

May 3<sup>rd</sup>, 2018

City of Mercer Island Development Services Group  
9611 SE 36<sup>th</sup> St.  
Mercer Island, WA 98040

Re: Response to CA017-007 (Critical Area Determination for 4634 E Mercer Way)  
C/O: Robin Proebsting

Dear Miss Proebsting,

In response to your October 26<sup>th</sup>, 2017 letter to Andrew Wisdom of Studio 19 Architects, we are replying to your comments regarding the critical area determination. The following is a list of your comments in *italics* and our responses indicated in **bold**.

1. *Public comment, including a report by a geotechnical engineer (attached – please see the October 10, 2017 letter from Edward J. Heavey, P.E.), has raised concerns about potential impacts to the private street that accesses the subject property due to construction traffic necessitated by construction of the proposed single family residence. Please investigate the topography and soils in vicinity of the private street and provide information from a qualified professional (i.e. geotechnical engineer or engineering geologist) on the expected impacts of the anticipated construction traffic on the street, which is on a steep slope that constitutes a geologic hazard area under the MICC. Please also verify whether these impacts would constitute alteration of a steep slope as defined in Chapter 19.16 MICC. If the expected impacts do constitute alteration of a steep slope, please include an analysis of the proposed impacts in the scope of work under review for CA017-007.*

**Additional review of the potential project impacts has been completed by Michael Xue, P.E., of Pan Geo Inc. The letter prepared by Pan Geo Inc. is attached for your review.**

2. *Sheet A1.01 shows watercourse delineation flags. Sheet 3 of 6 of the civil plan set submitted for permit 1507-166REV proposes drainage infrastructure in what appears to be the same area as the watercourse (in the southeast corner of the site). In your resubmittal, please provide a sheet showing the location of the proposed drainage infrastructure in relation to the delineated watercourse.*

- a. *Based upon a review of the current plan set, it appears that work is proposed within the watercourse channel (on lands covered by water) and consequently a SEPA review is required. Please apply for a SEPA review, or modify the proposed design to avoid work on lands covered by water.*

**Work in the watercourse channel is no longer proposed. The tightline storm system will be laid at grade, therefore eliminating any impacts to the watercourse or its associated buffer.**

b. Note that if development is proposed within the watercourse or associated buffer, the scope of review under CAO 17-007 will need to be expanded to include review the proposed scope of work for compliance with MICC 19.07.030(7). Please either modify the proposed design to avoid work within the watercourse buffer, or provide a critical areas study that addresses the proposed work within the watercourse buffer (e.g. identifies the scope of the impact, addresses minimizing impacts, and proposed mitigation).

**Please see response comment 2a.**

c. Lastly, note that a shoreline permit may be needed for the drainage facilities proposed along Lake Washington, unless the scope of work falls within one of the exemptions in WAC 173-27-040.

**No work is proposed within the shoreline of Lake Washington. The outfall from the subject property will be made 10' from the shoreline bulkhead.**

3. Public comment submitted for this project is attached for your review.

**Noted.**

I am hopeful that the above comments and enclosures are sufficient for you to complete your final review and project approval will be forthcoming in the near future. I thank you in advance for the time that you have committed to this project.

Sincerely,

Steven M. Long  
Studio19 Architects  
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Seattle, WA 98104  
[slong@studio19architects.com](mailto:slong@studio19architects.com)  
(via email)

May 2, 2018  
File No. 14-128.200

Mr. Paul Maksimchuk  
**MAKSLAND LLC**  
223 SW 327<sup>th</sup> Place  
Federal Way, WA 98023

**Subject: Response to Review Comments  
Proposed Single-Family Residence  
4634 E Mercer Way, Mercer Island, WA**

Dear Mr. Maksinchuk,

This letter responds to City of Mercer Island's review comments dated October 26, 2017 regarding Critical Area Determination for the above project. It should be noted that our response to the review comments is limited to the geotechnical aspect of the comments. Our response to the comments is summarized below.

### **1. Impact of the Proposed Construction on the Private Street**

We understand that the only access to the subject site is a private street from East Mercer Way (see Figure 1). Based on the review of available King County iMap and City GIS maps, the private street generally descends from the East Mercer Way to the subject site with gradients up to about 10 to 15 percent with a total elevation difference of about 75 feet. The private street is an asphalt paved road (see Plates 1 and 2). PanGEO personnel visited the site several times in the last winter to observe the conditions along the private street and the slopes along the street. Some cracks were observed on the asphalt pavement surface. These cracks are approximately parallel to the roadway. In our opinion, the pavement cracks were likely caused by a combination of poor pavement subgrade condition, pavement fatigue, and slow creep of roadway subgrade. It is also our opinion that the pavement cracks are likely developed over a long period of time.



**Plate 1.** View of the upper (west) section of private street, approximately looking west.



**Plate 2.** View of the upper (mid-west) section of private street, approximately looking west.

The proposed construction will require truck traffic to export the excavated soils and import the structural fill if needed. Concrete trucks will also need to use the private street. In order to reduce the potential impacts on the street, we recommend the trucks accessing the subject site on the private street have a maximum load of 5 yards each truck. In our opinion, based on the anticipated truck traffic, the reduced truck load may potentially cause minor additional roadway subgrade creep and pavement cracks or enlarging the existing cracks. However, it is our opinion that the anticipated truck traffic with reduced truck load will not likely have adverse impacts on the stability of the roadway and slopes along the road. Additionally, we recommend that monitoring points be established along the roadway to observe the roadway performance during trucking period. Daily monitoring is recommended during the mass trucking period.

In summary, it is our professional opinion that the anticipated truck traffic with reduced truck load will not likely adversely impact the stability of the private street and surrounding steep slopes. Furthermore, it is also our opinion that the potential minor additional roadway subgrade creep and pavement cracks will not constitute alteration of the steep slopes as defined in Chapter 19.16 MICC.

## 2. Wood Wall on 4640 East Mercer Way

A wood wall about 4½ feet is located about 20 feet to the east property line on 4640 East Mercer Way property. The proposed construction area is located approximately 30 feet outside of the 1H:1V line projected from the bottom of the wood wall. Based on the soil conditions at the site, the distance of the wood wall and the proposed construction area, it is our professional opinion that the proposed construction will not have adverse impacts on the existing wood wall and the adjacent property to the east. However, we recommend that monitoring points be established on the existing wood wall and monitoring be conducted during earthwork.

## CLOSURE

We trust that the information presented herein meets your need at this time. Please call if you have any questions.

Sincerely,



*5/2/2018*

Michael H. Xue, P.E.  
Senior Geotechnical Engineer