



Project Narrative

Permit No:	To be assigned	Date Prepared:	Nov 24, 2021
Pre-App:	PRE21-011		
Owners:	Janet Buttenwieser and Matthew Wiley		
Project:	Mercer Island House: Cascade		
Site	6838 96 th Ave SE, Mercer Island, WA 98040		
Subject:	Project Narrative		

PROJECT OVERVIEW

- Address: 6838 96th Ave SE, Mercer Island, WA 98040
- Parcel Number: 3024059010
- Zoning: R-8.4
- Acres: 0.86
- Existing 2,980sf, 2-story main residence with detached garage and garden shed.
- Site access via steep private driveway with several environmentally critical areas including a steep slope, land slide hazards and a wetland delineated during design.

PROJECT TEAM:

- Owners: Janet Buttenwieser and Matt Wiley
- Architect: The Miller Hull Partnership
 - Partner in Charge: Brian Court
 - PM/PA: April Ng (Contact)
- Structural: Ted Ryan, PCS Structural Solutions
- Civil: Laurie Pfarr, LPD Engineering
- Landscape: Jonathan Morley, Berger Partnership
- Mechanical: Tom Marseille, Sazan Group
- Envelope Consultant: Jeff Speert, 4EA Building Science
- Geotechnical Engineer: Chip Barnett, Aspect Consulting
- Ecologist: Nell Lund, The Watershed Company
- Arborist: Andrea Starbird, Tree Solutions Inc.
- Contractor: Krekow Jennings

DRAFT PROJECT SCHEDULE:

Draft timeline:

- November 2021: Land Use Permit Submittal – Critical Area Review Type 2
- March 2022: Building Permit Submittal

The property Owners are working with Seaborn on dock repair work, to be submitted under a separate pre-application and permit.

GENERAL INFORMATION:

The project site is a waterfront site on the southeast side of Mercer Island. The sloped site runs primarily West to East, accessed via a private driveway from 96th Avenue SE and descends to the Lake Washington Shoreline. Three structures currently occupy the site: a primary two-story residence, a two-car garage and a small potting shed. There

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is also an existing dock and boat lift on Lake Washington. The house, garage and shed are in poor state of repair and will be demolished for the construction of the new residence.

There are several sensitive and environmentally critical areas on the site. A geotechnical report and critical area study have been completed for the project. The geotechnical engineer, ecologist and arborist have been consulted throughout design to review plans and design intent. The primary goal of the clients, that the design team shares, is to restore the existing site and improve it such that it doesn't continue to degrade.

BUILDING OVERVIEW:

The design team studied several options that met the client's programmatic goals as well as navigated the steepness of the existing slope. The studies located the building within the existing building footprint and previously developed areas that were outside of the steep slopes. The overall intent is to minimize site grading and use low-impact construction methods to the maximum extent practical.

The proposed development will be a three-story structure. The first two stories are located within the existing building footprint with the top level elevated on the hillside on piers to extend west toward the parking pad. An elevated covered walkway acts as the primary entry to the top level from the parking pad to allow the residents to age in place at this home without navigating stairs.

The proposed development incorporates a central exterior stair and ramp that continues through the building to access the water. The central circulation spine provides opportunities to correct decades of poor stormwater drainage throughout the site by celebrating the stormwater path through the site and providing multiple paths for stormwater to flow consistently to the outfall located on Lake Washington.

A new detached garage and carport will be built in nearly the same building footprint at the existing garage. Adjustment of the garage footprint was made in order for the driveway and parking pad to be reconstructed and allow adequate turning radii for vehicles including a mini-pump truck required for fire access by the City.

The existing garden shed will be replaced per required development setback requirements and will be a smaller area footprint.

SITE OVERVIEW:

The existing concrete driveway is worn smooth and is visibly cracked and failing due to what appears to be water seepage below the driveway and softening of the subgrade. It appears that the previous manmade measures to intercept sub-surface and surface flow from the hillside has failed and caused the impact to the downstream paving. It is the team's professional opinion that the replacement of the driveway is necessary from a life-safety perspective. It is anticipated that the replaced driveway could be built in such a way to provide a benefit to the wetland and mitigate future degradation of the site. The replacement of the driveway and retaining wall south of the driveway would benefit the wetland as it provides increased support for the slope where the wetland is mapped.

The existing driveway is roughly 10' wide and varies from a 20% – 25% slope as it descends toward the parking pad. The design team discussed options with the contractor on board for preliminary options to replace the driveway without impacting the wetland. Since the wetland directly touches the existing driveway, and the driveway location is bounded by the steep slope to the north, as well as steep grade changes to the south, the driveway will shift 1' south to avoid impacts to the wetland. In preliminary conversations with the Fire Marshal, the driveway will need to be reconstructed to a minimum 12' wide driveway to provide fire access to the home. The steepness of the driveway requires the concrete to have a grooved or raked finish. In a review of the driveway grade and the adjacency of the Wetland, it is not feasible to lessen the grade and it is anticipated to remain at approximately the existing grade. Where the existing driveway has been degraded, grades adjacent to the driveway may be slightly modified.

The area west of the garage was previously graded with timber retaining walls to create a vegetable garden. The proposed development removes the pressure treated timber retaining walls as they are deteriorating and potentially leach chemicals into the surrounding environment. The proposed development hopes to restore this area with landscape.

Stormwater from the site is proposed to be collected intermittently down the driveway and at the base of the slopes. Stormwater will be celebrated on the project site by routing flows through a runnel from the auto court to the bioretention facility at the east/lakeside of the home. A below grade stormwater system collecting overflow will also be routed around the south side of the house. Discharge from both systems will be combined on the east side and discharge directly into Lake Washington through an existing 6-inch pipe at the southeast corner of the site.

Sewer from the property will continue to be connected into the City of Mercer Island's Lake line extending along the east edge of the property. A new side sewer will be extended to the existing service just prior to the lake with the existing in lake service being reused. Just prior to that connection, a backflow valve will be added.

The existing 2-inch water meter and service will be reused for both domestic water and fire protection.

LANDSCAPE OVERVIEW:

The overall approach for the landscape is to preserve existing healthy trees and shrubs, improve the condition for existing trees where feasible and, remove invasive plant material. Existing site soil that are not compacted or affected by construction activities will be retained, particularly with the Recommended Limits of Disturbance (RLOD) as outlined in Tree Solution's Report dated September 15, 2021. Any work occurring within the RLOD will be monitored by the Arborist during construction activities. In areas where invasive plant material has been removed or areas affected by construction activities, existing site soils will be preserved or amended with imported topsoil to support revegetation.

The design team also studied multiple options for pedestrian site circulation and integration of stormwater management, ultimately opting for the scheme that was most direct and parallel with the walls of the new home, therefore minimizing extent of site disturbance.

Excavation and trenching for new utilities or irrigation lines will be located beyond the critical root zones of existing trees. The lower portion of the site east of the existing home is primarily lawn extending to the low bulkhead at the lake. The overall extent of lawn will be reduced and replaced with native vegetation suitable for a freshwater shoreline environment. New plantings throughout the site will be native or adapted to the Pacific Northwest.

CODE COMPLIANCE:

Reference G100 for applicable zoning code analysis. Site plan with setbacks documented is on G101. Code diagrams related to lot coverage, hardscape, and gross floor area are provided on G200 and G201.

SITE PHOTOS:



Looking west, up the driveway. Existing garage at the left.



Looking east, down the driveway. Existing garage at the right. Visible cracking of concrete driveway.



At driveway, looking Southeast. Existing vegetable garden west of garage



View from west of garage, looking north. Yielding timber retaining wall south of driveway



View from west of garage, looking south. Yielding timber retaining wall along south property line



Left: At driveway, looking northwest. Right: Closer view of disconnected pipes along north side of driveway.



At driveway, looking Southeast toward existing garage. Disconnected subsurface pipes along south side of driveway



Yielding timber retaining wall north of the parking pad. Existing stairs at right.



Existing path and lawn to house.



Yielding timber retaining walls at along east toe of slope.



Existing house, view from existing dock.