



Region of Waterloo

Planning, Development & Legislative Services

Development Planning

Date: May 16, 2022

To: Michael Campos, Planner, City of Cambridge

From: Insert Your Name Here, Region of Waterloo

Subject: Official Plan and Zoning By-law Amendment Application follow up 55 Kerr Street

File No: OR03/19

Following a meeting held March 18, 2022 to discuss OR03/19 (55 Kerr Street, Cambridge), the following summarizes the outstanding issues required to be addressed prior to the Region being able to comment further on the development and make a recommendation on the Official Plan Amendment:

1. Hydrogeology and Source Water Protection Concerns:

The property is located within WPSA 2 and 5, WHPA C for the Middleton Wellfield and WHPA E for the Willard wellfield. The subject property is adjacent to two known contaminated sites, and is within an Issue Contributing Area for the Middleton Street Well field (TCE, Chloride and Sodium) with a Vulnerability score of eight (8).

Hydrogeology and Source Water Protection staff were circulated a copy of the Record for the Official Plan Amendment, which included reports never commented on from a

Document Number: 4072078

Version: 1

Regional Hydrogeological and Sourcewater protection perspective. The reports received include:

- Geotechnical Investigation, 55 Kerr Street, Cambridge Ontario; prepared by Terraprobe, dated October 3, 2019
- Hydrogeological Investigation, Proposed Residential Condominium Building, 55 Kerr Street, Cambridge Ontario; prepared by Terraprobe, dated October 1, 2019
- Notice of Source Protection Plan Compliance (Section 59 Notice), dated August 22, 2019
- Servicing Letter; prepared by Meritech, dated May 3, 2019
- Stormwater Management Report, 55 Kerr Street, City of Cambridge; prepared by Meritech, dated May 2019

Based on the above noted reports and documents received Regional staff have the following comments:

Hydrogeological Study:

The hydrogeological study indicated that the site will require a *Permit to Take Water* for long-term (i.e. permanent) dewatering. Please be advised that the Region does not support permanent active or passive dewatering controls for below-grade infrastructure, including foundations, slabs, parking garages, footings, piles, elevator shafts, etc. Below-grade infrastructure requiring dry conditions should be waterproofed; therefore, the Hydrogeology Study must be updated. In addition, the Hydrogeological Investigation summarizes short-term construction dewatering. Regional staff noted in the meeting of March 18, 2022 that two levels of underground parking are proposed and Regional staff require the updated concept plan that reflects this amendment to the proposal. Should only two levels of underground parking be proposed, construction-dewatering estimates should be revised with this updated design concept. In addition, a sensitivity analysis should be completed for the various parameter inputs.

Please be advised that the Region's Sewer Use By-law has been updated since the completion of the Hydrogeological study and now includes a number of parameters not previously analyzed (e.g. VOCs) therefore, updated groundwater quality sampling, analyses and discussion of the applicable by-law standards must be completed.

Finally, it is noted that the bedrock formation directly underlying overburden at the site is a highly productive fractured dolostone bedrock aquifer, with high transmissivity values capable of supporting several municipal water supply wells in the City of Cambridge. The Hydrogeological Investigation must be updated to include a Vulnerability Assessment to determine if the subsurface excavation will increase the risk of the municipal aquifer to surface contamination.

Source Water Protection Potential Contamination Study:

The Source Water Protection Potential Contamination Study was not submitted. This must be completed and submitted to the satisfaction of the Region. The study should include a Phase One ESA (completed to O. Reg. 153/04 standards), as well as a

preliminary investigation of any Areas of Potential Environmental Concern (APECs) identified in the Phase One report, and an assessment of the potential impacts to municipal groundwater aquifers related to any on-site soil and/or groundwater contamination.

Once the above has been addressed to the satisfaction of the Region, the following prohibitions shall be written into the Zoning By-law:

- 1) A prohibition on geothermal wells, as defined in Chapter 8 of the Region Official Plan, which includes vertical open-loop and vertical closed-loop geothermal energy systems. Regional staff recommend the following wording for the prohibition: *Geothermal Wells are prohibited on site. A geothermal well is defined as a vertical well, borehole or pipe installation used for geothermal systems, ground-source heat pump systems, geo-exchange systems or earth energy systems for heating or cooling; including open-loop and closed-loop vertical borehole systems. A geothermal well does not include a horizontal system where construction or excavation occurs to depths less than five meters unless the protective geologic layers overlaying a vulnerable aquifer have been removed through construction or excavation.*
- 2) A prohibition on engineered infiltration infrastructure, due to the potential to alter groundwater contaminant plumes; and,
- 3) A prohibition on permanent passive and/or active dewatering infrastructure.

2. Regional Cultural Heritage Concerns:

Through the Region's Comments dated December 23, 2019 and the follow up meeting on March 18, 2022, the subject lands have the potential for the recovery of archaeological resources due to its proximity to a watercourse, its proximity to historically mapped structures and its location within a historic core area. To address this concern, an Archaeological Assessment prepared by a Licensed Archaeologist shall be prepared and submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries and once reviewed and accepted, the Archaeological Assessment and Ministry's Acknowledgement Letter shall be provided to the Regional Municipality of Waterloo. Regional staff can accept a Holding Zone to obtain an Archaeological Assessment and Ministry Acknowledgement Letter for the entirety of the subject lands. The recommended wording of the Holding Zone is:

That a holding provision shall apply to the entirety of the subject lands until an Archaeological Assessment has been filed with the Ministry of Tourism, Culture and Sport and the Archaeological Assessment and Ministry Acknowledgement Letter have been submitted to the satisfaction of the Regional Municipality of Waterloo.

3. Stationary Noise Concerns:

Stationary noise concerns relating to the development proposal must be addressed through the submission of a detailed stationary noise study. The stationary noise study shall address the potential impacts of the on-site noise sources on on-site noise receptors. Furthermore, the stationary noise study must address how noise sources from the non-residential component (e.g. Commercial Uses, underground and structured parking) will impact the residential components of the development. It is recommended that the detailed stationary noise study be received through the use of a holding provision. The recommended wording for the Holding Provision is:

That a holding provision shall apply to the entirety of the subject lands until a stationary noise study has been received to the satisfaction of the Regional Municipality of Waterloo that complies with the MECP NPC-300 Guidelines.

4. Record of Site Condition

Due to the known threats on site, a Record of Site Condition is required in accordance with the Region of Waterloo's *Implementation Guideline for the Review of Development Applications On or Adjacent to Known and Potentially Contaminated Sites*. The Region shall accept a **Holding Zone until such time that** a new Record of Site Condition for the entirety of the lands has been received. The RSC shall be completed in accordance with O.Reg. 153/04, as amended. The recommended wording for the Holding Zone is:

That a holding provision shall apply to the entirety of the subject lands until a Record of Site Condition (RSC) in accordance with O. Reg. 153/04, as amended, has been filed on the Ministry of Environment, Conservation and Parks (MECP) Environmental Site Registry on or after July 1, 2011 and the Ministry's Acknowledgement letter is received to the satisfaction of the Regional Municipality of Waterloo.

For the purposes of completing a Record of Site Condition for the subject property, all groundwater within the Region of Waterloo is considered "Potable" for the purposes of selecting the correct Site Condition Standards per Ontario Regulation 153/04 (as amended). As per the Region's Potable Groundwater Criteria, the Region only accepts the use of clean-up standards and guidelines that consider effects on local potable groundwater supplies. Risk Assessment based standards are supported but should incorporate site-specific hydrogeological data and must assess the contaminant pathways to current and future municipal drinking water aquifers and other potential potable groundwater users (i.e. "potable pathways").

https://www.regionofwaterloo.ca/en/living-here/resources/Documents/water/ROW-WAS_potable-groundwater-criteria-use.pdf

Follow Up Required by Applicant:

The Region shall require the following prior to being able to comment further on the application:

Document Number: 4072078

Version: 1

- Copy of the current development proposal (Architectural Plans)
- Updated hydrogeology study as described above
- Preparation of a sensitivity analysis as described above
- Prepare a Vulnerability Assessment that can be included in the updated Hydrogeology Report
- Updated groundwater quality sampling, analyses and discussion as described above
- Source Water Protection Potential Contamination Study as described above

I trust the above is of assistance.

Kind Regards,

A handwritten signature in cursive script that reads "Melissa Mohr".

Melissa Mohr, MCIP, RPP
Principal Planner