

Michael & Jenny Yeh  
9425 SE 54<sup>th</sup> Street  
Mercer Island, Washington 98040

October 17, 2023

City of Mercer Island  
Community Planning & Development  
9611 SE 36<sup>th</sup> Street  
Mercer Island, Washington 98040  
Attn: Grace Manahan, Assistant Planner

**Via Email [grace.manahan@mercerisland.gov](mailto:grace.manahan@mercerisland.gov) and U.S. Mail**

**RE: File No. CA023-014: Public Comment on Proposal of Construction of a Single-Family Home on a Vacant Lot Located in a Landslide Hazard Area, Erosion Hazard Area, an Exceptional Tree Area and Geologically Critical Area and Need for Appropriate Mitigation**

Dear Ms. Manahan:

We are writing to express our concerns and request the City to ensure that there is appropriate and adequate mitigation required regarding the proposed construction of a single-family home in a vacant lot located in a landslide hazard area and erosion hazard area (the "***Project***") southerly adjacent and immediately downslope from our home. Our home address is 9425 SE 54<sup>th</sup> Street, Mercer Island. The proposed construction site is also home to a significant number of "***Exceptional Trees***" (MICC 19.16 under Tree, Exceptional), located in a geologically critical area.

The Project raises significant concerns about the potential impact on the stability of the slope area and the safety of the homes and residents. The Project is sited extremely close to our home. So close in fact that concrete pad which has existed between our two lots long before either of us were owners of our respective lots, would need to be partially removed (according to current plans). The Project is also sited on a steep slope directly adjacent to our home, classified as both an erosion hazard area and a landslide hazard area (Sections 5.2 and 5.3 of The Geotechnical Engineering Investigation prepared by Merit Engineering, Inc. dated August 8, 2022 (the "***Geotech Report***"). In order to construct the foundation of the Project, the Geotech Report recommends "cutting into the slope to the maximum depth possible" and suggests the Project could have "a foundation wall that supports a soil cut bank [that would] need to be engineered as a retaining wall" (Geotech Report Page 18 (Cut Excavation)). Furthermore, a number of large, exceptional and old growth trees are identified for removal in order to accommodate construction, which will further destabilize the steep slope and create erosion issues.

Given that the Project is in an environmentally critical area due to the steep slope and potential for erosion and landslides, which is further exacerbated by the removal of large exceptional trees, many of them protected as exceptional trees pursuant to MICC 19.16, we are concerned the Project lacks adequate mitigation measures to address the following issues:

1. **Increased Landslide Risk:** Excavation and removal of soil can destabilize the slope, potentially increasing the risk of landslides. The removal of vegetation and alteration of drainage patterns can also contribute to slope instability. Removal of large established trees with larger anchoring roots can lead to structural instability. (Page 7, Arborist Report dated December 2022, prepared by Davey Resource Group, Inc. (the "**Arborist Report**"). Removing trees can also increase the risk of landslides. Trees help stabilize the land and removing them from steep slope can cause the land to become unstable and more prone to landslides. We request that exceptional trees be protected and that the City independently assess whether these trees should remain in this environmentally critical area.
2. **Water Runoff and Erosion:** Changes in the natural drainage patterns due to construction activities can redirect water flow towards neighboring homes. Increased water runoff can lead to erosion, which may further compromise the stability of the slope and increase the risk of landslides. We request the City to require adequate drainage, retention and storage of water during construction to minimize any damage caused by potential run-off.
3. **Structural Damage to Foundation and Home.** Construction activities involving excavation near a neighboring home can cause ground movement or subsidence, leading to damage to the foundation. This can result in structural issues such as cracks in walls or uneven settling. Building in a landslide hazard area or an erosion hazard area can cause structural damage to neighboring buildings due to ground movement or subsidence. We request the City to require to the fullest extent possible adequate mitigation measures during excavation and construction to address foundation issues and retaining walls.

While the Geotech Report and Arborist Report set out guidelines and best practices, much of its implementation is dependent on (a) additional information, plans, and project design documents that have not been provided and (b) compliance by a licensed general contractor and architect with adequate liability insurance that are yet to be identified. The contractor is responsible for maintaining safe excavation slopes and/or shoring (Geotech Report Section 8.3.1). The Geotech Report states that "detailed site grading and building plans were not available" (Geotech Report Section 6.1). The Geotech Report is also conditioned on the review of final plans for Project development to ensure that they are consistent with the recommendations in the Geotech Report (Geotech Report Section 8).

In order to adequately address the risks outlined above, we encourage the City to require the following:

1. **Preconstruction Surveys.** Conduct preconstruction surveys that include photographs, videos, and documentation to establish the existing condition of affected neighboring homes and/or other affected property. This can help provide a baseline for comparison in the event of future damage.
2. **Careful Planning and Sequencing:** Plan and sequence the construction activities carefully to minimize potential impacts on and maintain the structural integrity of neighboring homes and/or other affected property. This may involve adjusting the construction schedule, using vibration monitoring equipment, or implementing other mitigation measures.

3. Monitoring. Implement monitoring systems to track any changes or movements in the neighboring home's foundation during construction. This can help detect any potential issues early on and allow for timely intervention.
4. Additional City Inspections. The Geotech Report cites many instances where their re-evaluation based on actual observed soil conditions during construction is recommended. They also outline recommendations for construction and sloping activities.

It is important for construction projects in landslide and erosion hazard areas to follow proper engineering practices, including slope stabilization measures, drainage management, and monitoring systems. These measures help mitigate the risks associated with excavation and construction activities.

Thank you for your attention to this matter. We believe that construction in an environmentally critical area requires active and diligent oversight by the City to ensure that all construction activities are conducted in accordance with all City land use, building codes and regulations. We request that the City add us to any notices that are issued about the Project, and we appreciate the opportunity to provide comment.

Please contact us by email at [jeveh@msn.com](mailto:jeveh@msn.com) and [miyeh@msn.com](mailto:miyeh@msn.com) if you have any questions.