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July 21, 2022

Attn: Madeline Sutherland, AICP
City of Camas
Community Development Department
616 NE 4th Avenue
Camas, WA 98607

RE: Hood Street Subdivision Wetland Mitigation Plan Questions from Ken Vartanian

Dear Ms. Sutherland:

I am writing in response to email correspondence sent to you on July 19, 2022, by Ken Vartanian regarding his comment related to underground springs on Prune Hill and their potential impacts to the Columbia Summit Estates Community (CSE).

In his email he states: *Leaky aquifers fed by underground springs are prevalent on Prune Hill as evidenced by the 12-month constant flow of water from curbside drains. One example close to the Hood Street Subdivision is located at 1918 Columbia Summit Drive where water continuously flows from its southwest curb drain (see video recorded on July 17, 2022). The owner of the property, Jian Wen, stated that the City of Camas tested the effluent ~ 6 years ago and verified its source as an underground spring. It is therefore logical to deduce that underground springs on Prune Hill may also feed the Wetlands in the Hood Street Subdivision. Our concern is when Wetlands are graded, excavated or filled-in, these underground springs may be diverted or blocked causing erosion or reemergence of past water management issues on our properties. Bordering CSE homeowners have made considerable expenditures to resolve water management issues on our properties and do not want to bear that expense again. Therefore, CSE bordering property owners request that the Applicant and/or the City procure Erosion and Water Management Control Bonds and Insurance prior to the start of construction to protect existing homeowners for a period of two years after completion of the Phase 2 Hood Street development.*

Mr Vartanian is correct in his assertion of the presence of springs in the Prune Hill area and likely on the Hood Street Subdivision site. In the Geotechnical Site Investigation by Columbia West Engineering (CWE) dated January 4, 2021, they state:

- *Groundwater seeps and springs were observed within test pit explorations TP-3 through TP-8 at depths ranging from 2 to 8 feet bgs.*
- *Groundwater levels are often subject to seasonal variance and may rise during extended periods of increased precipitation or flooding. Perched groundwater may*

also be present in localized areas. Seeps and springs may become evident during site grading, primarily along slopes or in areas cut below existing grade. Structures, roads, and drainage design should be planned accordingly.

To address potential springs, CWE provides the following recommendations:

- *Perimeter drains may limit increased hydrostatic pressure beneath footings and assist in reducing potential perched moisture areas.*
- *Subdrains should also be considered if portions of the site are cut below surrounding grades. Shallow groundwater, springs, or seeps should be conveyed via drainage channel or perforated pipe into an approved discharge.*

Olson Engineering Inc. has worked closely with CWE on numerous projects on Prune Hill and understands the issues related to shallow groundwater, springs and seeps within this area. The final engineering for the site will include subsoil drainage where the site is cut below existing surface in accordance with the geotechnical recommendations. In addition, CWE will be the geotechnical engineer of record and will be onsite throughout construction to ensure that any potential area of seepage is addressed.

It should also be noted that the lowest and wettest portions of Wetland A, are being left undisturbed which will provide a buffer between the areas of disturbance and the neighboring properties.

If you have any questions regarding my response, please feel free to reach out to me.

Best Regards,

Peter Tuck P.E.