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# SOIL-MAT ENGINEERS & CONSULTANTS LTD.

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**PROJECT No.: SM 177692-G**

November 28, 2018

THINKGIRAFFE ENVIRONMENTAL DESIGN  
16 Sulphur Springs Road  
Ancaster, Ontario  
L9G 1L8

Attention: Marina Fensham, ARIDO, NCIDQ  
Owner

**SUPPLEMENTAL HYDROGEOLOGICAL CONSIDERATIONS  
PROPOSED EIGHT STOREY RESIDENTIAL BUILDING  
4063 UPPER MIDDLE ROAD  
BURLINGTON, ONTARIO**

Dear Ms. Fensham,

As requested, SOIL-MAT ENGINEERS has prepared this Supplemental Hydrogeological Considerations letter. This letter report should be read in conjunction with our initial geotechnical investigation report, SM 135055-G dated May 16, 2013, and slope stability assessment report dated SM 177692-G, dated September 27, 2017.

Based on the Preliminary Grading and Erosion Control Plan drawings prepared by S. Llewellyn & Associates, dated January 3, 2017, the proposed building will have a basement floor elevation of 135.60 metres, approximately 2 to 3.5 metres below the existing ground surface. The adjacent creek to the north was noted to have a water level at approximately 135.0 metres.

Given the anticipated depths of construction and estimate water level noted above, as well as the proximity of the proposed structure from the existing creek and the low permeability of the clayey silt overburden soils and Queenston shale bedrock encountered at the borehole locations, the static groundwater table is not anticipated to have a notable effect on the proposed excavations. Minor infiltration of groundwater through permeable seams, as well as from surface runoff should be anticipated, however it is expected that such a low rate of groundwater infiltration will be adequately controlled using conventional construction dewatering techniques such as pumping from sumps in the base of the excavation. The total infiltration would be expected to be considerably less than 50,000 litres/day, such that a permit to take water [PTTW] would not be required.



With respect to construction of foundations and perimeter drainage, the recommendations provided in our geotechnical report would be considered valid and should be adhered to. The proposed construction would not be considered to have an effect on the existing groundwater level or flow. During construction, care should be taken to ensure drainage to the creek to the north is unaffected.

We trust that these supplemental hydrogeological comments are sufficient for your present requirements. Should you require any additional information or clarification as to the contents of this document, please do not hesitate to contact the undersigned.

Yours very truly,  
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

A handwritten signature in blue ink, appearing to be "K. Richardson".

Kyle Richardson, P.Eng.  
Project Engineer



Distribution: thinkGiraffe Environmental Design [1, plus pdf]