



S T U R M A N
A R C H I T E C T S

Date: January 28, 2026
To: City of Mercer Island
Community Planning & Development

From: Brad Sturman – Sturman Architects

Re: Parikh Residence
2816 68th Ave SE
Mercer Island, WA 98040
Parcel ID: 509330-1000

Subj.: Critical Area 2 Review – Criteria Compliance Narrative

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 15,000.0 gross square foot lot in a residential area of Mercer Island with an existing single family residence with attached garage which will be added on to and remodeled.

The site has a slope of approximately 40% and therefore is allowed 30% lot coverage. This site slopes from a high point just south of the NE corner down to a low point at the SW corner, sloping downhill down to 68th Ave SE.

It is vegetated with large areas of natural plants native and ornamental left largely natural and contains ten regulated trees, two of which are 24" or greater. Areas near the house have some typical residential landscape plantings. There are 4 large regulated trees in the right of way.

The existing one story 3,012 sf residence with a west-facing daylight basement and 585 sf attached garage with deck above will be remodeled and added on to. Two small expansions of the lower floor, an addition to the main floor over the existing and new garage, and a new second story above the existing main floor will result in a total of approximately 4,857 square feet of heated space plus an additional 642.9 square feet of attached garage and 284 square feet of main level covered outdoor deck.

According to the Mercer Island GIS the site lies substantially or entirely within designated Critical Areas for Erosion Hazard, Potential Landslide Hazard, Seismic Hazard, and Steep Slope Hazard. The geotechnical study states that the west portion of the property is considered a Steep Slope Hazard per Mercer Island. There is also a Steep Slope hazard present on the adjacent property to the east with a small portion of it extending on the NE corner of the subject property.

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 Study were prepared by Geotech Consultants, Inc, led by Adam S Moyer, Geotechnical Engineer.

- These reports include test pit observation and sampling, soil sampling tests, erosion and seismic hazard evaluations, subsurface characterization, and engineering analyses and recommendations.

- These studies have not yet been submitted under a formal permit application but will support the forthcoming building permit submittals.

MICC 19.07.160 - Geologically Hazardous Areas

The project site is located within areas designated as:

- Erosion Hazard Area (15–39% slopes)
- Landslide Hazard Area (15%+ slopes)
- Seismic Hazard Area
- Steep Slope Hazard

Key findings from ESNW's Critical Area Report (Jan. 31, 2025):

Potential Landslide Hazard:

- "We saw no indications of recent instability on, or near, the site. The Landslide Hazard Assessment of Mercer Island indicates that documented landslides have occurred several lots to the south of the site."

- "the core of the subject site consists of dense to very dense/very hard, sand and silt soils that have a low potential for deep-seated landslides. The mapping of the Potential Landslide Hazard Area is due to the ground surface being moderately sloped and inference by geologists that the site lies near the scarp on an ancient landslide based on LiDAR imaging. An ancient landslide as mapped would most likely have occurred following the recession of the last glaciers, over 13,000 years ago. No recent landslide movement has been documented in this area"

- "the entire subject site lies within a mapped Potential Landslide Hazard Area and the prescriptive buffer would encompass the entire residence footprint and the planned development area. The recommendations presented in this report are intended to protect the planned additions, portions of which will be located within prescriptive buffer from the adjacent Steep Slope Hazard Areas to the east and west of the residence."

- "We recognize that the planned development will occur within the prescriptive critical area buffers. The recommendations presented in this geotechnical report are intended to allow the project to be constructed in the proposed configuration without adverse impacts to critical areas on the site or the neighboring properties. The geotechnical recommendations associated



with foundations and erosion control will mitigate any potential hazards to critical areas on the site.”

- “The proposed new residence additions will be supported on foundations bearing directly on the dense to very dense native soils, or on small diameter pipe piles embedded into these dense to very dense soils, which are not liquefiable due to their dense nature and the absence of near-surface groundwater. This mitigates the Seismic Hazard. Furthermore, the existing rockery located downslope of the proposed residence addition will be replaced by an engineered soldier pile retaining wall to provide lateral stability for the tall filled rockery located to the west of the new second-story addition.”

Erosion Hazard:

- “This potential hazard can be mitigated by implementing proper temporary erosion control measures during the site development.”

- “The geotechnical recommendations associated with foundations and erosion control will mitigate any potential hazards to critical areas on the site.”

Seismic Hazard:

- Site soils “class within 100 feet of the ground surface is best represented by Site Class Type D (Stiff Soil). As noted in the ASCE 7 Hazard Tool website, the mapped spectral acceleration value for a 0.2 second (S_s) and 1.0 second period (S₁) equals 1.40g and 0.49g, respectively.”

- “soils beneath the site are not susceptible to seismic liquefaction under the ground motions of the MCE because of their dense nature and the absence of near-surface groundwater”

- “The proposed new residence additions will be supported on foundations bearing directly on the dense to very dense native soils, or on small diameter pipe piles embedded into these dense to very dense soils, which are not liquefiable due to their dense nature and the absence of near-surface groundwater. This mitigates the Seismic Hazard. Furthermore, the existing rockery located downslope of the proposed residence addition will be replaced by an engineered soldier pile retaining wall to provide lateral stability for the tall filled rockery located to the west of the new second-story addition.”

Steep Slope Hazard:

- “the proposed new residence additions will be supported on foundations bearing directly on the dense underlying sand and silt, or on small-diameter pipe piles embedded into these competent dense soils, which are not susceptible to deep-seated movement. For the taller portion of this rockery, which is located downslope of the planned second-story addition, we recommend rebuilding the rockery as an engineered soldier pile retaining wall. Considering this, it is our opinion that no additional buffers or setbacks are required from the steep slope, provided the recommendations presented in this report are followed. The



recommendations presented in the report are intended to prevent adverse impacts to the stability of the slopes on the site and the neighboring properties, and to protect the planned development from damage in the event of potential shallow soil movement on the steep slope.”

Conclusion:

-The geotechnical engineer has concluded that “Provided the recommendations in this report are followed, it is our professional opinion that the recommendations presented in this report for the planned alterations will render the development as safe as if it were not located in a geologically hazardous area, and will not adversely impact critical areas on adjacent properties.”

-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 the 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 the 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 to the project as 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.



S T U R M A N
A R C H I T E C T S

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.

Sincerely,

Brad Sturman. Sturman Architects