PATERSON GROUP

memorandum

re: **Geotechnical Response to City Comments**
Proposed Residential Building
2458 Cleroux Crescent - Ottawa

to: HP Urban Inc. – **Peter Hume** – Peter.Hume@hpurban.ca

date: June 12, 2026

file: PG5973-MEMO.04

Paterson Group Inc. (Paterson) prepared the current memorandum to provide responses to the geotechnical-related City of Ottawa comments provided via email for the proposed residential building to be located at the aforementioned subject site. The following memorandum should be read in conjunction with the current Geotechnical Investigation Report (Paterson Group Report PG5973-1 Revision 1, dated April 1, 2022).

Geotechnical Investigation

Comment 32: *Retaining wall in rear yard designed by structural engineer in accordance to Geotechnical Report, Paterson PG5973 Revision 1 (April 2022) and PG5973-MEMO.01. Contractor to implement prescribed measures and report to engineer for concurrence.*

Response: Based on discussions with the project team, the proposed retaining wall will be substituted by grading accomplished through the earthworks program. The currently proposed grading (referring to *Services & Grading Plan*, Plan No: 18880 dated April 2026 and prepared by Arch-Nova Design Inc.) provides top of wall grades ranging between 77.52 and 76.77 m which tie into the existing ground surface at the property line located near the bottom of the wall.

The proposed grading may be accomplished through the placement of site-generated workable brown silty clay fill placed in maximum 225 mm thick loose lifts and compacted in lifts using a suitably-sized vibratory sheepsfoot roller to a minimum of 95% of the materials SPMDD. The site-generated material may not consist of grey clay or other lesser workable soils. It may consist of imported material, however, should not consist of crushed stone fill due to grade raise restrictions. The previously recommended lightweight fill recommendation will remain applicable for this portion of the subject site and for during the backfilling stage.

It is expected grading along the rear of the structure using this methodology will reach up to a steepness of up to 1.5H:1V (near the balcony extension reaching an elevation of 79.50 m) and will otherwise be in the range of 2H:1V. It is recommended that the final grades established across the fill layer be established by the placement of a minimum 150 mm thick layer of topsoil blended with either hardy grass or hydroseeding. Establishing root growth from the topsoil layer is important to ensure it remains permanently able to withstand precipitation and snowmelt given the localized steeper inclinations over the long-term.

Other vegetation such as trees and shrubs should be selected and advised upon by the Landscape Architect and should be in accordance with the recommendations provided in the aforementioned Geotechnical Report (i.e., high-water demand trees should not be placed thoruhgout this area due to the presence of the deep clay deposit).

Grading along the property lines abutting to neighboring parcels along Cleroux Crescent should match the existing grades and be sloped downwards thereafter to match the existing property line at the base of the slope and at the rear of the property. Based on these recommendations, grading will mostly match existing conditions such that the results from the slope stability provided in the geotechnical report remain valid from a global stability perspective. Grading matching the design conditions provided herein are considered stable and acceptable from a global stability and geotechnical perspective and in accordance with the assessment undertaken in the aforementioned Geotechnical Report.

This effort should not be undertaken during the winter due to the likelihood of frost having impacted the fill and the subsequent thawing of the frozen material in the spring and summer that would result in unintended settlement of the ground. Based on this, the construction team should consider this when planning this portion of the construction program. It is recommended that Paterson field personnel review the placement of fill along the rear of the property at the time of construction once the earthworks contractor will place this material accordingly.

We trust that this information satisfies your immediate requirements.

Best Regards,

Paterson Group Inc.

Drew Petahtegoose, P.Eng.