

memorandum

re:	Geotechnical Response to City Comments
	Proposed Mixed-Use Development
	2 Robinson Avenue - Ottawa, Ontario
to:	Place Dorée - Mr. Mike Marcella – mike@placedoree.com
cc:	Prince Developments – Mr. Kiren Waugh – <u>kwaugh@princedev.com</u>
date:	July 28, 2022
file:	PG4811-MEMO.03

Paterson Group Inc. (Paterson) prepared the current memo to provide our responses to the geotechnical-related City of Ottawa comments received from by the client via email. This memo should be read in conjunction with the current Geotechnical Investigation Report (Paterson Group Report PG4811-1 Revision 3 dated July 28, 2022), and Paterson Group Memorandum PG4811-MEMO.02 dated March 23, 2022.

Geotechnical Investigation Comments

Comment 5: Please provide global stability review, as per the latest Memo.

Response: It should be noted that Paterson has not completed a detailed retaining wall design to date for the subject site and the following information is not representative of the final retaining wall design. The global stability review was prepared based on an anticipated retaining wall design for the proposed site grading as shown on the following drawing prepared by NovaTech:

□ Grading Plan – 2 Robinson Avenue – Project No. 119171 – Drawing No. 119171-GR – Revision 2 dated March 30, 2021.

Reference should be made to Figure 1 – Typical Cross Section and Figure 2 – Global Stability Analysis for Retaining Wall, attached to the current memorandum.

The global stability analysis was modelled in SLIDE, a computer program which permits a two-dimensional slope stability analysis calculating several methods including the Bishop's method, which is a widely accepted slope analysis method. The program calculates a factor of safety, which represents the ratio of the forces resisting failure to forces favouring failure. Theoretically, a factor of safety of 1.0 represents a condition where the slope is stable. However, due t intrinsic limitations of the calculation methods and the variability of the subsurface soil and groundwater conditions, a factor of safety greater than 1.0 is generally required for the failure risk to be considered acceptable.

A minimum factor of safety of 1.5 is satisfactory for static conditions for the global stability of the subject retaining wall.





Based on the results of the analysis, the factor of safety for the proposed condition exceeds 1.5. It should be noted that as a conservative measure, the groundwater level for the global stability of the retaining wall assumed full saturation of the retained soil. The soil parameters utilized in our global stability review are outlined on Figure 2 – Global Stability Analysis for Retaining Wall.

We trust that this information satisfies your immediate requirements.

Best Regards,

Nicole Patey, B.Eng.



David J. Gilbert, P.Eng.

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