



April 21, 2023

Rahmi Kutsal Perteet on Behalf of City of Mukilteo 2707 Colby Avenue Suite 900 Everett WA 98201

RE: Harbor Grove – Second Review SD-2021-001/ENG-2021-019/SEPA-2021-010 Blueline Job No. 21-073

Dear Rahmi Kutsal,

This letter is in response to your review of the Harbor Grove project. The plans have been revised per the comments in your letter dated December 20, 2022. Below is a list of each comment with our responses in bold.

<u>Plans</u>

General

1. Provide Street Name for TRACT 998 on all applicable sheets.

Street name for TRACT 998 labeled throughout plan set as "Road A".

2. Redlines showing that many property/centerline dimensions are not reflecting the recorded survey.

Dimensions have been reviewed/revised to reflect the most current survey prepared by Pacific Coast Surveys, Inc. dated January 4, 2022 provided under separate cover.

Sheet 2 of 21

1. GENERAL NOTES 3: Provide Project Surveyor's Name and Phone Number.

Project Surveyor's Name and Phone Number have been provided on Sheet TD-01.

2. GENERAL NOTES 4: Change "IS RESPONSIBLE" to "SHALL BE RESPONSIBLE" and Provide Project Engineer's Name and Phone Number.

Notes have been updated accordingly. Project Engineer's Name and Phone Number have been provided on sheet GN-01.

Sheet 3 of 21

1. EX 8" CI WATER Note: Change "CONTRACTOR TO POTHOLE" to "SHALL POTHOLE".

Note has been updated accordingly.

Sheet 5 of 21

1. Provide a trench restoration detail for the trench cut needed to install the new storm drain system.

A trench restoration detail has been added to Sheet DT-02. A note referencing Sheet DT-02 has been added to Sheet TP-01.

2. Add CB protection inserts to the existing CBs along 92nd it MW where pipe trench work will be occurring.

CB protection inserts have been added to existing CBs along 92nd St SW accordingly.

3. Show CB protection inserts for the proposed catch basin locations, the ones that will have a grated lid.

CB protection inserts have been added to proposed catch basins with grated lids. Proposed grated CB's shown on TP-01 screened back.

4. Include check dams along the interceptor swales.

Check dams have been added along the interceptor swales. Check dam detail referenced and added to TD-01.

5. EX 8" CI WATER Note: Change "CONTRACTOR TO POTHOLE" to "SHALL POTHOLE".

Note has been updated accordingly.

6. PERMANENT STORM Note: Change "TO BE" to "SHALL BE INSTALLED"

Note has been updated accordingly.

Sheet 6 of 21

1. Fill in surveyor's name and phone number at the end of Site Grading and Construction SWPPP Note #1.

Project Surveyor's Name and Phone Number have been provided on Sheet TD-01.



2. Change all suggestion and recommendation language of "SHOULD", "MUST", etc. to "SHALL", see the attached Sheet 6 at the end of this memorandum for all the related redlines.

All notes have been updated accordingly.

Sheet 9 of 21

1. There is a wall at southeast and south of hammerhead and access to Lot 7 up to 10' high, there must be a fence on top of this wall for public safety.

Fencing and/or guardrails are proposed on top of this wall.

Sheet 10 of 21

1. The 10' private drainage easement should be called out as a 10' private sanitary sewer easement.

Correct, there is no need for a drainage easement on Lot 4. Easement callouts updated accordingly.

2. Revise the placement of the French Drain with Perf Pipe leader line.

Leader line has been revised.

3. EXISTING UTILITIES Note: Change "CONTRACTOR TO VERIFY" to "SHALL VERIFY"

Note has been updated accordingly.

Sheet 11 of 21

 It is acknowledged that the applicant has bypassed the existing detention vault on 92nd. However, the existing conveyance system that you are connecting to does not currently see these flows from the project site. Therefore, this system will see an increase in runoff flows and the applicant will need to provide a quantitative analysis of the existing system up to its discharge point on the west side of Hargreaves PI to make sure the system has capacity to handle the increase in flows.

A quantitative analysis of the existing system downstream of the proposed connection has been completed and included with this submittal.

2. The existing pipe on 92nd it needs to be upsized to at least a 12" pipe. You cannot go from a 12" pipe and then downsize to an 8" pipe.

The proposed vault outfall has been updated to bypass this location and will therefore no longer be downsizing to an 8" pipe.



3. Provide detail. Dimension of the pad, type of rock used, thickness of pad and any geosynthetic material used for separation.

Callout with dimensions, thickness, and type of rock used has been added to this sheet. Reference to the DOE manual included.

4. Provide details for cleanouts when located in paved areas and when located in landscaped areas.

Cleanout detail has been referenced in the SDCO/Yard Drain Note and added to Sheet DT-02.

5. Vault footing drain is set at 392.5. The IE of the drainpipe heading to CB 4 will need to be lowered.

Footing drain configuration revised to eliminate conflict with outfall drainpipe.

6. Show location of wall footing connections.

Wall footing drain connections have been added to the plans.

7. French Drain detail is not on this sheet, update reference.

French Drain detail reference has been updated to Sheet PS-01.

8. Raise the IE of these pipes entering the vault as high as you can to limit the amount of backwater in the system. For sure bring the IE up above the top of dead storage elevation so that there will not be permanent standing water in the pipe.

IEs into the vault have been raised to limit backwater in system and eliminate permanent standing water in the pipes.

9. This note does not apply to CB 1.

Note has been removed.

10. Provide a yard drain detail.

A yard drain detail has been added to Sheet DT-02.



11. Where does the underdrain system for this rain garden connect to?

Underdrain removed from rain garden to reflect City of Mukilteo rain garden detail. Existing culvert utilized as overflow.

12. How does the existing storm drain intake pipe interact with the rain garden? If it is located at the bottom then it no longer functions as a rain garden, but as a swale. Refine design as needed to accommodate a rain garden design.

The existing storm drain intake pipe is designed as an overflow for the proposed rain garden. The top of the rain garden will be set at 395.96, the IE of the existing culvert.

Per Mukilteo Development Standards /. 6.3.1 catch basins shall be spaced no greater than 150 feet. The civil plans show 271' of pipe between catch basins CB 1 and CB 1A on 92nd St SW. Please add another type 1 catch basin within this segment.

An additional Type I CB has been added within this segment ensuring the proposed system meets catch basins separation requirements.

14. EX 8" CI WATER Note: Change "CONTRACTOR TO POTHOLE" to "SHALL POTHOLE".

Note has been updated accordingly.

15. There is a wall at southeast and south of hammerhead and access to Lot 7 up to 10' high, there must be a fence on top of this wall for public safety.

Fencing and/or guardrails are proposed on top of this wall.

Sheet 12 of 21

1. Existing 8" pipe on 92nd it needs to be upsized to at least a 12" pipe.

The proposed vault outfall has been updated to bypass this location and will therefore no longer be downsizing to an 8" pipe.

2. Based on the conveyance design it looks like CB 7 can be made shallower.

CB 7 has been made shallower. Refer to sheet RP-01.

Sheet 13 of 21

1. Specify type of lid and call out that steps should be provided at each of the 24" access openings.

Callouts revised on Sheet VT-01 accordingly.



2. Show the footing drain connection to the pipe heading to CB 4.

Footing drain connection has been added to VT-01.

3. Conflict here between vault footing drain and vault outlet pipe.

Vault footing drain connection revised to eliminate conflict with outfall pipe.

4. Call out steps with the other 5'x10' access.

Callouts revised on Sheet VT-01 accordingly.

Sheet 14 of 21

1. Drainage report states that the 2014 manual is being used for this project. Confirm which should be used by date full application is made.

Preliminary plat application was deemed complete on October 5, 2021, therefore the 2014 manual will be used for this project. Note revised to reflect this.

2. The sump at the bottom of the vault should be a 54" sump.

The sump at the bottom of the vault has been updated to be 54".

3. The vault footing drain is shown in conflict with the 12" outlet pipe.

Vault footing drain connection revised to eliminate conflict with outfall pipe.

4. Per calcs the upper orifice should be 1-1/8"

Upper orifice has been updated to be 1-1/8".



Sheet 15 of 21

1. Applicant shall address the concerns expressed in the September 27, 2022 letter from Rugosa Ridge Homeowner's Association.

Responses provided below.

- a. Storm Drainage: Rugosa Ridge Homeowner's Association mentioned concerns regarding the mechanical pump and pressure system design on the following items:
- Concern that the pump system would likely never be maintained as it is not visible or accessible to any of the future property owners.

Response: Subject plat is providing a variable width private drainage and maintenance access easement between Lot 5 & 6 and along the west portion of Lots 4-7 to allow access to inspect/maintain pump as necessary. Personnel to inspect/maintain pump will access the variable width private drainage and maintenance access easement from Tract 998, continue west along Lot 5 & 6 shared property line, travel north towards Lot 4 to proceed around retaining walls, and travel south to the pump station. Gates for access will have combo locks installed or electronic keypads for rear yard access.

Homeowners Association (HOA) will be responsible for maintaining/repairing the pump. Easements as described above shall be provided to maintain/repair the pump. Maintenance covenant shall be provided to hold HOA responsible to maintain/repair the pump (City attorney to confirm documentation required to hold HOA responsible). Subject easements and covenants shall be recorded with the final plat map and CC&R's. All lots will share the cost of the stormwater pump maintenance and repairs. There will be a reserve budget within CC&R's with language that allows for this. If HOA does not maintain pump according to maintenance covenant, Liens could be put on homes (City attorney to confirm documentation required to hold HOA responsible). Note added to SP-01 and PS-01.

The pump will have floats installed that are connected to an alarm panel located on Lot 6. The pump will directly connect, if required by City, to Lot 6 electrical service. The pump would be directly connected if required by city to Lot 6 electrical service. Pump system will be connected to Temporary power until home is built on Lot 6. Secure/lockable outdoor duplex control panel will have a battery backup alarm. If city would allow, developers consultant has used these systems in the past that had a separate 100-amp panel installed with these units installed on a rail system. • Concern that HOA's typically do not own and maintain this type of highly specialized stormwater system.

There will be language within CC&R's that will require an HOA reserve budget dedicated to pump maintenance/repairs. This budget allows the HOA to hire the appropriate consultant for pump maintenance/repairs.

• Concern that if there is a simple power failure could cause a serious flood event that would directly impact the adjacent properties and that future homeowners would not be made aware of the pump system failure.

The pump will have floats installed that are connected to an alarm panel located on Lot 6 near the private access road visible to majority of property owners. The pump will directly connect, if required by City, to Lot 6 electrical service. Pump system will be connected to temporary power until home is built on Lot 6. If city would allow, developer's consultant has used these systems in the past that had a separate 100-amp panel installed with these units installed on a rail system.

1. Is pumping of stormwater a method that has been approved and implemented successfully in the City?

City to provide response. If city would allow, developer's consultant has used these systems in the past that had a separate 100-amp panel installed with these units constructed on a rail system.

2. If the pressurized pipe (i.e., force main) that passes underneath the retaining walls were to fail, how would it be repaired/replaced and how long would it take?

Proposed force main configuration has been revised to avoid running beneath retaining walls.

3. If the project were to be built as proposed, how can the City legally compel the developer and future Harbor Grove HOA to monitor, maintain, repair/replace and fund the stormwater system? What recourse would Rugosa Ridge homeowners have in the event of a system failure and flooding?

City to provide response. Homeowners Association (HOA) will be responsible for maintaining/repairing the pump. Easements as described above shall be provided to maintain/repair the pump. Maintenance covenant shall be provided to hold HOA responsible to maintain/repair the pump (City attorney to confirm documentation required to hold HOA responsible). Subject easements and covenants shall be recorded with the final plat map and CC&R's. All lots will share the cost of the stormwater pump maintenance and repairs. There will be a reserve budget within CC&R's with language that allows for this. If HOA does not maintain pump according to maintenance covenant, Liens could be put on homes (City attorney to confirm documentation required to hold HOA responsible). Note added to SP-01 and PS-01.

b. Hydrology Study: Rugosa Ridge Homeowner's Association provided concern stating that the project is required to submit a Hydrology Study that will include useful information about how groundwater and surface water runoff from the development could affect the adjacent properties in Rugosa.

Refer to the Hydrology Impacts Assessment provided by Kindred Hydro, Inc dated April 19th, 2023.

c. Grading and Retaining Walls: Rugosa Ridge Homeowner's Association provided concern with regards to proposed grading, noting that they expect a detailed analysis of impacts, along with findings stating how it complies with (or violates) city code requirements.

Project grading/wall design will comply with City of Mukilteo municipal code and development standards.

2. CB 9 detail shows "inlet from CB 9". This should be "inlet from CB 10" from the pump structure.

Detail has been updated accordingly.

3. Please address how the pump system is accessed for inspection and maintenance, and clearly note ownership/operation/maintenance responsibilities on this sheet.

Subject plat is providing a variable width private drainage and maintenance access easement between Lot 5 & 6 and along the west portion of Lots 5-7 to allow access to inspect/maintain pump as necessary. Personnel to inspect/maintain pump will access the variable width private drainage and maintenance access easement from Tract 998, continue west along Lot 5 & 6 shared property line, travel north towards Lot 4 to proceed around retaining walls, and travel south to the pump station. Homeowners Association (HOA) will be responsible to maintain/repair the pump. Easements as described above shall be provided to maintain/repair the pump. Maintenance covenant shall be provided to hold HOA responsible to maintain/repair the pump (City attorney to confirm documentation required to hold HOA responsible). Subject easements and covenants shall be recorded with the final plat map and CC&R's. Note added to SP-01 and PS-01 to clearly note ownership/operation/maintenance responsibilities.

4. Specify how the pump line can be serviced, repaired, or replaced under the walls when it becomes necessary.

Pump design has been reconfigured so pump line is no longer running under the walls in case it becomes necessary to service, repair, or replace. Private drainage and maintenance access easement has been provided for the pump and pump line.

Sheet 21 of 21

1. The rain garden detail has no information about a liner or under drain system. Update detail to include this information.

Underdrain and liner removed from rain garden to reflect City of Mukilteo rain garden detail. Existing culvert utilized as overflow.

Storm Drainage Report

Cover Sheet:

1. Include project address and parcel number, applicant's phone number, and Engineer's phone number.

Project address and parcel number, applicant's phone number, and Engineer's phone numbers have been added to the cover sheet.



Page 1.2

1. Need to state somewhere in the report whether groundwater wells and septic systems are onsite or within 100 feet of the site.

Given information for project site (including as-builts, GIS, and survey) it is assumed that groundwater wells and septic systems are not present onsite or within 100 feet of the site. This information has been added to the report.

2. If permit application was deemed complete prior to June 30, then the applicant can use the 2014 manual. Otherwise the 2019 manual needs to be used. 2014 and 2019 are both referred to throughout this report. This inconsistency needs to be corrected.

Permit application was deemed complete on October 5, 2021. Therefore, the 2014 manual will be used.

Page 2.1

1. Shouldn't the basin be the Smuggler's Gulch basin or the Puget Sound basin instead of the Snohomish River basin?

Report has been updated to reference Smuggler's Gulch basin.

2. A wet vault is a basic treatment BMP. Revise design to include an approved enhanced treatment BMP. Smugglers Gulch Creek is a stream identified on Mukilteo Critical Areas Maps and as defined under local critical areas ordinance. A segment of this watercourse is identified as Type F (Fish use potential) near the marine shoreline. Stormwater from the project has been designed to discharge into this watercourse. Therefore, in comparison to Ecology manual section V-/.4, it is understood that this action would meet applicable criteria for "Discharge directly to fresh waters or conveyance systems tributary to fresh waters designated for aquatic like use or that have an existing aquatic life use".

Enhanced Water Quality Treatment Requirements will be met by utilizing a Contech Modular Wetland System (MWS).

Figure I—1.1 and Table I—1.1

1. Update Manual version if necessary.

Figure I-1.1 and Table I-1.1 have been updated to the 2014 manual.

Page 3.1

1. Use Possession Sound or Puget Sound Watershed instead of Snohomish River Basin.

Basin has been updated to be Possession Sound.



2. Use Smuggler's Gulch sub-basin instead of Everett Drainage sub-basin.

Sub-basin has been updated to be Smuggler's Gulch.

Page 3.2

1. Smuggler's Gulch basin instead of Snohomish River Basin.

Sub-basin has been updated to be Smuggler's Gulch.

2. There is no discussion about the condition that the existing drainage system is in. Please add this discussion for each downstream route.

Discussion about the condition of the existing drainage system has been added to Section 3 of the drainage report.

Page 3.3:

1. Smuggler's Gulch basin instead of Snohomish River Basin.

Sub-basin has been updated to be Smuggler's Gulch.

Page 3.5:

1. Photos 1, 2 and 3 do not show up on the Downstream Exhibit, please revise.

Photos 1, 2, and 3 have been added to the Downstream Exhibit.

Page 4.9:

1. Enhanced treatment is required.

Enhanced Water Quality Treatment Requirements will be met by utilizing a Contech Modular Wetland System (MWS).

Page 4.11:

1. Where on the plans is BMP T5.13 enforced? Include a detail showing this soil depth section.

A detail has been added to Sheet DT-02 of the plans to show soil depth section. BMP T5.13 will be applied to all landscaped areas onsite.

Page 8.1:

1. Include pump maintenance.

Pump maintenance information has been added to the drainage report.



Stormwater Pollution Prevention Plan (SWPPP)

Cover Sheet

1. Delete "w" in the address line.

Address line updated.

Page 23

1. Per the submittal, there is a rain garden proposed to be installed, which is LID BMP that will need to be protected.

SWPPP has been updated accordingly. Interim fencing will be provided around the location of the Rain Garden.

Page 25

1. Discharge points are not called out on the site map. Please add.

Discharge points have been added to the site map (TP-01).

<u>Planning</u>

Preliminary Plat Map (Sheet 1) Site Data

1. Number of lots proposed is 7.

CV-01 revised accordingly.

2. The projects zoning district is RD 12.5 with a minimum lot size of 12,500 square feet. Lot averaging is not applicable. Sheet 1 of the civil drawings includes the lot sizes within each lot boundary. Lot 3 is shown as 12,415 square feet, below the minimum lot size. See Table 1 highlight for Lot 3 below. Also note that Lot 4 is at 12,501 square feet. Adjustment to Lot 3's size is necessary to meet minimum lot size. Attention to maintaining Lot 4's lot size is necessary as well as the modifications to Lot 3 might impact Lot 4.

Lot sizes updated to be at least 12,500 sf per zoning code.

3. Lot 6 appears not to meet the minimum lot dimensional standards.

Lot 6 revised to meet minimum lot dimensional standards.



4. Tract 999 does not meet the definition of open space. The applicant is proposing feeding 1,812 square feet to neighbor. It is unclear from the drawings the boundary of Tract 999 to be deeded; however, it appears to follow an existing driveway. City should review this to determine the proposed feeding is acceptable.

Tract 999 leader label added to clarify extents of Tract 999. Understood that City shall review this to determine the proposed feeding is acceptable.

5. It appears that there is an existing storm drainage line and catch basin within the abovementioned area and a new line from the existing catch basin to a new one in center of new street. An easement may be necessary for the new storm line in this area if it will eventually not be part of the plat.

Note provided throughout plans stating that covenant shall be prepared at final plat to provide access for Parcel #within Tract 999 to maintain proposed retaining wall and storm system.

SEPA Checklist Revisions (to be reviewed by City Staff)

Section A, Background, Question 11

1. Revise the project description as the minimum lot size for this proposal is 12,500 square feet.

Comment addressed. Refer to the SEPA Checklist provided under separate cover dated February 22, 2022.

Section B, Environmental Elements, Question 8(L)

1. Revise the response as this property is not eligible for transfer of density.

Comment addressed. Refer to the SEPA Checklist provided under separate cover dated February 22, 2022.

Section B, Recreational Use, Question 12(B)

1. Revise as it should be "recreational" not "residential."

Comment addressed. Refer to the SEPA Checklist provided under separate cover dated February 22, 2022.

Landscaping Sheets LS—01, LS—02, and DT—02.

1. Tree Plan is acceptable - root management zones indicated on sheet TR-01.

Noted, no revisions made.

2. TR-02 has listing of trees and arborist observed tree condition text.

Noted, no revisions made.

3. Separate Arborist Report not included in submittal but information on TR-02 has tree information.

Arborist information provided under separate cover.

4. Tree retention meets 15.16. 05OC1.Table on TR-01 indicates 25 significant trees required and retained.

Table TR-01 revised to reflect current site plan and tree retention quantities.

Survey Review Comments:

A title report was not provided, City requires easements to be shown and labeled with the recording number, a title report should be submitted to review and confirm the easements. Please see the attached survey redlines by ECM, attached at the end of this memorandum.

Title report provided under separate cover.

1. City of Mukilteo file number should be added to each sheet of the plans. (SD-2021-001/ENG-2021-019/SEPA-2021-010)

File number added to the bottom right corner of each sheet of the plans.

2. A recent Title Report (Subdivision Guarantee) should be submitted to City for review and crosscheck.

Title report provided under separate cover.

3. The legal description on Sheet 1 does not appear to be correct.

Legal description provided on Sheet 1 reflects the legal description provided in the subject property title report.

4. Easements cannot be verified without a Title Report. Easements were highlighted as checked, but they have only been checked to other surveys of record or other sheets within the plan set.

Noted.



5. There is a need for an easement at the NW corner of the site, there is currently a gap between the plat boundary and the existing offsite easement.

A 4' x 23' offsite sewer easement added to plans. Sewer easement exhibit provided under separate cover.

6. Several easements are noted as "to be relinquished" City will need to determine what proof is required to confirm that relinquishments have been accomplished.

Noted.

7. Storm related easements needs to be labeled on storm sheets.

Easement labels added throughout plan set.

Geotech

 Retaining Walls: ESN's geotechnical report provides recommendations for retaining walls and Blueline's civil plans indicate that a two-tiered retaining wall system will be constructed near the western property line and a single retaining wall will be constructed near the southern property line. However, there were no details for the construction of the retaining walls provided on the plans. According to the comment response letter from the previous city review, this omission was noted by the city and Blueline's response indicated that they are in the process of consulting with ESN to provide the necessary details.

Onsite retaining walls shall be designed as Lock & Load. Retaining wall note added to GP-01. ESNW has been kicked-off to prepare wall details and calculations as the onsite grading design has been finalized with this submittal.

Recommendations

A. Utilities: Per Comment 5, Blueline's civil plans indicate that a 1.5-inch diameter force main pipe will direct stormwater from the wall drains and interceptor drain along the west edge of the site to a Type 1 catch basin with the final run of pipe extending vertically from the base of the upper wall approximately 15 feet to the catch basin. We recommend evaluating whether an energy dissipation device or system should be provided for the force main inlet. Blueline's civil plans also indicate that the force main pipe will extend beneath the retaining walls within approximately 2 feet of the lower wall foundation and 8 feet of the upper wall foundation. We recommend that the force main pipe be installed inside of ductile iron sleeves beneath the wall to protect the pipe from the load of the walls and to provide access to the pipe in the event that maintenance is required.



A downturned elbow has been added to CB 9 to dissipate flows at the force main outfall. Force main from pump structure to CB 9 reconfigured to avoid running beneath walls, thus, DI sleeves will not be provided.

B. Existing grades: Per Comment 7, Blueline's civil plans indicate that structural fill will be placed in the area of existing moderate to steep slopes. We recommend that any fill placed on slopes exceeding 20% be placed in horizontal lifts on benches cut into the slopes and that details outlining the benching requirements be included on the grading sheets.

Benching note added to GP-01. ESNW has been kicked-off to prepare benching details as the onsite grading design has been finalized with this submittal.

C. Structural Fill: Per Comment 8, ESN's report provides guidance on structural fill placement and compaction as well as comments regarding utility trench backfill. General note 11 on Sheet 2 of Blueline's civil plans states that "trench backfill of new utilities and storm drainage facilities shall be compacted to G% maximum density (modified proctor) under roadways and G0% maximum density (modified proctor) off roadways". We recommend that the appropriate compaction percentages be provided in accordance with the governing jurisdiction(s).

General note 11 (now 12) is copied from City of Mukilteo 2019 Amended Development Standards, Appendix B – Construction Notes. Additional note (11) included to reference geotechnical report for structural fill specifications.

Please call or email me with any concerns at 425-250-7275 or kkeating@thebluelinegroup.com.

Sincerely,

Wastel Vanterg

Kristal Keating, PE Project Manager

CC: Glen Belew (glen.b@seapachomes.com), Nate Perkl (nate@perklsproperties.com)

