1102 Purcells Cove Road Traffic Impact Statement

March 2025

Prepared for

Servant Dunbrack McKenzie & MacDonald (SDMM) Ltd.

JR consulting

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1 Introduction

1.1 Background

Servant Dunbrack McKenzie & MacDonald (SDMM) Ltd and FBM Architecture, on behalf of the owner, are working on a proposal to develop a new residential apartment building on their property at 1102 Purcells Cove Road in Halifax, Nova Scotia. Exhibit 1.1 shows the site in red in the context of the surrounding area.

Exhibit 1.1 – Proposed Residential Apartment Building at 1102 Purcells Cove Road in Halifax

Source: Google Earth

The existing property is home to a Church and Community Centre and the new site plan will see the church relocated to the south of the property on Purcells Cove Road and a new 18-storey high-rise apartment building will be constructed at the rear of the property.

A total of 163 apartment suites will be created with a mixture of 1-bedroom, 2-bedroom and 3-bedroom units. This total includes 5 guest suites that will be included in the building.

Access to the property will be from a new driveway on Purcells Cove Road located at the southern portion of the property that will provide access to the underground parking and the main entrance to the building. An exit only driveway will also be provided to the north.

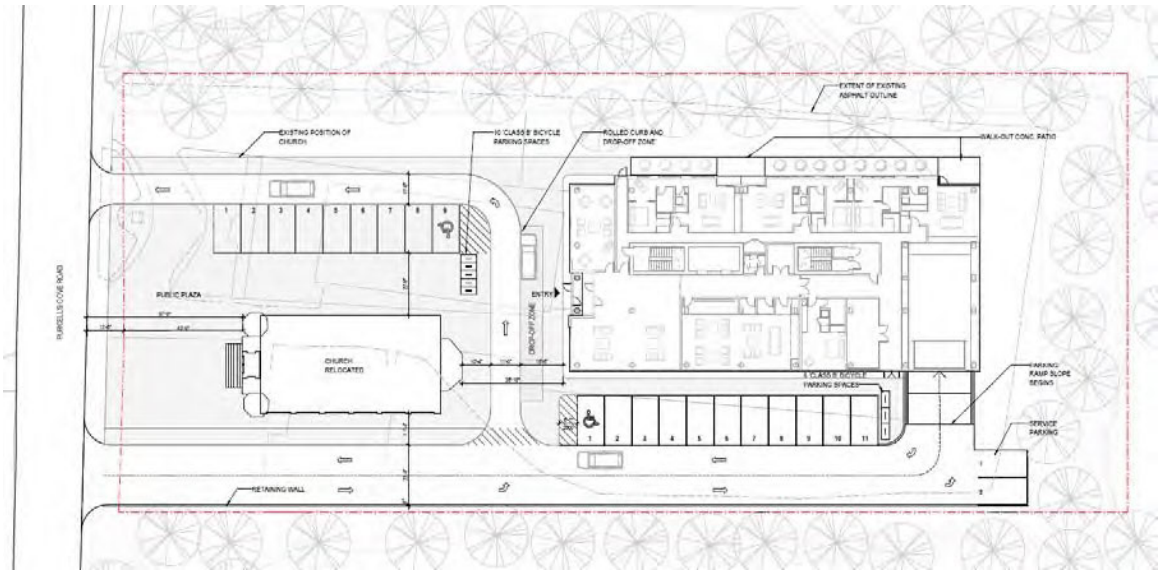
Two levels of underground parking will be included with a total of 122 parking spaces and 76 Class A bicycle spaces are included on Level P1. Surface parking will also be provided for 20 vehicles and 16 Class B bicycle spaces as shown on the exterior site plan.

Refer to Exhibit 1.2 for a photo of the site and Exhibit 1.3 for a 3D rendering of the proposed apartment building and Exhibit 1.4 for a proposed Site Plan as provided by FBM Architecture.

Exhibit 1.2 – 1102 Purcells Cove Road in Halifax, Nova Scotia

Exhibit 1.3 – Proposed High-Rise Apartment Building at 1102 Purcells Cove Road

Exhibit 1.4 – Proposed Development Site Plan at 1290 Oxford Street



JRL consulting was retained to prepare a Traffic Impact Statement (TIS) to assess the potential traffic impacts of the proposed residential development in Halifax, Nova Scotia.

The purpose of a Traffic Impact Statement is to provide a high level overview of a proposed development including estimates of site-generated traffic along with an initial review of existing traffic counts in the general area of the proposed development. This information will form part of the initial application to HRM which will be reviewed by staff and council. We are pleased to submit this report which summarizes our findings and provides the information required by HRM for review.

2 Existing Traffic Conditions

2.1 Description

The principal routes affected by this development are Purcells Cove and Herring Cove Road. Exhibit 2.1 summarizes HRM's Characteristics of Street Classes from HRM's Municipal Service Systems Design Guidelines.

Exhibit 2.1 - HRM Characteristics of Street Classes

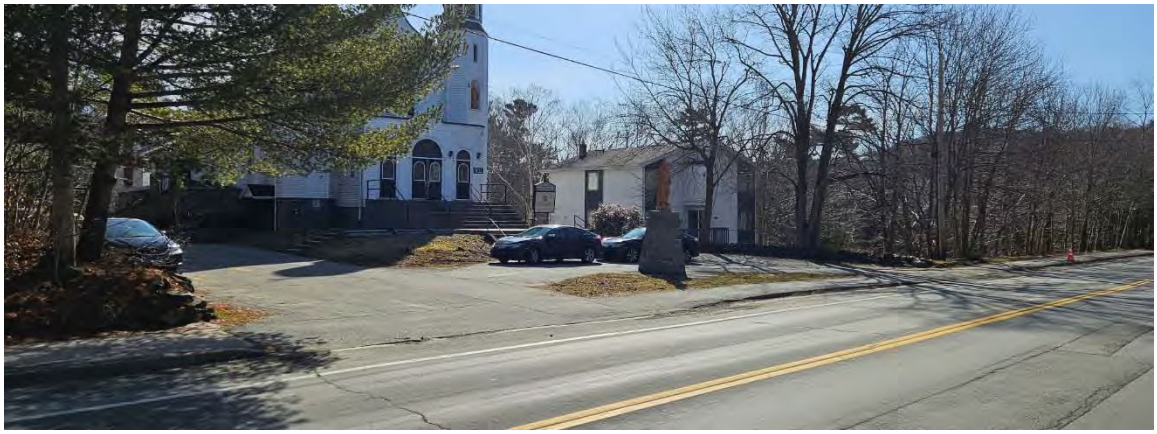
Characteristic	Arterial Street	Major Collector	Minor Collector	Local Industrial	Local Street
1. Traffic Service Function	First Consideration	Traffic movement primary consideration, land access secondary consideration, some parking	Traffic movement of equal importance with land access, parking permitted	Traffic movement secondary consideration with land access primary consideration, parking permitted	Traffic movement secondary consideration with land access primary consideration, parking permitted
2. Land Access Function	Limited Access with no parking				
3. Range of design traffic average daily volume	More than 20,000	12,000 to 20,000 or more	Up to 12,000	Less than 3,000	Less than 3,000
4. Characteristics of traffic flow	Uninterrupted flow except at signals; w/ pedestrian overpass	Uninterrupted flow except at signals and crosswalks	Interrupted flow	Interrupted flow	Interrupted flow
5. Average running speed in off-peak conditions	50-70 km/hr	40-60 km/hr	30-50 km/hr	15-30 km/hr	15-30 km/hr
6. Vehicle types	All types	All types but trucks may be limited	All types with truck limitation	All types	Passenger and service vehicles, transit buses; large vehicles restricted
7. Connects to	Expressways, arterials, major collectors, minor collectors	Expressways, arterials, major collectors, minor collectors, some locals	Arterials, major collectors, minor collectors, locals	Some major collectors, minor collectors, locals	Some major collectors, minor collectors, locals

Herring Cove Road is a major collector road that runs in a general north-south from the Armdale Roundabout to Sambro and is also known as Route 349. It has one lane in each direction near the proposed development and has a posted speed of 50 km/hr. There is a pedestrian crossing with actuated overhead lights on Herring Cove Road at Purcells Cove Road. There is an asphalt sidewalk on the eastern side of Herring Cove south of its intersection with Purcells Cove Road and concrete sidewalks on both sides to the north to the Armdale Roundabout.

Purcells Cove Road is a major collector road that runs in a general north-south from the Armdale Rotary to Herring Cover and is also known as Route 253. It has one lane in each direction near the proposed development and has a posted speed of 50 km/hr. There is a pedestrian crossing with actuated overhead lights just north of the site at Anchor Drive. There is an asphalt sidewalk on the eastern side of Purcells Cove Road near the proposed development. Bicycle lanes are in place on each side of Purcells Cove Road in this area.

Refer to Exhibit 2.2 for photos of the Study Area around the proposed development.

Exhibit 2.2 – Study Area Photos



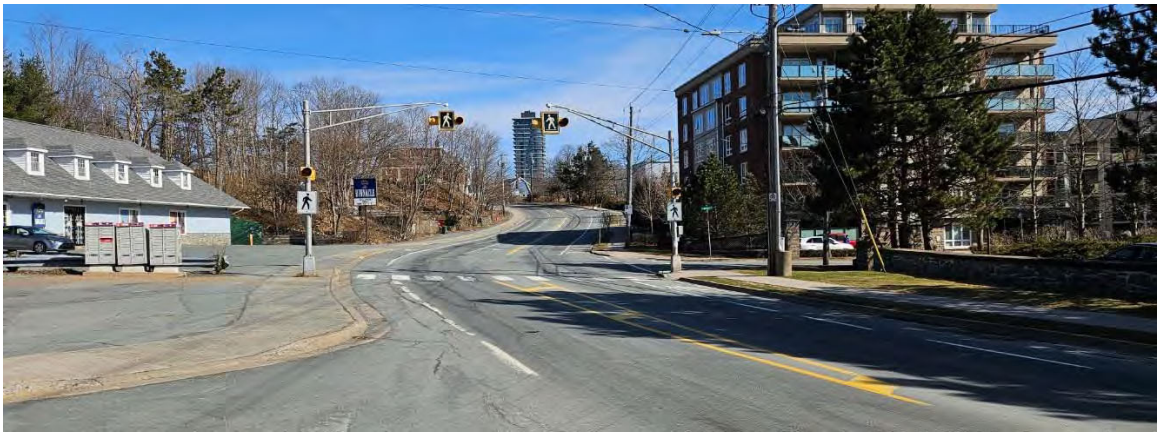
1102 Purcells Cove Road

1102 Purcells Cove Road looking east

Purcells Cove Road looking south with proposed development left

Purcells Cove Road looking south at proposed new driveway

Purcells Cove Road looking north at proposed new driveway



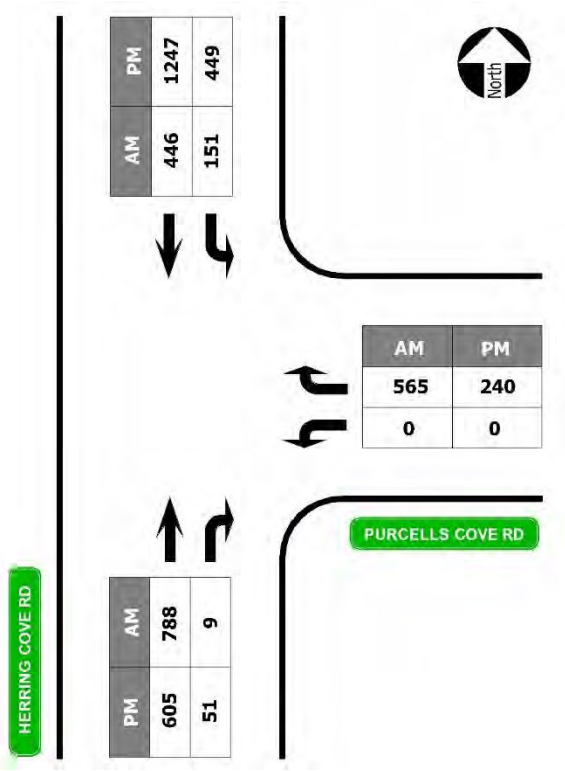
Existing Marked Crosswalk just north of the 1102 Purcells Cove Road at Anchor Drive

2.2 Existing Traffic Volumes

We completed a site review on March 30, 2025. The proposed development is located just south of the Herring Cove Road/Purcells Cove Road intersection that provides connections to and from the rest of the Halifax/Dartmouth/Bedford areas.

HRM completed peak hour turning movement counts on Tuesday September 17, 2019 at the Herring Cove Road/Purcells Cove Road intersection. The AM peak hour is from 7:00 AM to 8:00 AM and the PM peak hour is from 5:00 PM to 6:00 PM. We added a 2% annual background growth rate to these volumes to estimate traffic in 2025 as summarized in Exhibit 2.3.

Exhibit 2.3 – Herring Cove Road/Purcells Cove Road Estimated Existing Traffic 2025



Based on these counts we estimate that traffic on Purcells Cove Road in front of the proposed development in the AM peak hour is 565 vehicles northbound towards Halifax and 160 vehicles southbound. In the PM peak hour we estimate 240 vehicles northbound and 50 vehicles southbound away from the Halifax peninsula.

These estimates do not capture traffic entering or exiting the Regatta Point area so they are likely higher than actual traffic in front of the proposed development.

2.3 Trip Distribution

HRM's counts at the Herring Cove Road/Purcells Cove Road provide an indication of trip distribution in the area and we expect that traffic generated by the proposed residential development will follow the same patterns. The majority of vehicles on Purcells Cove Road in the AM peak hour are heading north towards Halifax (78%) and the majority of vehicles in the PM peak hour are traveling southbound (68%) away from the Halifax peninsula.

2.4 Transit and Pedestrians

The area around the proposed development is well serviced by Halifax Transit on Route 25 Governors Brook that provides regular service 7 days a week with connections to the rest of the transit network HRM. Refer to Exhibit 2.4.

An asphalt sidewalk is located on the eastern side of Purcells Cove Road in front of the proposed development and a marked crosswalk with overhead beacons is located just north of the property at Anchor Drive which allows pedestrians to cross Purcells Cove Road safely. Concrete sidewalks are in place on both sides of Purcells Cove Road north of Anchor Drive.

Exhibit 2.4 – Halifax Transit Route Map surrounding the proposed development

2.5 Stopping Sight Distance

As per the Transportation of Canada Geometric Design Guide for Canadian Roads, adequate stopping sight distance *"is essential for safe operation that the vehicle operator be able to see far enough ahead to stop if necessary. Conditions that would force a vehicle operator to stop are for example, an object on the roadway, a culvert washout or other fault in the roadway. Adequate stopping site distance is required throughout the length of the roadway. Minimum stopping site distance is the sum of two distances namely:*

- *Brake reaction distance*

  The distance travelled during the brake reaction time, that is the time that elapses from the instant an object, for which the driver decides to stop, comes into view to the instant the driver takes remedial action (contacts brake pedal).

- *Braking distance*

  The distance travelled from the time that braking begins to the time the vehicle comes to a stop."

The proposed driveways will be located close to the existing driveways at 1102 Purcells Cove Road. The posted speed limit is 50 km/hr which requires a stopping sight distance of 65 m. Visibility to the north and south on Purcells Cove Road exceeds this minimum stopping sight distance.

3 Site Generated Traffic

3.1 Trip Generation

The proposed residential development will be a new 18-storey high-rise apartment building that will contain 163 apartment suites with a mixture of 1-Bedroom, 2-Bedroom and 3-Bedford units.

We completed trip generation estimates using equations provided in Institute for Transportation Engineer's Trip Generation Manual 11th Edition with the following Land Use Code.

The existing church will be relocated and will be maintained on site but traffic generated by a church is generally outside the peak hours of the surrounding transportation network so we have not included trip generation estimates for that land use.

- ITE Land Use 222 Multifamily Housing (High-Rise)

*"High-rise multifamily housing includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space. Access to individual units is through and outside building entrance, a lobby, elevators and a set of hallways. "*The unit of measurement for average vehicle trip ends is dwelling units.

Exhibit 3.1 – Estimated Site Generated Traffic Volumes

LAND USE	QUANTITY	AM PEAK			PM PEAK		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
High-Rise Apartments ITE Land Use 222	163	44	26%	74%	52	62%	38%
			11	33		32	20
TOTAL		44	11	33	52	32	20

We estimate that the proposed development will generate additional net new traffic volumes of **44** vehicles in the AM peak hour and **52** vehicles in the PM peak hour.

4 Conclusions and Recommendations

- This Traffic Impact Statement has provided a high level overview of the proposed relocation of an existing church and the development of an 18-storey high-rise apartment building at 1102 Purcells Cove Road that will contain 163 apartment suites with a mixture of 1-Bedroom, 2-Bedroom and 3-Bedford units.

- It includes an estimate of new site generated trips and an assessment of existing traffic volumes in the surrounding area.

- Access to the property will be from a new driveway on Purcells Cove Road located at the southern portion of the property that will provide access to the underground parking and the main entrance to the building. An exit only driveway will also be provided to the north

- Two levels of underground parking will be included with a total of 122 parking spaces and 76 Class A bicycle spaces are included on Level P1. Surface parking will also be provided for 20 vehicles and 16 Class B bicycle spaces.

- Based on ITE Trip Generation Rates, we estimate that the proposed development will generate **44** new vehicle trips in the AM peak hour and **52** new vehicles in the PM Peak Hour.

- Site generated traffic will most likely follow existing trip distribution patterns on Purcells Cove Road in the AM and PM peak hours with the majority of traffic traveling north towards the Armdale Roundabout (78%) in the AM peak hour and the majority of traffic heading southbound during the PM peak hour (68%) away from the Armdale Roundabout.

- Stopping Sight Distance is adequate on Purcells Cove Road at the proposed new driveway to the new 163-unit apartment building.

- The area around the proposed development is well serviced by Halifax Transit on Route 25 Governors Brook that provides regular service 7 days a week with connections to the rest of the transit network in HRM.

- The site is also located in a pedestrian and bicycle friendly area so it fits well with HRM's Active Transportation Program that aims to help residents bike, walk and use other human power ways to move around the city. HRM's Integrated Mobility Plan (IMP) has set a target that at least 30% of trips will be made by walking, bicycling or transit while no more than 70% will be made by private vehicles.

- We recommend that the driveway be designed and constructed in accordance with HRM Design Guidelines and Transportation Association of Canada standards.

- Traffic created by this proposed residential development is not significant so we do not expect any significant impacts to the surrounding transportation network.