

Critical Area 2 Project Narrative: 4450 84th Ave SE

This application meets the requirements for a Critical Area Review 2 set forth by MICC 19.07.090, MICC 19.07.160, MICC 19.07.170, MICC 19.07.180, and MICC 19.07.190.

The parcel is a 9,603 square foot lot is located in a residential neighborhood on Mercer Island. The site has a slope of approximately 9% and is allowed 45% lot coverage. It has light vegetation and typical undergrowth.

The project consists of a two-story single-family residence with a basement level, totaling approximately 2,320 square feet of heated space and an attached 470 square foot garage.

According to the Mercer Island GIS and the geotechnical study, the site lies within designated Critical Areas for Erosion Hazard, Potential Landslide Hazard, and Seismic Hazard.

MICC19.07.090 – Critical Area Reviews

A Critical Area Study was conducted by a qualified geotechnical engineer on the site:

- A Geotechnical Engineering Study and Critical Area Report was prepared by Cobalt Geosciences.
- This report include test pit observations, slope stability modeling, erosion and seismic hazard evaluations, and subsurface characterization.

MICC 19.07.160 - Geologically Hazardous Areas

The project site is located within areas designated as:

- Erosion Hazard Area
- Landslide Hazard Area
- Seismic Hazard Area

Potential Landslide Hazard:

- The proposed residence will be situated in the eastern portion of the site which is as far from the mapped hazards as feasible and is not within hazard areas.

Erosion Hazard:

- The Natural Resources Conservation Services (NRCS) maps for King County indicate that the site is underlain by Alderwood gravelly sandy loam (8 to 15 percent slopes). Based on our experience, the site soils would have a slight to moderate erosion potential in a disturbed state depending on the slope magnitude.

- It is our opinion that soil erosion potential at this project site can be reduced through landscaping and surface water runoff control. Typically, erosion of exposed soils will be most noticeable during periods of rainfall and may be controlled by the use of normal temporary erosion control measures, such as silt fences, hay bales, mulching, control ditches and diversion trenches. The typical wet weather season, with regard to site grading, is from October 31st to April 1st. Erosion control measures should be in place before the onset of wet weather.

Seismic Hazard:

- The overall subsurface profile corresponds to a Site Class *D* as defined by Table 1613.5.2 of the International Building Code (IBC).
- Additional seismic considerations include liquefaction potential and amplification of ground motions by soft/loose soil deposits. The liquefaction potential is highest for loose sand with a high groundwater table. The site has a low likelihood of liquefaction.

Conclusion:

- -The geotechnical engineer has provided design recommendations which will be implemented, including but not limited to foundation design recommendations. Other considerations discussed include temporary excavation, control of surface water, and wet weather construction. Please see full geotechnical report submitted for all information.

MICC 19.07.170 – Fish and Wildlife Habitat Conservation Areas:

This is inapplicable to project as no fish and wildlife habitat conservation areas were located on or adjacent to the project site.

MICC 19.07.180 – Watercourses:

This is inapplicable to project as no watercourse exists on the project site or near enough to be impacted by required buffers.

MICC 19.07.190 - Wetlands:

This is inapplicable. No wetlands are located on the project site.

Conclusion:

The proposed project will comply with all local, state and federal regulations regarding the Critical Areas discussed above. The proposed project will strictly adhere to all Best Management Practices and Mitigation requirements set forth by the geotechnical engineer.

We believe this project complies with Critical Area regulations set forth in MICC 19.07.090, 19.07.160, 19.07.170, 19.07.180, and 19.07.190.