

**re: Geotechnical Responses to City Comments**  
**Proposed High-Rise Building**  
**1040 Somerset Street West - Ottawa**

**to:** Claridge Homes - **Mr. Stephen Poon** - stephen.poon@claridgehomes.com

**to:** Claridge Homes - **Mr. Vincent Denomme** - vincent.denomme@claridgehomes.com

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Paterson Group Inc. (Paterson) prepared the current memo to provide our response to the geotechnical-related comments from the City of Ottawa regarding the proposed development at the aforementioned site.

## **John Wu - Comment 2**

**Comment:** *What impact will short-term dewatering have on the proposed shoring system have on the existing bridge abutment and retaining wall structure.*

**Response:** Short-term dewatering of the underlying soils over a 12 month period for construction will not cause excessive settlement of the shallow footings supporting the retaining wall structure of the bridge overpass. Paterson has reviewed the soil conditions immediately below the existing retaining wall and the overall soil overburden profile as part of our geotechnical investigation.

Based on our observations, the soil below the retaining wall structure consists of a compact to dense, silty sand with gravel and cobbles, which was noted to be dry followed by a stiff to very stiff, silty clay deposit with low moisture levels. The abovenoted layers are underlain by a glacial till, consisting of a silty sand with clay, gravel, cobbles and boulders. The groundwater level was encountered within the glacial till layer, which is considered to be resistant to settlement due to short-term dewatering based on our observations and testing results.

It is understood that a temporary shoring system will be installed adjacent to the bridge abutment and retaining wall structure, which will allow dewatering of the supported soils. However, it is expected that the extent of dewatering will be limited due to the soil consistency. Also, the glacial till layer is not expected to undergo any significant settlement (ie.- less than 5 mm) due to the short-term dewatering. Therefore, the shallow footing supported retaining wall structure will not undergo excessive settlement (ie.- less than 5 mm) due to the short-term dewatering associated with the proposed excavation program for the subject site.

We trust that this information satisfies your immediate requirements.

**Paterson Group Inc.**



David J. Gilbert, P.Eng.



**Paterson Group Inc.**

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