

**RECEIVED**

DEC 14 2018

**IDES**

December 14, 2018

**Reid's Heritage Homes**  
6783 Wellington Road 34, RR#22  
Cambridge, Ontario  
N3C 2V4

Attention: Mr. Jim Dodd

**Subject: Letter re: Response to Reviewers' Comments, City of Guelph and Cole Engineering Group Ltd.**

34 Lowes Road West and 1533 to 1557 Gordon Street, Guelph, Ontario

Our ref: 160-P-0011504-0-01-305-HD-L-0001-00

Dear Sir,

Englobe Corp. (Englobe) has prepared this letter to address comments provided by the City of Guelph in its letter of 11 September 2018 entitled "SUBJECT: Preliminary Comments, 1553 – 1557 Gordon Street and 34 Lowes Road West" (the City's Letter) and by Cole Engineering Group Ltd. In its letter of 19 October 2018 entitled "Re: Draft Peer Review of Scoped Hydrogeology Study for Proposed Zoning By-law Amendment, 34 Lowes Road West and 1533 to 1557 Gordon Street, Guelph, Ontario" (the Cole Draft Peer Review).

Both letters provide comments on Englobe's "Scoped Hydrogeology Study, 34 Lowes Road West and 1533 to 1557 Gordon Street, Guelph, Ontario" of November 2017 (Englobe Reference 160-P-0011540-0-02-300-HD-R-0001-00). Long-term monitoring of the water levels at the Site commenced in June 2107 and is presently authorized to continue to June 2019. The most recent monitoring event occurred in August 2018 and the next monitoring event is scheduled for mid-November 2018. Englobe's annual summary letter for monitoring water levels up to and including June 2018 (Englobe Reference P-0011540—3-301-HD-L-0001-00) is provided under separate cover.

Englobe will be revising its report to address certain of the reviewers' comments and to incorporate (i) the results of Guelph Permeameter testing, (ii) a revised water balance (prepared by Stantec Consulting Ltd. ["Stantec"]), and (iii) any relevant changes in groundwater elevation known at the time of writing. As a result, those of the reviewers' comments that must be addressed by the content of the pending revised Scoped Hydrogeological Study are not discussed in detail below.

*The City's Letter*

Comments 8 through 10 pertain to Englobe's Scoped Hydrogeology Study. Englobe's responses are as follow.

Comment 8 (recommendation for three years of monitoring): at present, long-term monitoring for a period of two years is in progress (please note: this is also applicable to Comment 7, Geotechnical Report).

Comment 9 – (removal of unreliable data from Figure 101 [datalogger water levels] of the Scoped Hydrogeology Report): there are two intervals for which measurements recorded by the datalogger were found to be unreliable. The first incident occurred on 18 and 19 July 2017. The reading at 05:00 on 18 July 2017 documented an abrupt apparent decrease in water level of 1.03 m, followed by quasi-static readings until 17:00 on 19 July 2017 when the apparent water level suddenly increased by 1.37 m. These data were not used in the report. The cause of this short-term erratic behaviour is unknown.

The second incident occurred during the same monitoring period. The apparent water level rose following a precipitation event on 11 August 2017, which is to be expected. However, the water level did not decrease, as occurred in the other monitoring wells, until 06:00 on 18 August 2017 when an abrupt decrease of 0.48 m occurred. The readings stayed at this lower level (which is valid, based on the manual measurement taken on 18 August 2017) until 13:00 on 18 August 2017 when it abruptly reverted to the higher (invalid) reading. Upon review of the data downloaded on 18 August 2017, the Levellogger (serial number 2012294) was replaced with a new Levellogger (serial number 2028940). The latter instrument has been in use since that time and, as of the November 26, 2018 download, was correlating well with manual measurements.

Comment 10: (additional comments under separate cover): this is understood to be a reference to the Cole Draft Peer Review.

*The Cole Draft Peer Review:*

Comments 1 and 7 (requests for inclusion of figures illustrating the draft site plan and groundwater mounding to be included in the revised report): the requested figures are provided in Appendices 8 and 4, respectively, of the revised report.

Comment 2 (illustration of fill at depth on Figure 5): We apologize for an oversight that is corrected in the revised report. The legend entry for bedrock (rectangles on a red background) was not included on the 2017 version of Figure 5. As a result, bedrock appeared to be fill (diamond pattern on a red background, included in the 2017 Legend).

December 14, 2018

Comment 3 (absence of data for first year of monitoring): The relevant letter report has been issued under separate cover.

Comment 4 (request for additional infiltration tests): the fieldwork was completed on 20 November 2018 and the results of the testing were used by Stantec in their revised water balance and in Englobe's revised report.

Comment 5 (groundwater mounding analysis to use flow from catchment area and not solely precipitation over the footprint of the infiltration facility): the mounding analysis was based on recharge of over 2 m per m<sup>2</sup> per year, which is approximately an order of magnitude higher than precipitation-derived infiltration under undisturbed conditions if the catchment areas were not used. For clarity, Englobe's Table 8-1 and Stantec's revised water balance are included in Appendix 8 of Englobe's revised report and both document the catchment area for each Infiltration Facility.

Comment 6 (use of more recent high groundwater elevations in mounding assessment, if applicable): this is addressed in the June 2017 to June 2018 monitoring letter. The revised report includes all available data at the time of preparation (i.e., up to and including November 26, 2018). At present, the water levels from July 2017 remain the highest known water levels.

Comments 8 through 12 (water balance and/or wetland-related issues): these comments are addressed in Englobe's revised report and Stantec's updated water balance, as applicable.

We trust this information is suitable for your present requirements. If you have any questions or require further information, please contact the undersigned.

Yours very truly,

Englobe Corp.



Stephen Hodgson, P.Geol  
Senior Hydrogeologist

