May 18, 2023

Jim Keay Ford Lincoln Sales Ltd.
100 Argyle Avenue, Suite 200
Ottawa, ON K2P 1B6

E-mail: briananderson@jimkeayford.com

Attention: Brian Anderson

Re: Geotechnical Drawing Design Review
1400 and 1410 Youville Drive, Ottawa, Ontario
Pinchin File: 310936.001

1.0 INTRODUCTION

Pinchin Ltd. (Pinchin) is pleased to submit this Geotechnical Drawing Design Review Letter to Jim Keay Ford Lincoln Sales Ltd. (Client) for the proposed commercial development to be located at 1400 and 1410 Youville Drive, Ottawa, Ontario (Site).

Pinchin previously completed a Geotechnical Investigation for a proposed commercial development to be located at the Site. The results of this investigation were provided in the following report:

- *"REVISED Geotechnical Investigation, Proposed Commercial Development, 1400 and 1410 Youville Drive, Ottawa, Ontario",* dated August 26, 2022, Pinchin File: 310936.001 (Pinchin 2022 Report).

The Pinchin 2022 Report provided conventional shallow footing design recommendations for footings established on the natural subgrade soil located approximately 1.8 metres below existing ground surface (mbgs). It is noted that the bearing resistances provided within the Pinchin 2022 Report were limited to maximum 1.2 m wide strip footings and 2.0 x 2.0 m spread footings; however, the structural engineer has requested that isolated spread footings be increased in size up to a maximum of 3.1 x 3.1 m. In addition, the proposed development includes minor grade raises ranging from approximately 0.0 to 0.8 m within the vicinity of the proposed building footprint. As such, the Geotechnical Design Review was requested to determine if the proposed footing sizes and grade raises can be supported by the underlying natural subgrade soil.

The following drawings were reviewed by Pinchin:

- Drawing entitled *"Grading, Drainage, and Erosion & Sediment Control Plan*", prepared by McIntosh Perry, project number CCO-23-0480, drawing number C101, dated February 2, 2023;

- Drawing entitled *"Schedules"*, prepared by Cleland Jardine Engineering Ltd., project number 22-0196, drawing number S004, dated March 17, 2023; and
- Drawing entitled *"Foundation Plan"*, prepared by Cleland Jardine Engineering Ltd., project number 22-0196, drawing number S100, dated March 17, 2023.

The following table summarizes the various footing sizes for the proposed development, as well as the corresponding soil bearing resistance required for each footing size. It is noted that the required soil bearing resistance for footing sizes F5 and F6 are lower than the values indicated on the above referenced drawings and were provided to Pinchin by the Client via email correspondence on April 14, 2023. It is noted that the proposed strip footing sizes indicated on the above referenced drawings are all less than the maximum width indicated in the Pinchin 2022 Report; as such, the design review was limited to the spread footing sizes only.

Footing	Dimensions (LxWxH)	Minimum Soil Bearing Resistance Required
F1	1.2 x 1.2 x 0.4 m	SLS = 100 kPa ULS = 120 kPa
F2	1.6 x 1.6 x 0.4 m	SLS = 100 kPa ULS = 120 kPa
F3	2.0 x 2.0 x 0.4 m	SLS = 100 kPa ULS = 120 kPa
F4	2.3 x 2.3 x 0.5 m	SLS = 100 kPa ULS = 120 kPa
F5	2.6 x 2.6 x 0.5 m	SLS = 70 kPa ULS = 101.5 kPa
F6	3.1 x 3.1 x 0.6 m	SLS = 53 kPa ULS = 78 kPa

Based on Pinchin's review of the proposed footing sizes and associated soil bearing resistances required, the proposed footing sizes for the development are considered to be acceptable for the subsurface soil conditions encountered in the Pinchin 2022 Report. In addition, Pinchin has reviewed the proposed grade raises for the development and considers them to be acceptable.

We trust that the information provided in this letter report is sufficient for the Client's requirements. Should you have any questions or concerns regarding the contents of this letter, please contact the undersigned.

Yours truly,

Pinchin Ltd.

Prepared by:

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Template: Master Letter Template, October 1, 2019