



**re: Geotechnical Investigation – Response to Municipality of
Mississippi Mills Comments
Proposed Residential Development
1825 Ramsay Concession 11A- Mississippi Mills, Ontario**

to: Regional Group - **Ms. Stefanie Kaminski** - skaminski@regionalgroup.ca
cc: NOVATECH - **Mr. Drew Blair** - D.Blair@novatech-eng.com
date: July 25, 2024
file: PG5860-MEMO.03

Further to your request and authorization, Paterson Group (Paterson) prepared this memorandum to provide responses to the geotechnical-related comments from the Municipality of Mississippi Mills. This memorandum should be read in conjunction with the Geotechnical Investigation Report (Paterson Group Report PG5860-1 Revision 3 dated July 25, 2024) which has been prepared for the proposed development at the aforementioned site.

Geotechnical Investigation Comments

Comment 1: *Section 4.3 – Groundwater elevation has not been sufficiently found. The use of open test holes and soil analysis is not substantial enough given the site conditions. Ground water monitoring should be completed on multiple locations on the site to determine the seasonally high ground water table. This should also be considered as a part of compliance with the Municipality’s CLI design guidelines section 2.9 (Sanitary sewers and Maintenance Holes Installed Below Seasonally High Groundwater Table).*

Response:

Please refer to the Paterson Group Report -1 Revision 3 dated July 25, 2024.

Comment 2: *Precautions should be taken to prevent the flooding of basements which are located below the ground water table such as back up generators and dual sump pumps. Home buyers should be notified if their home is below the SHGWT and a notification will be included in the Subdivision Agreement and the agreement of purchase and sale to this effect.*

Response:

It is understood that sump pumps are anticipated as part of the development due to the proposed shallow storm sewer invert level. Based on the groundwater monitoring program completed between April 2024 to July 2024, the water levels were recorded to be at 0 to 1 m bgs. However, It is important to note that groundwater level readings could be influenced by perched water condition. The long-term groundwater table can also be





estimated based on the observed colour and consistency of the recovered soil samples. Based on these observations, it is estimated that the long-term groundwater level can be expected between 1.5 to 2.0 m below ground surface. Further, based on our review of the conceptual grading plan, the underside of the footing is anticipated to be located above the pre-development long-term groundwater level and post-development groundwater level, and therefore, a dual sump pump system with a battery-powered secondary pump should be sufficient, which is expected to be active only during the spring high or heavy rain scenarios.

Comment 3: *Section 6.1 - Sump pumps will be required to drain to the exterior of homes (overland flow), not to a municipal storm water pipe. Please amend accordingly.*

Response:

It is understood that the municipality has allowed the dwellings to connect to the municipal storm sewers.

We trust that this information satisfies your immediate requirements.

Best Regards,

Paterson Group Inc.

Balaji Nirmala, M.Eng.



David J. Gilbert, P.Eng.

