November 30, 2021

Linda Ritter, Senior Planner
City of Mukilteo
11930 Cyrus Way
Mukilteo, WA 98275

RE: Harbor Grove Preliminary Plat Application
9110 53rd Ave W

Dear Linda,

Please consider the following comments on the 7-lot preliminary plat application submitted by SeaPac Homes, LLC. My property is within the Rugosa Ridge subdivision and directly abuts the project site to the west. I would be one of the neighbors most directly affected by the proposed development.

A. Application Completeness. The application is not complete for the following reasons:

1. Incomplete project description. The application fails to fully describe the proposed project, which includes a series of massive retaining walls on the west and south sides of the property. The combined height of these walls is up to 20 feet in the southwest corner of the development. It is only possible to determine the height of the walls through a careful review of the grading plan (sheet 5 of 12). These walls, combined with placement of up to 20 feet of fill, are a major element of the project design and will adversely impact my property, as well as additional properties on the west boundary of this development. The project description should also be changed to more fully describe the proposed grading scheme, which places most of the fill on the western portion of the property, directly upslope from my property.

   Future dwelling location for Lots 4, 5, 6 and 7. The application also fails to disclose that Lots 4-7 are potential view lots, with the best views from the far western portion of the property. As a result, the actual location of the future residences on these lots will likely be closer to the rear setback line than shown on any of the plans. This will create additional impacts on earth, surface water and aesthetics. For the purpose of the environmental analysis, the building pads shown on the plans for lots 4-7 should be moved further west and closer to the rear setback line.

2. Variance Application. A variance application should have been submitted for the proposed 20-foot high retaining walls located in the 25' rear setback area. Under MMC **17.20.080.A.2,** maximum height of retaining walls within a rear setback is six feet. The City should view the proposed walls as a single wall since they are all located within the setback and the visual impacts that would be created. The application should include a visual analysis showing how the walls would appear as viewed from the abutting properties to the west (Rugosa Ridge Lots 3, 4, 5, and 6), from Hargreaves Place, and abutting lots on 53rd Ave W.

3. SEPA Checklist. The SEPA checklist should be amended in the same manner as the application form. There should be additional analysis under the ***Earth*** section describing the proposed grading and its impacts on the surrounding properties. There should be further information and analysis under ***Aesthetics*** identifying the retaining walls and describing visual impacts on the surrounding properties.

4. Groundwater study. The City should require a groundwater study that analyzes the location, depth and movement of groundwater on the site. The study is needed in order to evaluate impacts of large scale alteration of the site through removal of the forest vegetation, placement of up to 20 feet of fill, retaining walls and future house construction. It should identify how the presence of underlying glacial till will influence groundwater flow on and off the site. The study should establish both pre-development baseline conditions, as well as monitoring recommendations for post- development conditions. It should have specific recommendations addressing how groundwater impacts on adjacent properties to the west would be mitigated during construction and post-development.

5. Revisions to Preliminary Storm Drainage Report. See section C below for requested revisions.

B. Impacts of Large Retaining Walls

The proposed retaining walls on the west end of the property would be up to 20 feet in height, based on the grading plans dated 7/29/21 (Sheet 5 of 12). These walls would be directly adjacent to existing developed residential properties that front on Hargreaves Place, including mine. The walls would also be visible from many other vantage points in Rugosa Ridge, including from Hargreaves Place. The proposed walls would be a visual eyesore, and are incompatible with the surrounding residences and development pattern. Walls like this are typically found in large industrial projects and are not necessary for development of this property.

I have prepared a photo rendering of what a 14-foot high wall might look like behind my property (see images below). The wall design may not be perfectly accurate, but the scaling *is* accurate. Note how the wall would dwarf my 6' fence. Now imagine a 30' tall home perched at the top of the wall with all of the vegetation removed. My neighbors to the south would be facing an even taller 20-foot high wall.

Photo #1 – Looking east at development site from office window

- *6' fence*

Photo #2 – Rendering showing proposed retaining wall along my east property line.

- *14' wall height near my SE property corner*
- *6' fence*

For Lots 5, 6, and 7, the terrace area between the walls and the area at the base of the wall will become a no-man's land due to its inaccessibility to the future property owners. Due to the height of the walls, a ladder would be required to gain access to the property line. The no-man's land will accumulate leaves, debris and weeds and over time will become an eyesore as viewed from the adjacent properties to the west, including mine.

While I appreciate the applicant's proposal to landscape the terraced area between the retaining walls, the landscaping will likely never be maintained and will most likely die. It will be too difficult for the future property owners to access it, and the landscaping would serve no real benefit to the homeowner.

C. Drainage, Surface Water and Groundwater

The large scale alteration of the property would radically alter the amount of surface water runoff, as well as groundwater movement on and off the subject property. There is a high likelihood that additional surface and/or groundwater would flow from the project site onto adjacent properties in

Rugosa Ridge, including mine. This is because the site naturally slopes down to the west. Placement of a large amount of fill material will put added pressure on the groundwater table, resulting in the water being squeezed out and away from the site. My property sits below the west boundary of the site and could be impacted by changes in groundwater flow. It has existing drainage issues that have required extensive backyard improvements to fix.

French drain. The proposed french drain to be installed across Lots 4-7 will be buried under approximately 10-12 feet of fill dirt (see Sheet 7 of the preliminary plans and Figure 1 below). How will this drain be maintained? What will happen if it fails? Will it be possible to bring equipment into the back yards of future homeowners and dig a 12 foot deep trench? Future property owners will have no incentive to maintain the drain systems because failure would mostly impact other properties outside of the development. My guess is this drain will never be maintained or repaired, and if it fails, it will cause major drainage issues for my property and my neighbors. Such a failure would be nearly impossible to detect and locate, much less to fix. There is also a possibility that future homeowners will cover the drain area with patios and other hard surfacing, making it less effective.

The french drain will flow back to the east in a pipe connected to the detention system. The slope gradient of this pipe is specified at a minimum of 1%, which is barely enough for the water to flow in its intended direction (see Sheet 7). In order to flow back to the east, this drain will need to be installed at a minimum elevation of 393' because the catch basin elevation will be set at 391' (Sheet 7 and Figure 1, below). The french drain collection pipe will be *above* the existing grade level of approximately 386' to 392'. This is significant because the drain will be at too high of an elevation to capture all of the site's subsurface drainage. It would be located above the layer of glacial till that underlies the site. Because of the site's sloping topography, water is likely pass *under* the pipe, contact the glacial till layer, and migrate to the west. And what would happen if the site were to experience post-development settlement, changing the gradient of the pipe? Could it potentially stop flowing? These are valid questions since the proposal is to place a massive amount of fill material on the site.

The effectiveness of this project's subsurface drainage system will be reduced as a result of the applicant's design objective of sending collected water back to the east. System improvements, including the french drain, would be installed at too high of an elevation. The City should require the applicant to prepare an alternative design that places the subsurface drainage collection system at a lower elevation to more effectively capture subsurface water. The design should be prepared in close coordination with a groundwater study and a revised soils study. Long-term access and maintenance provisions should be included for this or any system.

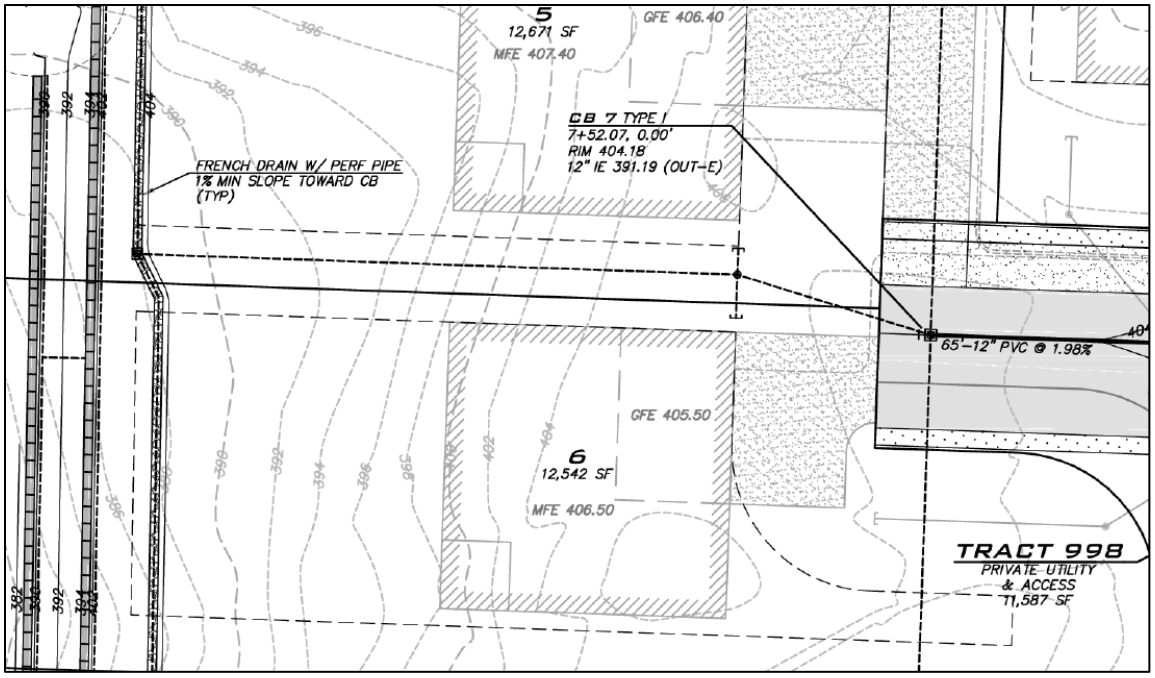

Figure 1 – French drain and connection to stormwater collection system

The applicant's drainage scheme is attempting to re-engineer the natural drainage pattern of the site and direct surface and subsurface water in a manner that is contrary to the forces of gravity. It ultimately will not work and will cause a hazard to downslope properties.

Future dwelling location and improvements. The storm drainage plan (Sheet 7) and Preliminary Storm Drainage Report – 9/28/21 (Figure DC)- shows preliminary building and driveway locations for the lots in the subdivision. For Lots 4, 5, 6 and 7 the pads are shown as being pushed as far east as possible, close to the access road. However, these lots will have views of Puget Sound, which makes it highly likely the future houses will be moved as far west on the lots as possible and closer to the rear setback line in order to capture the views. This means longer driveways than shown on the plans, with a greater amount of impervious area and stormwater runoff.

If the future dwellings on Lots 4, 5, 6, and 7 are to be constructed in the locations shown on the plans, why is it necessary to fill and grade all the way to the west property line?

The future homeowners on Lots 4-7 will likely construct decks, patios and walkway improvements, since these are common and expected improvements for any home. These improvements, if constructed in the rear yard, are likely to cause uncontrolled stormwater runoff that will flow to the west and impact my property and other neighboring properties in Rugosa Ridge.

Retaining wall footing drains. Where do these drains discharge? If they simply infiltrate into the ground, the water will end up in my back yard as well as my neighbors. If they discharge at a point, the applicant should be required to obtain off-site easements for discharge and conveyance of the water, as well as

approval from the City. Discharge of water from the retaining wall footing drains to any lot in Rugosa Ridge will adversely impact that lot and must be prohibited by the City. Additional design details should be requested by the City

The applicant's storm drainage report and plans should be updated to address *actual* future building locations on Lots 4-7; longer driveways; future back yard improvements; french drain system design, access and maintenance and; retaining wall footing drain discharge.

D. Grading, Fill, Soils and Erosion Impacts

The project includes a mass grade of the site, resulting in up to 15 – 20' of fill to be placed on the western and southern portions of the property (see Sheet 5 of the preliminary plans). The applicant submitted a Geotechnical Engineering Study dated July 30, 2021.

Use of on-site soils as structural fill. The applicant has proposed using 10,200 cubic yards of soils as structural fill, with approximately 5,100 cubic yards consisting of on-site material and the same amount imported to the site. In evaluating the use of on-site soils for fill, the geotechnical study states the following on page 8:

> *The in-situ soils encountered at the subject site have a moderate to high sensitivity to moisture and were generally in a damp to moist condition at the time of exploration. Soils anticipated to be exposed on site will degrade if exposed to wet weather and construction traffic. Compaction of the soils to the levels necessary for use as structural fill may be difficult or infeasible during wet weather conditions.*

This statement creates doubt as to whether the on-site soils can be used as structural fill. Because they have a "moderate to high sensitivity to moisture" the applicant should be required to submit inspection reports during excavation and placement of fill to verify the use of on-site soils is feasible. If the soils are unsuitable, they will need to be exported from the site and more material imported.

Potential soil erosion impacts during construction. The applicant's environmental checklist states on page 4:

> *Erosion is not expected to occur as a result of clearing, construction, or use.*

This statement is dismissive of potential impacts due to mass grading, site topography and the likeliness of an extended period of soils being exposed to wet weather during construction. Placement of up to 20 feet of fill may require the soils to be "pre-loaded" in order to allow proper settlement and compaction as structural fill. During pre-loading, the soils would be exposed to rain storms and will likely become saturated at times, leading to potential erosion impacts. If erosion occurs, it will likely impact downslope properties to the west and south of the site, and possibly Hargreaves Place. Potential soil erosion impacts during construction need to be identified in the application documents and analyzed by the City during the project review.

Settlement of Fill Materials. Given the massive amount of fill on the site, it is possible that portions of the site may experience post-development settlement, particularly if site work is not performed to proper specifications. What assurances or contingencies can be put in place to address settlement of the filled areas and ensure the site is developed to proper specifications?

The Applicant's mass grading proposal is out of character and incompatible with the surrounding development pattern. This type of grading scheme is more typical of large commercial and industrial developments that do not have the same potential to impact residential properties. The large, flat graded area, deep fills, and tall retaining walls would combine to cause harm to my property, as well as other properties to the north and south.

E. Building Height of Future Residences.

Under **MMC Section 17.20.020 - Structure bulk matrix** – maximum building height in the RD 12.5 zone is 30 feet. The finished grade on Lots 4 through 7 is proposed to be elevated by up to 20 feet above existing grade. Calculation of building height based on the finished grade would result in future residences being allowed to have 30 feet of building height on top of 20 feet of fill for an overall height of up to 50 feet above the existing ground level. Applying the building height standard in this manner would be absurd and would create significant impacts on adjacent properties. It would amount to a building height bonus. Buildings located at or near the rear setback line would tower over neighboring houses and yards, resulting in light and shadow impacts and loss of privacy.

The City should impose a restriction on the project that building height for future residences located on fill shall be calculated from existing grade. Existing grade should be established by an approved site topography map. Variances to the building height requirement should be prohibited.

F. SEPA Analysis

The City of Mukilteo should conduct a thorough analysis of the project under SEPA. This includes impacts under the following elements of the environment:

- Earth (erosion, grading and retaining walls)
- Water (ground and surface water)
- Plants and Animals (additional wildlife on site not mentioned in the environmental checklist, including mountain beaver, owls, hawks, and eagles)
- Aesthetics (visual impacts and compatibility; building height).

The SEPA responsible official should use his/her authority under MMC 17.84.160 to require a review of alternative design(s) with reduced impacts on surrounding properties, and to place conditions on the development. The cumulative impacts of this project related to surface water and drainage, combined with the impacts of the recently approved project to the north (SP 17-003) should be considered.

G. Construction Impacts

Construction Easements. The applicant should be required to obtain construction easements from abutting property owners for installation of grading and retaining wall improvements located within five feet of the exterior boundary of the lot. Given the project scope and scale of improvements, it is highly unlikely that the proposed work can be completed in a manner that does not require access to the abutting properties, the removal of fences, tree work, etc.

Construction traffic.

At a minimum, there will be hundreds of truck trips to the site using 53rd for the primary access route. There should be an evaluation of truck traffic and haul routes, including the suitability of 53rd for truck access.

H. Summary

It is unfortunate the applicant did not reach out to the adjacent property owners of Rugosa Ridge, and the HOA prior to submitting the land use application. The lack of early communication has put property owners in the difficult position of having to respond to a development proposal that, in its attempt at creating view lots where none currently exist, also creates unacceptable impacts on adjacent properties in Rugosa Ridge. The application should be returned for additional studies and information, and perhaps major revisions in order to comply with city code and eliminate damaging impacts on surrounding properties. My property would be damaged by this proposal through impacts on ground and surface water, soil erosion and proximity of a monstrous, 14-foot retaining wall. Impacts to my neighbors to the south would be even worse. The proposed development is not in character with other single-family areas in the neighborhood, or the city as a whole. With its massive walls and grade changes, it is more like an industrial development that strips all native vegetation and results in a huge, perfectly flat building pad.

Thank you for considering these comments.
Sincerely,

David Tyler
9055 Hargreaves Pl
Mukilteo, WA 98275