

BOS Engineering & Environmental Services Inc.

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November 27, 2018

Att: Mr. Paul V. Hinde, BES Planner

Ironstone Building Company
320 Dundas Street, Unit 1
London, ON
N6B 3R8

Dear Sir: **RE: Servicing Assessment for Proposed Land Division – 15 Elmhurst Street, (Kilworth) Municipality of Middlesex Centre**

It is proposed to divide the 1.6acre (0.65ha) parcel known as 15 Elmhurst Street into three lots each with approximately 21.3m frontage. On November 2nd, staff of BOS Engineering attended the site with a contracted backhoe and logged four test pits across the site.

The enclosed sketch (drawing 1) indicates the approximate locations of the test pits and presents the soil test pit logs and soil grain size analyses. Test pit elevations were related to an assumed site benchmark set as the top of the concrete well cover at the front of the property (assumed as 100.00m).

Three of the four test pits indicated the presence of sandy soils with an estimated percolation time of 2 to 8 min/cm. The top of the underlying suitable sand is relatively level, ranging from elevation 98.30 to 98.64m. It is inferred that the sand layer was not reached at test pit 3 due to the much higher ground elevation at this location.

Septic Systems

Based on the native soils, the septic beds may be constructed as small filter beds. Assumptions were made for typical homes in this area and related daily sewage loading as listed on drawing 1. Based on 4-bedroom homes with living area of 290m², the daily sewage design load is 2900 L/day. This can be facilitated by 4.00m x 10.00m filter beds that reach the native sand on each lot. In Middlesex Centre, at the time of new lot creation, it is required to indicate a contingency area of equal capacity. Drawing 1 indicates both main filter beds and contingency areas on each lot together with concrete septic tanks with a capacity of 6800 L, as required.

Water Supply

Water supply in this existing subdivision is provided by individual onsite wells. Existing wells on adjacent lots on each side of the subject property are drilled and cased. Deep

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drilled wells in the front yards of the proposed lots will easily meet minimum setbacks required by the Ontario Building Code. There is an existing well on the subject property that may be suitable for the centre lot if it is deep and cased; however this was not verified. If not suitable, it should be decommissioned and appropriately replaced.

Conclusions

This assessment confirms that development of these lots with onsite servicing is possible.

The proposed lot frontage for each lot (21.2 to 21.4m) is short of the minimum 24.0m required by the current UR1-3 zoning. Hence a variance may be required.

An individual plot plan, topographical plan, lot grading plan and septic system design should be submitted at the building permit stage for each lot.

Sincerely,

BOS Engineering & Environmental Services Inc.



Art W. Bos P. Eng.
Attach/ Drawing