



February 21, 2019

Evan Maxim
Director of Community Planning & Development
City of Mercer Island
9611 SE 36th Street
Mercer Island, WA 98040-3732

**Re: MI Treehouse CAO15-001 and SEP15-001 Reasonable Use Exception ESA memorandum
(12-06-2018)
CORE Project No. 18039**

Dear Evan:

The purpose of this letter is to provide applicant responses to a memorandum from ESA dated December 6, 2018. The memorandum is a summary of and response to public comment on the above referenced MI Treehouse project. This letter is intended to give you a formal response from the project team to acknowledge the points of action suggested in the ESA memorandum and indicate potential solutions from the project team perspective.

Please note that the majority of public comment content included in the December 6, 2018 memorandum is from an email sent to the City by Mr. Anderson. The project team acknowledges that all points and/or concerns raised by Mr. Anderson, and ESA, are valid and worthy of consideration. However, in our experience, most of the solutions involved would typically come during a final engineering or building permit phase and are regulated therefore by existing City codes and standards. As such, review of and solutions for such design elements would occur during the existing final engineering and building permit processes established in the City, as opposed to the current discussion regarding reasonable use.

The project team expects to (1) demonstrate full compliance with applicable City codes and standards during the final design process and (2) provide appropriate mitigation measures within the final design for any adverse impacts to an extent such that there are no significant adverse impacts to the environment from the project.

Retaining Walls (Mr. Anderson email, paragraph 2 and ESA memorandum, paragraph 3)

With regard to the retaining walls discussed in paragraph 2 of Mr. Anderson's email and summarized in paragraph 3 of the ESA memorandum, I would agree that (1) shifting the grading design resulting in relocated/smaller walls and/or (2) adding/considering wall drainage (typical of all walls and required during final City review) with specific goals to minimize adverse impact to the surrounding sensitive

areas would be expected and wise. One of the primary impacts to prioritize will be wetland recharge. We expect to conduct a detailed analysis with project-specific design applications to maintain wetland function in the proposed/permanent condition. As noted by ESA in the 12/6/18 memorandum, design plans and details for the grading, retaining walls and corresponding drainage system are anticipated to demonstrate Code compliance with the goal to maintain wetland function at the predeveloped condition.

Detention System (Mr. Anderson email, paragraph 3 and ESA memorandum, paragraph 4)

With regard to the detention tank system discussed in paragraph 3 of Mr. Anderson's email and summarized/supplemented in paragraph 4 of ESA's memorandum, the project team again agrees that it would be wise to pay close attention to the siting, orientation and sizing for this system so that bypass area is minimized and impact to sensitive areas is optimized including specific consideration for proximity of excavation and permanent placement to existing wetlands/streams. We know there will be impact but a priority goal for the project is to optimize/minimize impact and provide appropriate mitigation where impacts are unavoidable. We would typically expect to work with a hydrogeologist to analyze pre-developed wetland hydrology and design to maintain this in both temporary (during construction) and permanent (fully developed/completed) phases. All design detail demonstrating a Code-compliant design is anticipated during the final design phase of the project.

Bypass Area 1 (Mr. Anderson email, paragraphs 4 and 5)

As noted above the siting, orientation and sizing of the detention system will be optimized to collect as much stormwater runoff as possible in order to minimize bypass area. Mr. Anderson is correct that it is already a challenge to meet pre-developed runoff rates and durations on small sites so having any bypass can significantly add to that challenge. We are familiar with this condition and expect to optimize the design during final engineering. Mr. Anderson is also correct that eliminating bypass area on this project is likely infeasible which is why we will seek to find an optimum condition in the final design.

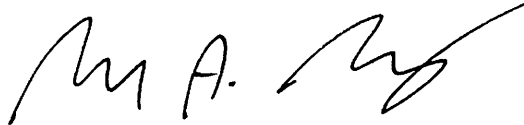
Flow Control Calculations (Mr. Anderson email, paragraph 6)

In the final paragraph in Mr. Anderson's email he refers to a meeting Core was not present at but appears to have included discussion regarding bypass area in flow control/detention system sizing calculations. For many small projects like this one the detention sizing calculations are indeed different and may or may not include bypass area considerations. However, in our experience on other parcels that are constrained with critical areas and associated buffers, additional analyses are included in the final engineering design to analyze and address concerns related to critical areas and potential adverse impacts from development. However, it has also been our experience that the Reasonable Use process is not a final design level evaluation but that it also does not provide a final design or construction approval. The most appropriate place for such detail is the final design / construction permit process. This is the process in which the owner/applicant demonstrates compliance with all applicable codes, requirements and standards including any site-specific conditions applied during or as a result of the reasonable use process.

In conclusion, based on our understanding of all issues raised through public comment and in the ESA memorandum in addition to our design experience, we believe a Code-compliant design that addresses all issues noted to date is feasible. Please feel free to contact me with any additional questions.

Sincerely,

CORE DESIGN, INC.

A handwritten signature in black ink, appearing to read "M.A. Moody". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Michael A. Moody, P.E., LEED AP
Associate, Engineering Manager