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Project: 182055

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Re: Residential Development - 665 Old Sackville Road, Lower Sackville, NS

Mr. Smith,

Harbourside Transportation Consultants has completed a qualitative traffic impact assessment, as per Halifax Regional Municipality (HRM) requirements, to support the application for a proposed residential development located at 665 Old Sackville Road in Lower Sackville, Nova Scotia.

Study Area and Site Context

The proposed development site is located on the north side of Old Sackville Road, approximately 450 m southeast of the intersection of the Beaver Bank Connector and Old Sackville Road. The site context is illustrated in Figure 1. Access to the development will be provided via a driveway on Old Sackville Road.

Old Sackville Road is a minor collector roadway with a two-lane cross section and a posted speed limit of 50 km/hr. Sidewalk is provided on the south side of the roadway. Bus stops are located on Downsview Drive, approximately 350 metres west of the proposed driveway and the Metro Transit Sackville Terminal is located on Walker Avenue, approximately 600 metres from the proposed driveway. The Sackville Terminal includes a park-and-ride lot and services a total of 8 transit routes as of August 20, 2018. The routes include: 80-Sackville, 82-Millwood, 83-Springfield, 84-Glendale Express, 85-Downsview Express, 87-Glendale, 185-Metro Link Sackville and 400-Beaver Bank.

Description of Proposed Development

The proposed development will include three mid-rise residential buildings containing a total of 277 units. The development plan for the site is shown in Figure 2. The development plan includes a total of 445 vehicle parking spaces, including underground and surface parking and 263 bicycle parking spaces. The parking layout included on the development plan satisfies the parking requirements for the proposed development.

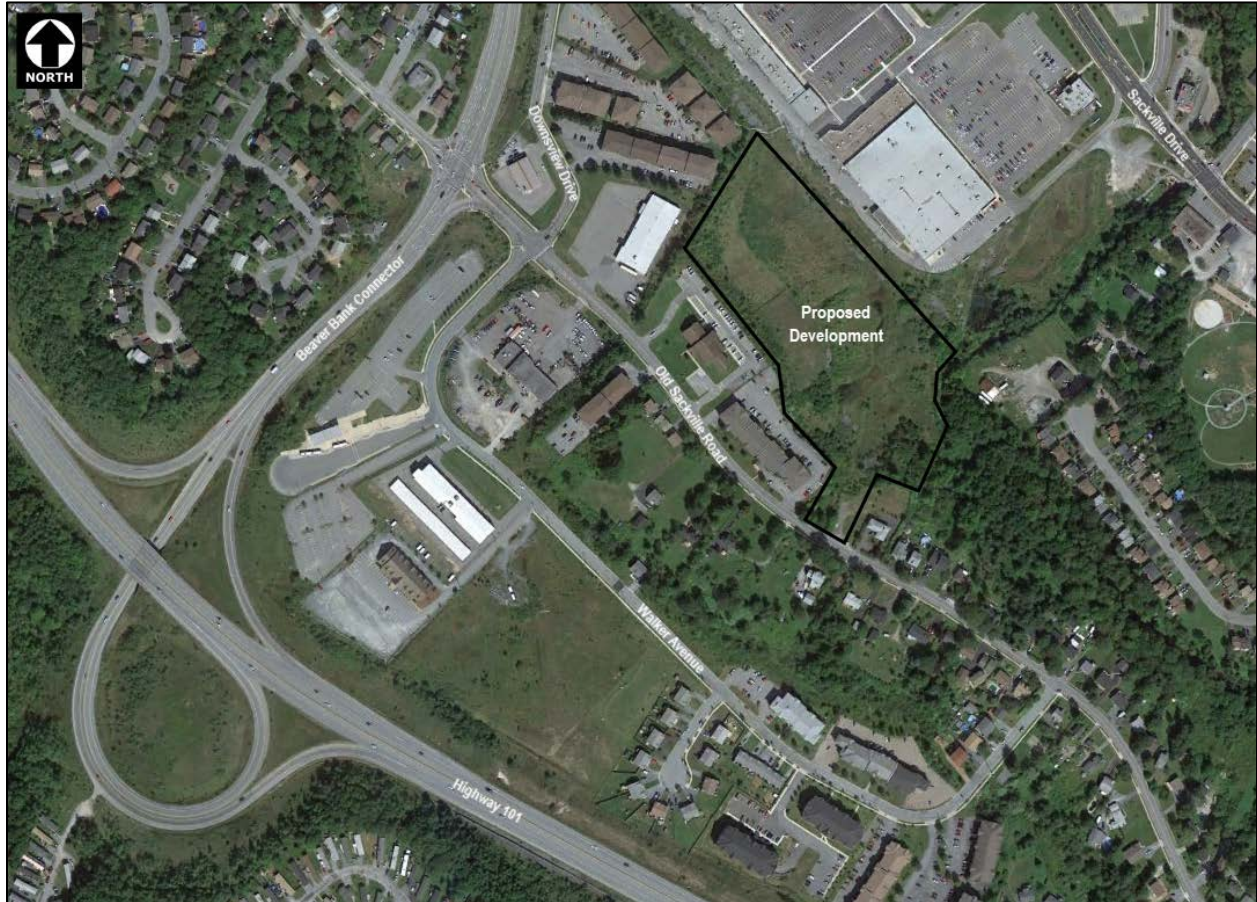


Figure 1: Site Context

As previously indicated, the development will be accessed through a driveway on Old Sackville Road. The sight distance at the access point was reviewed to ensure the required sight distance is available. For minor collector roadways, the HRM Municipal Design Guidelines (2013) specifies the following sight distance requirements:

- Minimum stopping sight distance = 85 metres
- Minimum turning sight distance = as defined by the TAC *Geometric Design Guide for Canadian Roads*

The TAC *Geometric Design Guide for Canadian Roads* specifies the following sight distance requirements for a design speed of 50 km/h:

- Minimum stopping sight distance = 65 metres
- Minimum turning sight distance – left-turn from stop = 105 metres
- Minimum turning sight distance – right-turn from stop = 95 metres

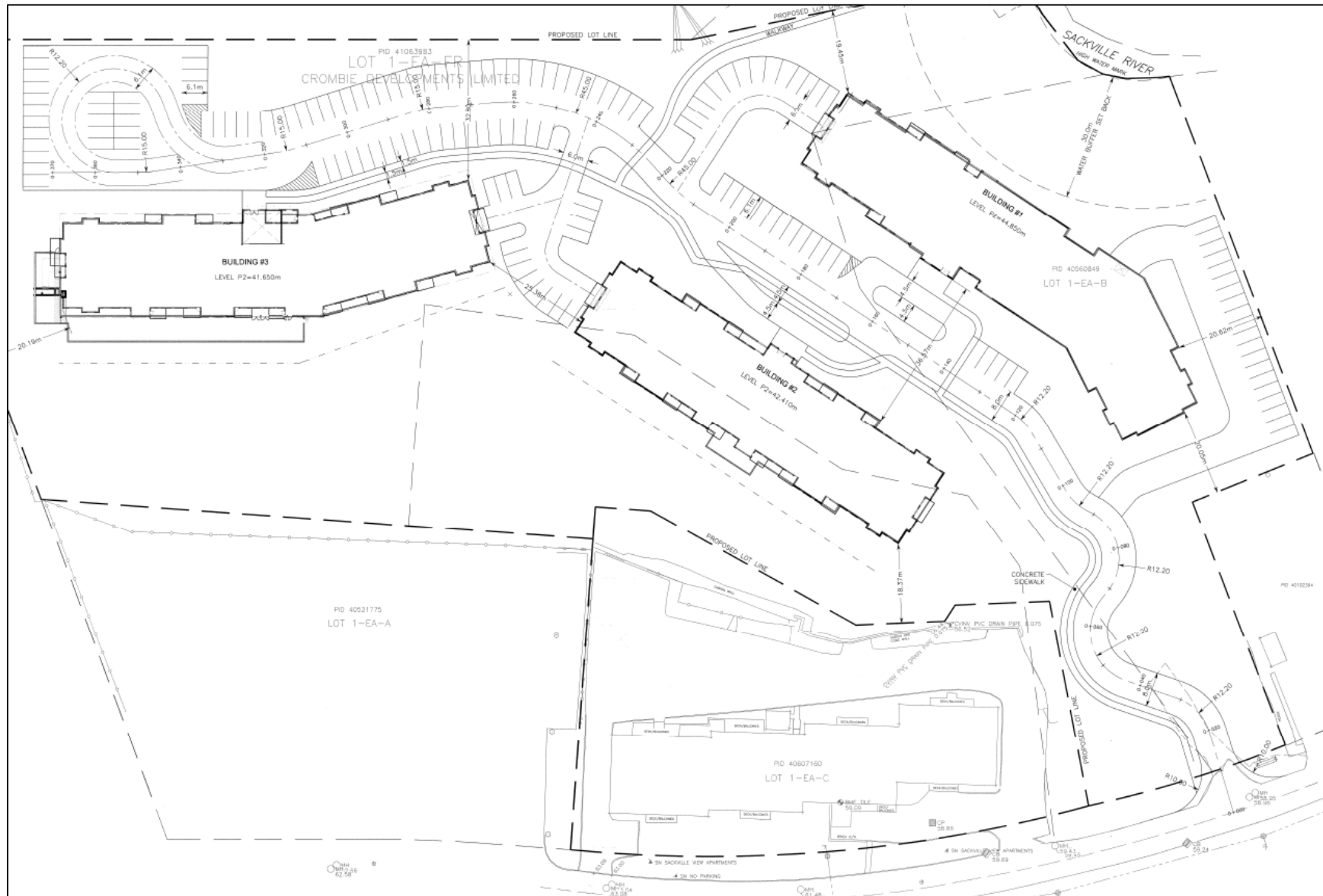


Figure 2: Development Plan

Approximate measurements for the stopping and turning sight distance requirements are illustrated in Figure 3. The stopping sight distance requirement of 85 metres along Old Sackville Road is met in both directions. Existing trees and vegetation on the west side of the driveway limits the turning sight distance available looking to the right from the driveway. The Canada Post mailboxes located east of the driveway may limit the turning sight distance available looking to the left of the driveway. In order to meet turning sight distance requirements at the proposed driveway location, the departure sight triangles will need to be cleared of obstructions.



Figure 3: Approximate stopping and turning sight distance at the proposed driveway location

Trip Generation

The vehicle trip generation estimates for the proposed development were quantified using trip generation rates obtained from the 10th edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). The weekday morning (AM) and afternoon (PM) peak hours trip generation estimates for the proposed development are summarized in Table 1. The proposed development is expected to generate 100 trips in the AM peak hour (26 trips in/74 trips out) and 122 trips in the PM peak hour (74 trips in/48 trips out).

Table 1: Trip Generation Estimates

Land Use	Number	Unit	ITE Code	AM Rate (Trips/DU)	AM Total Trips	AM Trips In	AM Trips Out	PM Rate (Trips/DU)	PM Total Trips	PM Trips In	PM Trips Out
Multifamily Housing (Mid-Rise)	277	DU	221	0.36	100	26	74	0.44	122	74	48
					100	26	74		122	74	48

Impact to Surrounding Streets

A qualitative assessment of peak hour demand on Old Sackville Drive was performed based on the assumption that the peak-direction of traffic on this segment of Old Sackville Drive is westbound during the AM peak hour (travelling towards the Beaver Bank Connector) and eastbound during the PM peak hour (travelling from the Beaver Bank Connector). Since no traffic counts were collected as part of this traffic impact assessment, the context of the study area and knowledge of travel patterns in the area were used to support this assumption.

Given the location of the proposed development, it is likely that the majority of site-generated traffic will travel to and from the development via the Beaver Bank Connector which provides connections to Highway 101, Sackville Drive and Beaver Bank Road. The trip generation estimates indicate that the proposed development will generate less than 75 additional vehicle trips in the peak-direction of traffic during the AM and PM peak hours. In addition, the close proximity of the development to the major Halifax Transit terminal in the Sackville area may encourage the use of transit and potentially reduce the number of vehicle trips generated by the development.

It is expected that the new vehicle trips associated with the proposed development can be accommodated along Old Sackville Road and the Beaver Bank Connector corridors as well as at the intersection of the Beaver Bank Connector and Old Sackville Road with only a marginal impact on traffic operations. It should be noted that this traffic impact assessment consists of a high-level qualitative assessment, therefore no analytical capacity calculations have been completed to support the assessment.

Conclusions and Recommendations

Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality (HRM) requirements, to support the development application for a proposed residential development located at 665 Old Sackville Road in Lower Sackville, Nova Scotia. The following conclusions were gathered from the traffic impact assessment:

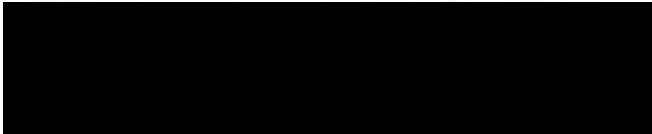
- The proposed development will include three mid-rise residential buildings containing a total of 277 units.
- The vehicle trip generation estimates for the proposed development were quantified using trip generation rates obtained from the ITE Trip Generation Manual (10th edition). The proposed development is expected to generate 100 trips in the AM peak hour (26 trips in/74 trips out) and 122 trips in the PM peak hour (74 trips in/48 trips out).
- The required stopping sight distance to the driveway is provided in both direction on Old Sackville Road. The departure sight triangles at the proposed driveway location will need to be cleared of obstructions in order to provide adequate turning sight distance.



It is expected that the new vehicle trips associated with the proposed residential development of 277 units can be accommodated along Old Sackville Road and the Beaver Bank Connector corridors as well as at the intersection of the Beaver Bank Connector and Old Sackville Road with only a marginal impact on traffic operations.

If you have any questions or additional discussion, please feel free to contact the undersigned.

Regards,



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