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Subject: 24 Merc Mercerdale 4103 – CAR 1 Critical Compliance Narrative  
Permit Number: 2503-203  
Project Address : 4103 78th Ave SE, Mercer Island, 98040.

On this 17573 SF lot on zone R-9.6, there is an existing single-family residence with main level and basement constructed back in year 1984 on the lot. Based on the latest survey plan, there is a portion of steep slope >40% identified, located at the south-west of the lot.

New addition is proposed to be constructed on top of the existing structure without adding any new disturbed ground area. There will be no trees removed.

**MICC 19.07.110 - Critical area study.**

A. A critical area study shall be required when a development proposal will result in an alteration to one or more critical areas or critical area buffers or when required to determine the potential impact to a critical area.

**Answer:**

A geotechnical engineering study and critical area study report dated June 5, 2025 is provided by qualified geotechnical engineers, Matthew K. McGinnis from Geotech Consultants, Inc.

B. The critical area study shall be in the form of a written report supported by graphic information prepared by a qualified professional using guidance based on the best available science consistent with the standards in WAC Chapter 365-195 and shall contain the following items, as applicable to adequately evaluate the proposal, proposed alterations, and mitigation:

1. Disclosure of the presence of critical areas, including a delineation and type or category of critical area, on the development proposal site and any mapped or identifiable critical areas on or off site within the distance equal to the largest potential required buffer applicable to the development proposal area on the applicant's property;
2. A topographic and boundary survey;
3. A statement specifying the accuracy of the report and all assumptions made and relied upon;
4. A description of the methodologies used to conduct the critical area study, including references;
5. A scale map of the development proposal site;
6. Photographic records of the site before the proposed alteration occurs;
7. An assessment of the probable effects to critical areas and associated buffers, including impacts caused by the development proposal and associated alterations to the subject property and impacts to other properties and any critical areas or buffers located on them resulting from the development of the site and the proposed development;
8. A description of mitigation sequencing implementation described in section [19.07.100](#) including steps taken to avoid and minimize critical areas impacts to the greatest extent feasible;
9. Detailed studies, as required by this chapter, for individual critical area types in order to ensure critical

area protection;

10. Assessment of potential impacts that may occur on adjacent sites, such as sedimentation or erosion, where applicable; and

11. A post-design memorandum prepared by a qualified professional confirming that the proposed improvements comply with the design recommendations.

**Answer:**

1,3,4,7,8,9,10,11 – All this information can be found in the Geotechnical Engineering Study and Critical Area Study dated June 5, 2025 is provided by qualified geotechnical engineers, Matthew K. McGinnis from Geotech Consultants, Inc.

2 - A boundary and topographic survey dated March 27, 2024 is prepared by registered Professional Land Surveyor, Lyubomir S. Davodkov. >40% steep slope is identified and shown in the survey plan.

5 – Scaled map of the proposed site can be found under plan set Sheet G1.0 .

**MICC 19.07.130 - Modifications.**

Activities of the following types may be authorized with approval of an application for a critical area review 1. The activities in this section are exempt from the development standards in subsequent sections within this chapter; provided, that additional measures to protect life and property or to protect environmental quality may be required.

A. 2. Additions shall be allowed if all of the following criteria are met:

a. The structure is enlarged not more than a cumulative total of 200 square feet larger than its footprint as of January 1, 2005;

**Answer:** There is no footprint added from the original planning since 1984. The current proposal will not be adding any footprint as well, as shown in the plan set in sheet A7.3. Hence structure is enlarged not more than 200 SF than its original footprint.

b. If the existing, legally established structure is located over or within a wetland or watercourse, no further expansion within the wetland or watercourse is allowed;

**Answer:** There is no wetland or watercourse on this lot.

c. If the existing legally established structure is located within a wetland or watercourse buffer, the addition may be no closer to the wetland or watercourse than a distance equal to 75 percent of the applicable standard buffer and must also be no closer to the watercourse or wetland than the existing structure;

**Answer:** There is no wetland or watercourse on this lot.

d. A critical area study approved by the city demonstrates that impacts have been avoided or minimized and mitigated consistent with section [19.07.100](#), mitigation sequencing;

**Answer:** A critical area study by geotechnical engineer is provided. Further mitigation sequencing will be explained under MICC 19.07.100 below.

e. If the modification or addition is proposed within a geologically hazardous area or associated buffer, a qualified professional provides a statement of risk consistent with section [19.07.160\(B\)\(3\)](#).

**Answer:** Geotechnical engineer has provided a statement of risk consistent with section 19.07.160(B)(3) below.

### **MICC 19.07.100 - Mitigation sequencing.**

Except as otherwise provided in this chapter, an applicant for a development proposal or activity shall implement the following sequential measures, listed below in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers. Applicants shall document how each measure has been addressed before considering and incorporating the next measure in the sequence:

- A. Avoiding the impact altogether by not taking a certain action or parts of an action. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, or conditional use in this title. In determining the extent to which the proposal should be redesigned to avoid the impact, the code official may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified changes to the proposal. Development proposals should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant critical areas and based on the recommendations of a critical area study. If impacts cannot be avoided through redesign, use of a setback deviation pursuant to section [19.06.110\(C\)](#), or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsections B through E of this section;

**Answer:** Decision to propose the addition on top of the existing footprint, instead of increasing any footprint, with the best effort to avoid any critical area impacts.

- B. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, using a setback deviation pursuant to section [19.06.110\(C\)](#), using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- C. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- E. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or
- F. Monitoring the impact and taking appropriate corrective measures to maintain the integrity of compensating measures.

**Answer:** All mitigations in details are proposed and explained in the Geotechnical Engineering Study and Critical Area Study dated June 5, 2025 is provided by qualified geotechnical engineers, Matthew K. McGinnis from Geotech Consultants, Inc.

### **MICC 19.07.160 - Geologically hazardous areas**

B. *General review requirements.* Alteration within geologically hazardous areas or associated buffers is required to meet the standards in this section, unless the scope of work is exempt pursuant to section [19.07.120](#), exemptions, or a critical area review 1 approval has been obtained pursuant to section [19.07.090\(A\)](#).

3. Alteration of landslide hazard areas, seismic hazard areas and associated buffers may occur if the conditions listed in subsection (B)(2) of this section are satisfied and the geotechnical professional provides a statement of risk matching one of the following:

a. An evaluation of site-specific subsurface conditions demonstrates that the proposed development is not located in a landslide hazard area or seismic hazard area;

b. The landslide hazard area or seismic hazard area will be modified or the development has been

designed so that the risk to the site and adjacent property is eliminated or mitigated such that the site is determined to be safe;

c. Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous area and do not adversely impact adjacent properties; or

d. The development is so minor as not to pose a threat to the public health, safety and welfare.

**Answer:** Answer to the geologically hazardous areas can be find under the "Critical Area Study (MICC 10.07) section in the Geotechnical Engineering Study and Critical Area Study dated June 5, 2025 is provided by qualified geotechnical engineers, Matthew K. McGinnis from Geotech Consultants, Inc.

We have outlined below our responses to the code compliances for the Critical Area Review 1 process. Please don't hesitate to let us know if you have further comments.

Regards,

Architect: 5ft2 Studio Architects

By:  \_\_\_\_\_

Peik Li Pang, AIA, Architect

Date: August 25, 2025