development engineering (London) Limited

CONSULTING CIVIL ENGINEERS

December 14, 2023 Project: DEL23-016

City of London, Development Services (6th Floor)
300 Dufferin Avenue
P.O. Box 5035
London, Ontario
N6A 4L9

Attn: Mr. Paul Di Losa, C. Tech

Re: Re-Zoning Application – Meadowbrook Business Park Campus
4023-4500 Meadowbrook Drive & 169-207 Exeter Road
Sanitary Capacity Study

Mr. Di Losa,

Development Engineering (London) Ltd. (DevEng) has been retained by Bluestone Properties Inc. to provide Site Civil Engineering services (Sanitary Capacity Study) for the proposed re-zoning of their existing Meadowbrook Business Park Campus located at 4023-4500 Meadowbrook Drive and 169-207 Exeter Road in London, Ontario. This study has been prepared to address an engineering comment from the City's Record of Pre-Application consultation letter dated November 7, 2023 for a proposed re-zoning of the property from holding Light industrial (h-17*LI1/LI2/LI3/LI4/LI7) to also include a special provision zoning (LI-4(_)) that includes a broader range of uses such as commercial and office space (while also retaining the existing zoning). That comment is provided below for reference:

> *Limited available surplus capacity in the downstream sewer, namely the 375mm diameter on Blakie Road. The subject lands are allocated commercial density as per City Drainage Area Plan T22-233-19 which is not to be exceeded for the ultimate buildout of the approximate 17ha (A5,A7,A8).*

BACKGROUND INFO AND EXISTING CONDITIONS

The approximately 19.4ha subject site (including approximately 2.4 ha west of Meadowbrook Avenue) is bound by Exeter Road to the north, existing industrial properties to the west, Blakie Road to the south and existing undeveloped agricultural fields to the east and currently hosts a commercial plaza and associated parking and landscape works. As indicated on Sanitary Drainage Area Plan drawing #T22-233-19 received from the City of London (attached to this letter for reference), the subject lands were allocated an equivalent residential population of 1944 people (catchment areas A2, A5, A7 and A8) and are tributary to four (4) Private Drain Connections (PDC's) which tie into an existing 375mm diameter Municipal sanitary sewer within the Blakie Road right-of-way. The Municipal gravity sewer system conveys sewage east along Blakie Road towards White Oak Road, south along White Oak Road to Dingman Drive and then west along Dingman Drive to the City's Dingman Sanitary Pumping Station (SPS). Ultimately, the lands are tributary to the Greenway Pollution Control Plant (PCP).

SANITARY DESIGN

It is confirmed from drawing #T22-233-19 the Blakie Road sewer constructed in 2023 allocated design capacity for surrounding developments based on an assumed 100 persons/ha equivalent residential population. This is the standard allotment for typical water-using Industrial-Commercial-Institutional (ICI) development within the City of London per Section 3.8.1 of the City's Design Specifications & Requirements Manual (DSRM, 2022). Given the date of the sewer construction, it is assumed the sewer was also designed assuming the DSRM per capita flow rate of 230 L/person/day, a Harmon Peaking factor and an infiltration flow allotment of 0.1 L/s/ha.

According to the City's Record of Pre-Application Consultation document and discussions with the developer, there is no specific development being proposed in conjunction with the Zoning by-law amendment. Rather, it is proposed a Special Provision be added to the LI4 zoning to allow the developer to "transition from industrial uses to commercial and office uses in the short-term and retain flexibility to permit residential uses in the long-term future.

It is notable the DSRM treats all ICI development short of "heavy water" industrial users in the same manner when it comes to sanitary capacity allotment. Given this, it is anticipated the existing Municipal sanitary sewer system on Blakie Road has been designed with sufficient capacity to allow for any development falling under the ICI designation including light industrial, commercial and office space. It is recommended a provision be added to the zoning that indicates if a tenant/developer with water demand requirements in excess of 25,000 L/ha/day gross area (approximately equivalent to 100 persons/ha equivalent residential population per DSRM 3.8.1b), the development must be supported by a supplemental Sanitary Capacity Analysis.

If in the future the lands were to be redeveloped as residential (as alluded to in the Record of Pre-Application Consultation document and the City's Official Plan assessment of the lands as "Neighborhoods"), it is anticipated the existing Municipal sanitary sewer system on Blakie Road has been designed with sufficient capacity to facilitate residential development as a mixture of Low (30 UPH x 3.0 PPU = 90 PPH per DSRM 3.8.1) and Medium (75 UPH x 2.4 PPU = 180 PPH per DSRM 3.8.1) density.

We trust this design brief provides sufficient justification to support the proposed sanitary servicing strategy and has adequately addressed the engineering requirements, as outlined in the Record of Pre-Application Consultation, in support of zoning amendment. Please do not hesitate to contact the undersigned if there are any questions or comments.

Development Engineering (London) Limited

Derek J. Hoevenaars, P.Eng.
Senior Project Engineer

cc: Bluestone Properties Inc. – Colin Bierbaum, Mardi Turgeon
Zelinka Priamo – Laura Jamieson

EXISTING SERVICES	DRAWING #, SOURCE	CONSTRUCTION DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
----	----	----	----	----	DESIGN BM	----	----	----	----
----	----	----	----	----	DRAWN BY PJM	----	----	----	----
----	----	----	----	----	CHECKED PDC	----	----	----	----
----	----	----	----	----	APPROVED PDC	----	----	----	----
----	----	----	----	----	DATE 2022/10/04	----	----	----	----
----	----	----	----	----		----	----	----	----
----	----	----	----	----		----	----	----	----
----	----	----	----	----		----	----	----	----
----	----	----	----	----		----	----	----	----
----	----	----	----	----		----	----	----	----

CONSULTANT OR SERVICE AREA

CONSTRUCTION &
INFRASTRUCTURE SERVICES

ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER
P.D. CHOMA
PROVINCE OF ONTARIO

London CANADA

CORPORATION OF THE
CITY OF LONDON

SCALE

HORIZONTAL–1:2000
2,5 0 5m

TITLE

BLAKIE ROAD LOCAL IMPROVEMENT – 2023
NEW CONSTRUCTION

BLAKIE RD
SANITARY DRAINAGE AREA PLAN

PROJECT No.
RFT–2022–233

SHEET No.
19 OF 25

PLAN FILE No.
T22-233-19