















Memorandum

TO: Rachael N. Brown
PROJECT NO: 2022-002
PROJECT NAME: South Hill Support Campus Improvements – phase 1

DATE: 06.28.2023
FROM:
SUBJECT: CUP Review Comment Response #2
Permit #: PLCUP20220128

The following is the Design Team’s response to the CUP Review comments received on 05/01/2022 via email from Rachael N. Brown:

Discipline	Review Comment	Response
Engineering Review		
Civil 	<ul style="list-style-type: none"> Provide the WHMM calculation printout to show that the infiltration trenches are feasible, infiltrate 100% and meet the flow control standard. 	<ul style="list-style-type: none"> WHMM calculation printouts have been added to the storm report and show 100% infiltration, meeting the flow control standard.
	<ul style="list-style-type: none"> Provide an agreement from the owners of 1201 39th Ave SW, that the overflow of the infiltration trenches can be conveyed to the existing pond. [Civils, pg 6] 	<ul style="list-style-type: none"> Stormwater agreement between parties has been provided.
Civil 	<ul style="list-style-type: none"> Revise the WWHM calculation for the infiltration trench. Provide further information from the Geotech that a corrected infiltration rate of 5in/hr is appropriate for the location of the infiltration trench. The most recent geotech report referenced corrected rates of 1.1 and 2.5 in/hr respectively for infiltration tests 3 and 4. 	<ul style="list-style-type: none"> The stormwater infiltration system is within the medium infiltration along the east side of the site where the Vashon Advanced Outwashed is approximately 12’ in depth and has a corrected infiltration rate of 5 in/hr. This information can be found in the Geotechnical report, attached with this submittal, on page 21.
Civil	<ul style="list-style-type: none"> The information presented on page 29 and 30 of the drainage report is not legible. [drainage plan, pg 30] 	<ul style="list-style-type: none"> The pages of the drainage report have been reprinted to be legible.
Civil 	<ul style="list-style-type: none"> Provide a sheet index for the site plan. [site plan, pg 1] 	<ul style="list-style-type: none"> Sheet index has been provided.
Civil 	<ul style="list-style-type: none"> Provide the survey datum being used. NAVD 88 is city standard. [site plan, pg 2] 	<ul style="list-style-type: none"> City Datum has been shown on the plans.
Civil 	<ul style="list-style-type: none"> Show the phased approach within the site plan sheets. Be sure to include the draft easement, overflow, fencing, etc. [site plan, pg 1] 	<ul style="list-style-type: none"> A Phase 1 site plan has been added to show the first phase of constructing the stormwater infiltration overflow pipe and outfall.
Civil 	<ul style="list-style-type: none"> Show the new location of the overflow and easement to the west as discussed with the city 2.7.23 [site plan, pg 9] 	<ul style="list-style-type: none"> The revised location of the overflow and easement has been shown on the plans.
Civil 	<ul style="list-style-type: none"> List #1 is for projects proposing 2,000-5,000SF of new plus replaced hard surfaces (NPRHS). Projects proposing to exceed 5,000SF or more of NPRHS, must meet List #2, #3 or the low 	<ul style="list-style-type: none"> The drainage report has been revised to meet the LID performance standard as suggested.

	<p>impact development performance standard. Additionally, it does not appear that the project is meeting the intent of the Ecology manual for MR 5. Bioretention is not being used for infiltration for MR 5, but rather for treatment for MR 6. Choosing to meet the LID performance standard would eliminate this conflict. [drainage plan, pg 11]</p>	
<p>Civil</p> 	<ul style="list-style-type: none"> Provide a basin map within the preliminary drainage report showing the pre-developed and post-developed land-uses. Also include a table breakdown depicting impervious and pervious areas in acres [drainage report, pg 68] 	<ul style="list-style-type: none"> The drainage report has been updated to include basin maps and tables of pre-developed and developed land uses.
<p>Civil</p> 	<ul style="list-style-type: none"> The geotech report on page 77 of the report mentions to use a design infiltration rate of 1.1 inches per hour. Update the calculation and/ or provide reasoning as to why 5 inches per hour was used for the WWHM modeling. [drainage report, pg 77] 	<ul style="list-style-type: none"> The stormwater infiltration system is within the medium infiltration along the east side of the site where the Vashon Advanced Outwashed is approximately 12' in depth and has a corrected infiltration rate of 5 in/hr. The lower design infiltration rate from the geotechnical report was provided if shallow infiltration was selected. This information can be found in the Geotechnical report, attached with this submittal, on page 21.
<p>Civil</p> 	<ul style="list-style-type: none"> Provide figure III-1.1 Runoff Treatment BMP Selection Flow Chart within the drainage report. [drainage report, pg 12] 	<ul style="list-style-type: none"> The runoff treatment BMP selection flow chart has been included in the drainage report.
<p>Civil</p> 	<ul style="list-style-type: none"> How come the LID report doesnt show a check mark for the "Used for Treatment" column for the bioswales? [drainage report, pg 94] 	<ul style="list-style-type: none"> The LID report has been updated to include a check mark for the used for treatment column for the bioswales.
	<ul style="list-style-type: none"> FYI for the phased approach, the project may apply for a clear fill and grade permit to grade the site flat and install the overflow from the theoretical parcel A. The school district will need to own this property, prior to applying for this permit application. Additionally, the overflow pipe must be sized appropriately for the theoretical build out conditions. Be sure to include the theoretical hard surfaces to ensure the pipe is not undersized. See city design standard 204 for storm pipe conveyance system sizing. [site plan, pg 1] 	<ul style="list-style-type: none"> Noted. The pipe will be sized to convey potential overflow above the 100-year event.
<p>Civil</p>	<ul style="list-style-type: none"> Show the square footage of the parcel to be acquired. [site plan, pg 10] 	<ul style="list-style-type: none"> The square footage of the new parcel has been shown on the plans
<p>Civil</p> 	<ul style="list-style-type: none"> Show the existing easement for this storm line [site plan, pg 9] 	<ul style="list-style-type: none"> Our survey does not show records of an easement over the storm line from the cul-de-sac to the project parcel through the adjoining private property. Therefore, the easement plan was not updated.
<p>Engineering Traffic Review</p>		
<p>Civil</p>	<ul style="list-style-type: none"> Per previous comment, fix drive isle alignment at this location. This design creates unnecessary 	<ul style="list-style-type: none"> Per discussions the parking lot entrance drive isle has been updated to better align with the parking lot drive isle through a

	<p>obstruction/hazard within primary access point. AASHTO Passenger Car shown for reference. [CUP Site Plan C3-30]</p>	<p>taper. Minimum landscape island widths were maintained.</p>
Civil	<ul style="list-style-type: none"> Per previous comment, remove all trees / shrubs located at the SE corner of parcel to improve sight distance for Costco drive isle. Confirmed with Planning Dept that vegetation can be removed. Place note on site plan & landscaping sheets requiring removal. [CUP Site Plan C3-30] 	<ul style="list-style-type: none"> Per discussions with City the School District is open to discussions of the long term maintenance of this portion of the property, but request that this process be separate from the CUP as it is not part of the proposed project and the maintenance agreement/easements would be between the School District and the private road owner, Costco.
Civil	<ul style="list-style-type: none"> Re-align fence away from Costco Drive Isle (green) [CUP Site Plan C3-30] 	<ul style="list-style-type: none"> Per discussions with City the School District is open to discussions of the long term maintenance of this portion of the property, but request that this process be separate from the CUP as it is not part of the proposed project and the maintenance agreement/easements would be between the School District and the private road owner, Costco.
Civil	<ul style="list-style-type: none"> AutoTurn needs to show parking layout/design in this area [CUP Site Plan C1-50] 	<ul style="list-style-type: none"> Per discussions with City this area will not be able to be striped, but buses will park along the north and south edge of the area leaving a center lane of over 30-feet in width. The original CUP submittal to the City shows what was planned for channelization in this area prior to being removed to avoid parking lot landscaping.
Civil	<ul style="list-style-type: none"> Coordinate with David Drake (Fire) if AutoTurn should include southern parking area [CUP Site Plan C1-50] 	<ul style="list-style-type: none"> No comments have been received from Fire for turning movements in this area of the parking lot. Parking lot is designed to code required dimensions.
Civil	<ul style="list-style-type: none"> Show inbound + outbound AutoTurn [CUP Site Plan C1-50] 	<ul style="list-style-type: none"> Inbound and outbound AutoTurn has been shown.
Civil	<ul style="list-style-type: none"> Show parking layout here [CUP Site Plan C3-30] 	<ul style="list-style-type: none"> Per discussions with City this area will not be able to be striped, but buses will park along the north and south edge of the area leaving a center lane of over 30-feet in width. The original CUP submittal to the City shows what was planned for channelization in this area prior to being removed to avoid parking lot landscaping.
Civil	<ul style="list-style-type: none"> Remove tree to improve sight distance at skewed intersection [CUP Site Plan C3-30] 	<ul style="list-style-type: none"> Tree has been removed at intersection.
	<ul style="list-style-type: none"> Access easement at this property corner. This easement would allow for possible future re-alignment of the Costco Drive Isle (substandard geometry). Access easement would not allow proposed parking lot to access 14th St SW (or Costco property). This would allow for "possible" realignment of substandard private access. These possible improvements would not be the responsibility of the district. [CUP Site Plan C2-101] 	<ul style="list-style-type: none"> Per discussions with City the School District is open to discussions of the long term maintenance of this portion of the property, but request that this process be separate from the CUP as it is not part of the proposed project and the maintenance agreement/easements would be between the School District and the private road owner, Costco.

Traffic	<ul style="list-style-type: none"> • Trip generation assumptions are approved. [CUP Traffic Scoping] 	<ul style="list-style-type: none"> • Noted, See TIA
Traffic	<ul style="list-style-type: none"> • 40% @ south leg of 17th/39th is too high for employee/bus trips. 20% is more likely. Please update trip distribution/assignment accordingly. [CUP Traffic Scoping] 	<ul style="list-style-type: none"> • Noted, See TIA
Traffic	<ul style="list-style-type: none"> • Line of sight distance not relevant. These two sites are 11 minutes apart (without congestion). [CUP Traffic Memo] 	<ul style="list-style-type: none"> • Noted, See TIA
Traffic	<ul style="list-style-type: none"> • The additional vehicle trips at the South Hill campus will have localized impacts (completely isolated from the DOC site). 	<ul style="list-style-type: none"> • Noted, See TIA
Traffic	<ul style="list-style-type: none"> • The existing DOC site will retain it's vested vehicle trips and will be able to use for credit against future development on this parcel. [CUP Traffic Memo] 	<ul style="list-style-type: none"> • Noted, See TIA
Traffic	<ul style="list-style-type: none"> • Traffic analysis <ul style="list-style-type: none"> - City can provide signal timing for signals within study area. - Need to measure existing queue lengths at study intersections - Delay analysis shall account for unserved demand where applicable. Please reference the 2020 ITE Creasey article. - use 3% annual growth rate (3 year horizon). - The operational analysis at 17th St SW & 39th Ave should evaluate existing NB/SB channelization. Analysis needs to evaluate SBL & NBL turn pockets. - report 95th percentile queuing & approach delay. 	<ul style="list-style-type: none"> • Noted, See TIA