## Sisul engineering

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September 19, 2017

City of Oregon City 625 Center Street Oregon City, OR 97045

**ATTN: Planning Commission and Planning Staff** 

RE: Abernethy Place – CP 17-0002, DP 17-0003 and NR 17-0004

Dear Planning Commission Chair Denise McGriff and Planning Commission:

A question was raised at the September 14<sup>th</sup> Planning Commission hearing, regarding the above applications, with respect to potential to infiltrate runoff into the soils on the subject site. We wish to address that question fully.

GeoDesign Inc, consulting geotechnical engineers, in their <u>draft</u> geotechnical study, dated May 9, 2017 report noted that infiltration testing was performed at two boreholes in which they drilled during the analysis of the subsurface conditions. (While the study is currently labeled "draft", in case elements of the report need to be revised for structural reasons, the infiltration results are measured results and will not change in the a "final" report.) Both infiltration measurements were made approximately 5 feet below ground surface, the approximate depth of potential WQ facilities. Measured infiltration rates for both tests were termed as "negligible" by GeoDesign.

Three bores were performed in the general area of the future lower parking area, the only location that deeper infiltration facilities, such as drywells could be reasonably located due to the drywells needing to be at, or below the lowest areas of the site, to allow for water quality treatment and to pick up runoff. All three bores were drilled down to approximately 11 to 12 feet below ground surface. Reviewing the bores logs of these three bores it appears that some form of fill exists down to at least 10 feet below ground surface as GeoDesign's logs indicate organics and wood chucks in their bore logs down to that depth. Below that depth the bores noted a sandy silt to a silt with sand. Silts do not generally drain well.

In addition, bore tests performed encountered ground water in the range of 25 to 30 feet below ground surface, and it was noted that the depth to ground water will fluctuate during the seasons and the site lies with in the 100 year flood plain. The Oregon Dept. of Environmental Quality,

the agency that regulates Underground Injection Control (UIC) devices, which drywells or most any subsurface infiltration facility is, generally wants at least 10 feet separation between the seasonal high groundwater table and the bottom of the UIC devices. Knowing any possible infiltration device would have to have a bottom elevation of 10 feet or more below grade surface, it is likely this separation could not be met. The likelihood that the water table rises in the wet season is bolstered by testimony from Mr. Nicita, who noted that historical information indicates that before development occurred, this general area was noted as a swampy or wetland area, an indication of high ground water.

Sincerely,

Thomas J. Sisul, P.E.

CSTERED PROFESS ENGINEER 12,820

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EXPIRES: 6/30/18