

TO: Mr. Jintao (Addison) Cui

REFERENCE: Arborist Response to City Review Comments RE: SUB22-009 (Cui Preliminary Short Subdivision)

SITE ADDRESS: 4833 90th Ave SE, Mercer Island, WA

DATE: 12/6/2023

PREPARED BY: Katie Hogan, ISA Certified Arborist PN-8078A
ISA Tree Risk Assessment Qualified

This report addresses the City of Mercer Island's comments dated October 25, 2023.

1. Please provide an updated Tree Inventory Worksheet that matches the arborist report and plan set. All regulated trees over 10 inches in diameter, including non-viable trees, need to be counted in the total number of trees. 30% of the total number of trees greater than 10 inches in diameter must be retained.

Arborist Response: See provided revised worksheet. The project now proposes retention of 16 of the 54 large trees on the site for a total retention of 30% (rounded from 29.6).

2. Please show an X through all trees proposed to be removed on the site plan. It is hard to see which trees are proposed to be removed on the current plan set. Marking each removed tree with an X will avoid mistakes during the site clearing phase.

Arborist Response: Completed. See the revised Tree Retention Plan dated 12/4/2023, Sheet TR-01.

3. Please provide the following information for the exceptional trees numbered 26, 27, 33, and 55. Justification for the removal of these exceptional trees under MICC 19.10.060(A)(3) will be required. It is not sufficient to simply state an exceptional tree would prevent the creation of a lot.

- a. You will be required to save 30% of all large regulated trees, and any exceptional trees over 24 inches in diameter. Please provide a plan with these trees indicated along with their driplines as determined by the project arborist.**

Arborist response: There are 54 large, regulated trees on the project site. This project proposes the retention of 16 large, regulated trees for a total retention of 30-percent. There are 9 Exceptional trees with diameters of 24" or greater; 3 of which are in advanced stages of decline and considered non-viable (Tree #s 27, 35, 56). See original Arborist Report dated 8/9/2023 for detailed information on non-viable trees. Of the 6 viable Exceptional trees with diameters 24" or greater, two are proposed for retention

(#s 4 and 63). The four additional trees proposed for removal, #s 26, 28, 33 and 55, are addressed below.

- b. Please show different options for lot line placements that retain the most exceptional trees or the exceptional trees most suitable for retention.**

Arborist Response: See revised site plans showing smaller proposed homes to maximize tree retention.

- c. Determine the allowed setbacks and maximum gross floor area for each lot and configure the building pad to best avoid any exceptional trees and retain 30% of large trees. You may need to modify the rectangular building pads to accommodate exceptional tree driplines.**

Arborist Response: See revised site plans showing smaller proposed homes and non-rectangular homes to maximize tree retention.

- d. Please include an updated narrative and plan showing that you have followed the above steps. You may only remove an exceptional tree after this exercise takes place and you find that retaining the tree would limit the constructible gross floor area of a lot to less than 85% of the maximum gross floor area allowed in the zone.**

Arborist Response: The project requests the removal of 4 healthy Exceptional trees 24" DBH or greater. Narrative is provided below detailing the site plan alterations that were considered to support retention.

Tree #26 - Alternative layouts for the required access, utility connections, and stormwater detention were explored to see if retention of this tree was possible. This included moving these site improvements along the north and south property lines. However, because the city is requiring that the project connect to the existing storm drain along Island Crest Way, there was no feasible alternative that resulted in fewer tree removals.

Tree #28 - See comments for Tree #26 above. This tree conflicts with the proposed access and stormwater utility connections.

Tree #33 - Options were explored for adjusting the building pad size and location to support the retention of tree #33; however, there was no feasible alternative that would allow for adequate protection of this tree. Due to the required access road, on-site drainage retention/detention vault, stormwater system and utilities, retention of this tree is not possible.

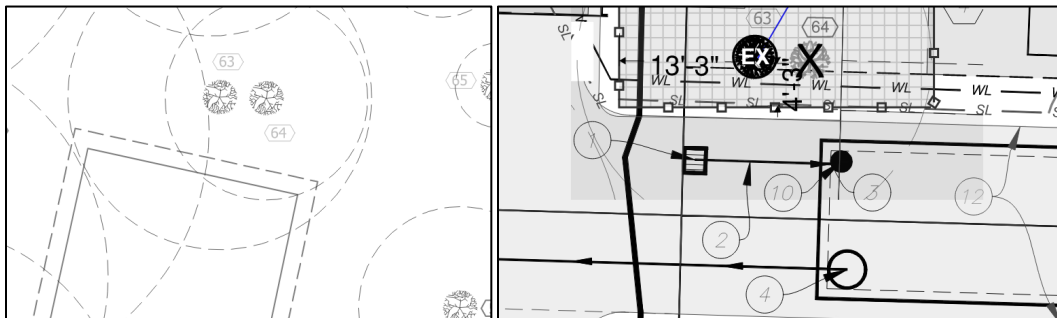
Tree #55 - The building pad has been modified on Lot 4 by flipping the proposed house; however, even with this adjustment the excavation needed to construct the foundation will be approximately 3-feet from the tree trunk. Due to the large diameter and required area to adequately preserve this tree, there were no feasible alternatives to support retention while still maintaining the required maximum gross floor area requirement.

4. The following trees are shown as retained, but not protected at their driplines: 3, 4, 5, 36, and 69. All retained trees must be protected in such a way that they will not be damaged and will remain viable long term. The trees may be considered removed if too many roots are damaged. Air excavation root analysis or other noninvasive techniques approved by the project shall be performed before any building pad location is approved. After the limits of allowable disturbance are determined by the project arborist, these limits must be included in the tree protection plan. Any excavation within the driplines of exceptional trees or other trees required for retention can only be performed if they will not be damaged as per MICC 19.10.080. The project arborist must discuss this code and the long-term viability/stability of the trees after the proposed excavation within the dripline area.

Arborist Response: Tree #s 3, 4, 5, 36, 54 and 69 are now protected at their driplines. See the revised Tree Retention Plan dated 12/4/2023, Sheet TR-01.

Alterations to proposed site plans to support retention include:

Lot 1 – House footprint was shifted west to edge of buildable area and house footprint was reduced to retain Exceptional tree #s 63 and 68. Tree #63 is a 25.2-inch DBH Pacific Madrone tree located in the southeast corner of proposed Lot 1. The tree is proposed to be protected at its dripline to the north and east; however, encroachment is proposed to the south to construct the access road, detention tank, and associated catch basin. This work will occur 6 to 10 feet from the tree trunk. The existing single-family home is located about 8-feet south from the trunk of this tree; therefore, it is not anticipated that impacts from this work will substantially impact tree #63.



Figures 1 and 2. Tree #63 proximity to existing house and foundation (left). Location of proposed utilities and driveway (right).

Lot 2 – House footprint was reduced to retain Exceptional tree #54 and large tree #s 51 and 52.

Lot 3 – House footprint was reduced and shifted further to the south outside of the driplines of Exceptional tree #s 4 and 5 and large tree #3.

Lot 4 – Grading was adjusted to preserve the dripline area west of large tree #36. The city is requiring a 12" storm pipe be constructed to the east of tree #36 to pipe the existing ditch. Tree protection fencing is shown to extend 7-feet to the east at the limits of disturbance for this utility work. This species of tree has a high tolerance to construction impacts and, due to its young age, should be able to tolerate this level of impact. To ensure adequate protection, any utility work within the dripline shall be monitored by the project arborist.



Photo 2. Tree #36 and approximate location of proposed storm water pipe.