structure, including eaves, will be 1,671 square feet, with the structure situated on the south side yard setback.

- Parcel #5315100455: This 25,789 square foot, panhandle lot will include 3,409 square feet of impervious area. The main footprint of the structure, including eaves, will be 2,121 square feet, with the structure situated on the north side yard setback.

This proposal also includes a Lot Line Revision (SUB23-006) for both parcels, adjusting the north property lines by approximately one foot. Additionally, several utility easements will be recorded with parcel #5315100458, parcel #5315100455 and the City of Mercer Island.

Given the City of Mercer Island's regulations pertaining to Category IV wetlands, wetlands that are smaller than 4,000 square feet may be filled if the project meets specific mitigation sequencing provisions per MIMC 19.07.100 and MIMC 19.07.190.D.1.a.

Wetland B, being an isolated Category IV wetland not associated with any riparian areas, shorelines or part of a wetland mosaic, qualifies for alteration under the specified municipal code provisions. The proposed development will necessitate the filling of Wetland B, thereby removing it from the site.

In conclusion, the proposed development of two single-family residences on parcels #5315100458 and #5315100455 has been designed with consideration of the existing ecological conditions, including the sensitive soil composition and the presence of Wetland B.

Thank you,

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