Brandt Design Group

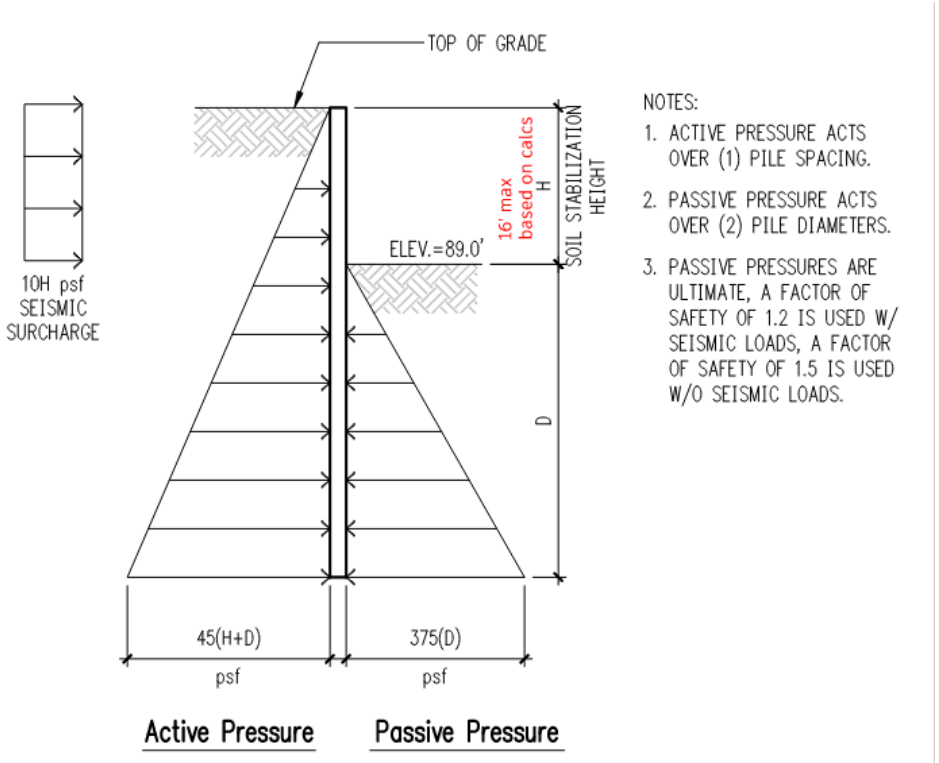
66 Bell Street, Unit #1 Seattle, WA 98121 206.239.0850

City of Mercer Island
Building Department
c/o Don Cole,
RE permit 2011-147 – Clarkson Residence 8163 W Mercer Way

Don,

This letter is in response to your email sent 5/1/24. We have been in contact with both Brett Mozden and Marc McGinnis about the as built condition and how it differs from the permitted drawings.

The soil stabilization wall was installed based on the permitted plans, however there was grading done at the top of the slope to provide access to equipment as the piles were driven. The area where the wall was installed was cut down to from an approximate elevation of 101.0' to an approximate elevation of 96.0'. As such, lagging was added so that the excavated portion of the site could be rebuilt on the east side of the stabilization wall. The western side of the wall was not rebuilt as the wall was designed to allow for a 16' vertical cantilever as shown in detail 10/SH3.1 in the approved permit set.



We have included an updated excavation plan (sheet A102) showing the lower grade on the western side. Additionally, we have included sections through 2 points on the wall to show that the passive pressure is met despite the road being below the noted passive pressure elevation of 89.0'. We spoke with Marc and utilized a 3h:1v slope when calculating the passive pressure diagrams.

We have also included a memo from Marc McGinnis supporting leaving the grade at the lower elevation on the western side of the soldier pile wall.

Below, I have addressed each item outlined in the initial email sent.

- *The structural calculations shall clarify the pile depth in relation to the close proximity to the existing downslope concrete retaining wall along the access road (see photo 0341). Specifically, the geotechnical engineer and calculations shall clearly address that adequate passive earth pressure is achieved with respect to the absence of earth behind the lower wall, as well as the potential failure of the lower wall (currently has slight downslope lean).*
    - **No Changes proposed to the structural design of the stabilization wall as the wall as built per plan and meets all design criteria set forth in the permitted calculations.**
    - **The geotechnical engineer as addresses the passible earth pressure as it relates to the condition as built as well as the preference to omitting any fill on the downhill side of the stabilization wall given the current state of the (E) concrete wall.**
- *Geotechnical engineer approval of revised wall location with minimum risk statement and confirmation of their inspection/approval of the installation.*
    - **See attached Geotech memo**
- *Submit structural plans and supporting calculations.*
    - **No Changes proposed to the structural design of the stabilization wall as the wall as built per plan and meets all design criteria set forth in the permitted calculations. The approved/permitted drawings and calculations represent the design built.**
- *Clarify the minimum land use code setbacks are provided (from yards, road easements, etc.).*
    - **No changes to the site plan as it relates to the location or extent of the stabilization wall. The only change is the level of excavation/grading on the western side of the stabilization wall.**
- *Provide revised site plan with revised calculations for lot coverage, hardscape, etc.*
    - **No changes to the approved site plan as it relates to the extent of the stabilization wall, lot coverage or hardscape. The only change is the level of excavation/grading on the western side of the stabilization wall, those changes have been addressed in updated excavation plan A102.**
- *Clarify protection of the wall edge (guardrail, planters, etc.).*
    - **We have added a guardrail as the drop at certain points of the stabilization wall is now greater than 30". **

Please let us know if you have any additional questions or concerns.

Thank you in advance for your time and consideration as you review our documents.

Bree Medley
Brandt Design Group

Incl:
20279-Soldier Pile Passive Zone Leter – Geotech NW
Updated A102 Excavation plan