



April 20, 2023

Via: Email

Stephen Mattachini, P.Eng.
Engineering and Construction Services
Etobicoke Civic Centre
2 Civic Centre Court
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Toronto, ON M9C 5A3

Sean Wren, P.Eng.
(Acting) Manager, Development Engineering

Dear Mr. Mattachini:

**Re: Response to Comments
Zoning By-law Amendment and Official Plan Amendment
21 John Street
Application No: 22 218732 WET 05 OZ (1st Submission)
Project No.: 300054203.0000**

We have received your memorandum dated March 13, 2023, with comments concerning 21 John Street, in reference to the Zoning By-Law Amendment Application (ZBA). We are pleased to provide our responses addressing the following comments. For clarity, your comments are listed in the order they appear in the original letter and in italics, followed by Burnside's response to each comment. Please note, we have only responded to the comments related to the engineering and construction services portion of the memorandum.

A. Revisions and Additional Information Required for Plans and Studies.

1.3 Engineering and Construction Services

(a) Please note the proposed sidewalks are to be as per City Standard T-310.010-2.

Response: Acknowledged. A note has been added to reference the City Standard on Drawing G1 – Grading Plan.

(b) Please note the proposed driveway entrance to be as per City Standard T-350.01.

Response: Acknowledged. A note has been added to reference the City Standard on Drawing G1 – Grading Plan.

(c) Please label the existing driveway entrances to be removed and replaced with full height curb, and proposed boulevard restoration.

Response: Acknowledged. These have been labelled on Drawing G1 – Grading Plan.

(d) Please coordinate with the civil consultant to ensure there is sufficient space allocated within the site/building to allow for the required private civil servicing infrastructure (i.e. control manholes, water quality units, stormwater tanks, meters, backflow preventers, etc.). Please illustrate all above-ground civil infrastructure on the site plan and all civil infrastructure within the building on the parking level plan.

Response: Acknowledged. We have coordinated the civil servicing requirements between the Architectural Site Plan and Drawing S1 – Servicing Plan.

4. Functional Servicing Report, dated 04-Oct-22, by R.J. burnside & Associates Ltd.;

4.1 Introduction/Background

(a) Please indicate that the site is within the City's Basement Flooding Study Area 51 for which the EA is in progress.

Response: Acknowledged. This has been included in Section 2.1 of the FSR.

(b) Remove the references to this report as a “Stormwater Management Report”. This report is only being reviewed for functional servicing at this stage. Detailed review of the stormwater management will be completed at the Site Plan Approval stage.

Response: Acknowledged. This has been revised throughout the FSR.

(c) Please reference the following additional documents and ensure all sections of the report are consistent with these documents:

- *City of Toronto Design Criteria for Sewers and Watermains, January 2021*
- *City of Toronto Sewer Capacity Assessment Guidelines, July 2021*

Response: Acknowledged. This has been included in Section 1.2 of the FSR.

4.2 Water Supply

(a) Please indicate that valves will be provided on the water services at the property line and that meters and backflow preventers will be provided in accordance with the City's standards.

Response: Acknowledged. This has been included in Section 3.2 of the FSR.

(b) Please indicate that the building's fire department connection will be located within 45m of a fire hydrant in accordance with OBC.

Response: Acknowledged. This has been included in Section 3.2 of the FSR.

(c) Section 3.2 notes that an additional private hydrant will be provided on the southwest portion of the site. This is not shown on the Site Servicing Plan.

Response: Acknowledged. Hydrant locations have been revised in this submission. They have been noted in the FSR and are shown on Drawing S1 – Servicing Plan.

(d) The City typically accepts Ordinary construction type with a construction coefficient of one (C=1). The architect and consulting civil engineer are to provide letters indicating what Construction Type and Construction Coefficient (C) the building's design falls into. The letters are to indicate whether all vertical openings and exterior vertical communications will be properly protected in accordance with the National Building Code.

Response: Acknowledged. A letter has been provided by the Architect and has been included within Appendix B of the FSR.

(e) The sprinkler reduction for fire flow calculation does not appear to be done correctly.

Response: Acknowledged. The fire demand calculations have been revised accordingly.

(f) Update Section 3.3 based on the updates to the fire flow calculations.

Response: Acknowledged. Section 3.3 has been revised accordingly.

4.3 Stormwater

(a) Section 4.3 notes external drainage from the south and east of the site; however, Figure 6 only shows drainage from the south.

Response: Acknowledged. The external drainage areas have been revised and updated to the revision to the site limits in this submission. Figure 6 has been updated accordingly.

(b) The third paragraph notes that the west portion of the site drains to South Station Street. This should refer to the east portion of the site.

Response: Acknowledged. This has been revised in Section 4.3.1.

(c) The allowable release rate to South Station Street should be calculated based on the existing east side drainage area to South Station Street plus external drainage, both areas with a runoff coefficient of 0.5. Please update Section 4.4.

Response: Acknowledged. Both parcels will be controlled back to the pre-development flows with an RC=0.50. We can confirm that these flows are less than the existing storm flow to the Municipal system, with an existing RC based on site conditions. Please note the external area has been removed as it now makes up part of the Parcel B lands based on the new property divisions. Therefore, the site is meeting the requirement of controlling the 100-year to 2-year pre-development levels and also provides a decrease in storm flow to the Municipal system compared to the existing conditions.

(d) In Section 5.1, please indicate that a control manhole will be provided on the storm connection. The control manhole is to be located at the property line, entirely within the site. The orifice tube is to be located upstream of the control manhole.

Response: Acknowledged. This has been included in Section 5.1 of the FSR.

(e) Confirm whether all internal piping within the building is to provide adequate capacity for full capture and conveyance of all flows generated by storms up to and including the 100-year rainfall event. Otherwise, any flow above the capacity of the internal drains/piping must be accounted for as uncontrolled flow as part of the overall site release rate. This should be documented through appropriate calculations/table and/or notes on the site servicing and/or grading plans and coordinated with the mechanical consultant to ensure this is achieved at the site plan stage.

Response: Acknowledged. The internal mechanical piping within the building will need to be designed to convey the full 100-year storm event flows to the stormwater management tank. A note has been added to Section 5.1.1 of the FSR. Sizing for the proposed area drains being collected by Mechanical have been completed for the 100-year storm event and are included in Appendix C of the FSR with summary tables provided on both Drawings S1 – Servicing Plan and G1 – Grading Plan.

(f) Confirm whether any storm sewer infrastructure upgrades are required to support the development.

Response: Acknowledged. This has been included in Section 5.1 of the FSR.

4.4 Groundwater Management

(a) The report does not reference the latest version of the hydrogeological investigation. Please ensure the servicing report is coordinated with the most current hydrogeological report.

Response:

Response: Acknowledged. The report has been updated to reflect the latest hydrogeological investigation.

(b) A 'Servicing Report Groundwater Summary' form is required (attached). This should be included in an Appendix to the report and as a separate file.

Response: Acknowledged. This has been included in the Appendix D and as a separate file.

4.5 Sanitary Servicing

(a). Please indicate that a control manhole will be provided on the sanitary connection. The control manhole is to be located at the property line, entirely within the site. This is consistent with the Servicing Plan.

Response: Acknowledged. This has been included in Section 7.3 of the FSR.

(b) Section 7.3 and Figure 5 indicate that two new sanitary connections will be provided to the development. Since the development consists of a single tower, a single sanitary connection is required to the municipal system. Please revise the report and figures as required.

Response: Acknowledged. The sanitary service connections have been revised on all applicable plans and in the FSR.

(c) Provide a breakdown and include the property addresses with each sanitary flow calculation. There is one sanitary calculation for drainage to John St. and three sanitary calculations for South Station Street although there are two buildings with service connections to each street.

Response: Acknowledged. This has been revised and is included in Appendix E of the FSR.

(d) Section 8.1 notes that an un underground utility investigation is underway to confirm connection information, and that this information will be provided in a future submission.

Response: Acknowledged. The investigation is now complete, and the results have been included in Appendix A.

(e) In the wet weather sanitary sewer design sheets, confirm what the 3 L/s/ha infiltration rate value is based on. Per note 2 under Table 6 of the City's Design Criteria for Sewers and Watermains, the WWF I&I value for sanitary sewers is to be estimated based on the 25-year design storm where no WWF I&I for the May 12, 2000 storm event is available from BFPP studies. This estimate is to be based on flow monitoring (in accordance with the City of Toronto's Sewer Capacity Assessment Guidelines, July 2021), or supported by other equivalent review/investigation.

Response: Acknowledged. An infiltration rate of 3 L/s/ha was considered as a conservative estimate of the infiltration rate on site. Flow Monitoring data was requested from the City of Toronto, but the data available is not sufficient to estimate the I/I for the subject drainage area. A Flow Monitoring Plan will be developed and the completion of flow monitoring as per the City of Toronto's Sewer Capacity Assessment Guidelines will be undertaken. The intent is to provide this material for the next submission.

(f) The consultant must verify in the report that they have included in the analysis:

- i. The analysis correctly represents the sewer system, including any recent sewer construction/upgrades.*
- ii. Flow rates from all recent/proposed development, including new builds, sites where zoning has been completed and where applications are currently in progress.*
- iii. Best efforts have been made to include all flows from Private Water discharge agreements in the sewer shed.*
- iv. Flow monitoring and determination of the WWF I/I value have been completed in accordance with Appendix A of the City of Toronto Sewer Capacity Assessment Guidelines, July 2021.*

Response: Acknowledged. The above items have been included within Section 8.1 and 8.3 of the FSR.

(g) Please clearly indicate in the sanitary calculations, design sheets, drainage plans, etc. the address/location of each development along with the development statistics/flows accounted for in the analysis. Provide a summary table in the report showing all proposed developments including proposed populations, sanitary flows, and long-term discharge, based on the information obtained from the City's Application Information Centre.

Response: Acknowledged. This additional detail has been included in Section 8.3 of the FSR.

(h) It does not appear that the wet weather flow I/I flow was included for the site in the proposed condition Extreme Wet Weather scenario of the sanitary analysis.

Response: Acknowledged. The design sheets have been revised to include the wet weather flow for the site in the proposed condition.

(i) Per Criterion 3 for Sanitary Sewers in Table 6 in the City of Toronto Design Criteria for Sewers and Watermains (January 2021), where the HGL is less than 1.8 m below grade under WWF conditions, proposed development must ensure that the proposed HGL will be no higher than the existing HGL and the proposed peak flow rate will be no greater than existing peak flow rate to the connection at the trunk sewer.

Response: Acknowledged. Further details have been provided in Section 8.4 of the FSR.

(j) As the site ultimately discharges to a combined sewer, confirm whether the site complies with MECP policy F-5-5.

Response: Acknowledged. Section 9.0 of the FSR has been included to discuss the site compliance with F-5-5 and required offsite improvements.

(k) In Section 8 remove references to the downstream capacity analysis as being preliminary for the final report.

Response: Acknowledged. This has been revised in Section 8.0 of the FSR.

4.6 Conclusions

(a) Please clearly state if the individual existing municipal infrastructure systems (watermains, sanitary sewers and storm sewers) are sufficient to support the development and no infrastructure upgrades are required, or indicate required upgrades.

Response: Acknowledged. This has been included in Section 11 of the FSR.

(b) Please provide a summary table at the end of the report with the following:

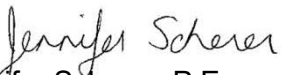
- *The calculated allowable release rate*
- *The actual release rate*
- *The required storage*
- *The provided storage*
- *The orifice size*
- *The oil grit separator size, including TSS% removal & Annual runoff treated (or indicate to be determined at SPA)*

Response: Acknowledged. This has been included in Section 11 of the FSR.

We trust the above responses satisfactorily address your comments. Should you require further information please don't hesitate to contact our office.

Yours truly,

R.J. Burnside & Associates Limited


Jennifer Scherer, P.Eng.
Engineer
JS:cv

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