

December 18, 2020

Mr. Tony Chedrawy  
Yellowstone Commercial  
11 Thornhill Drive, Unit 165  
Dartmouth NS B3B 1R7

[via email: [tony@yellowstonecommercial.com](mailto:tony@yellowstonecommercial.com)]

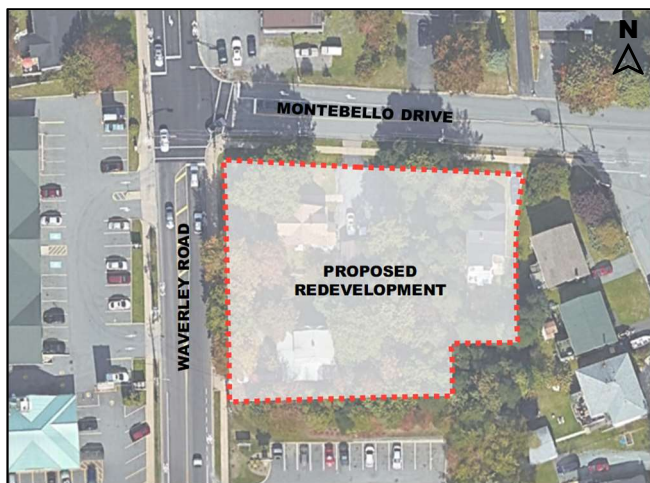
**RE: Traffic Impact Statement – Proposed Redevelopment  
Waverley Road & Montebello Drive, Dartmouth, NS**

Dear Mr. Chedrawy:

Plans are being prepared to redevelop the corner of Waverley Road and Montebello Drive in Dartmouth, Nova Scotia. This is the Traffic Impact Statement for the redevelopment of this site.

**SITE AND ACCESS DESCRIPTION**

The proposed redevelopment is expected to be located on a site consisting of three (3) parcels bound by Waverley Road and Montebello Drive (PID 00249771, 00249789 and 00249797), as shown in Figure 1. The existing site is currently occupied by three (3) Single Family Dwellings (246 Waverley Road, 2 Montebello Drive and 4 Montebello Drive). The proposed redevelopment is expected to consist of 46 Mid-Rise Apartments with 39 underground parking spaces. The proposed site plan is represented in Figure 2. Vehicular access to the underground parking for the proposed redevelopment is proposed on Montebello Drive, approximately 60 m east from the signalized intersection at Waverley Road.



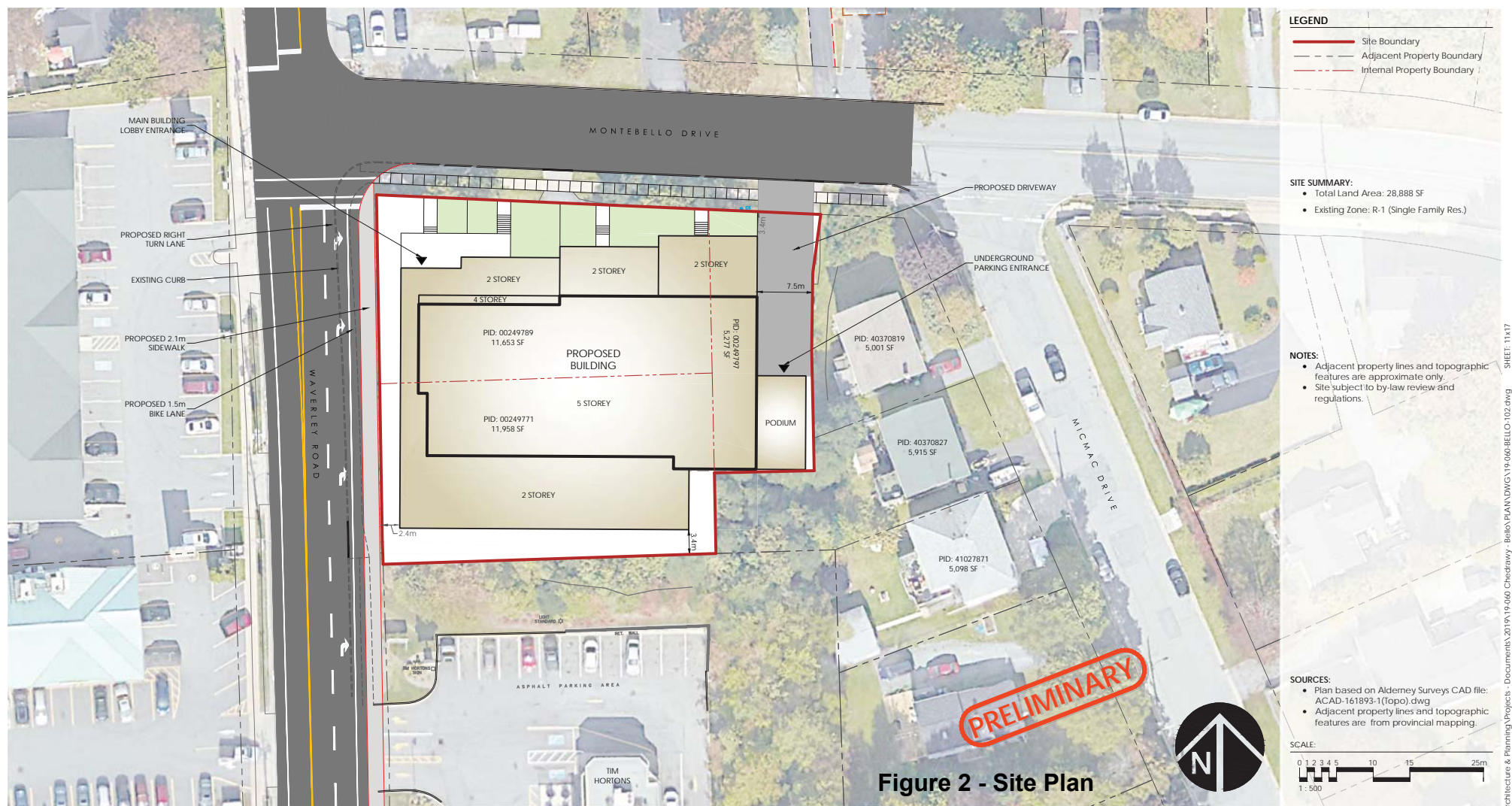
**Figure 1 – Study Area**

**STREET AND INTERSECTION DESCRIPTIONS**

**Montebello Drive** is a collector road that runs east-west for approximately 900 m between Waverley Road and Caledonia Road. In the study area, Montebello Drive consists of a two-lane cross section with sidewalk on the south side. Parking is prohibited on both sides of the street and the posted speed limit is 50 km/h.

**Waverley Road** is a major collector road that runs north-south with sidewalks and painted bicycle lanes on both sides. In the study area, Waverley Road consists of a two-lane cross section and parking is prohibited on both sides of the street and the posted speed limit is 50 km/h. Halifax Transit currently operates Route #55 (Port Wallace) on Waverley Road past the proposed redevelopment.

**Waverley Road at Montebello Drive** is a 3-leg signalized intersection. The westbound Montebello Drive approach consists of one right turn lane and one left turn lane. The northbound Waverley Road approach consists of a single lane and the southbound Waverley Road approach is supplemented with a left turn lane. The south and east legs of the intersection include a painted pedestrian crosswalk consisting of parallel bars.



Zwicker  
Zareski  
architecture +  
planning

1 Canal Street, Dartmouth, NS B2Y 2W1 Zzap.ca

## Site Plan : The Bello | Waverley Road / Montebello Drive

Dartmouth, Nova Scotia

Version 102

Designer: K.WATTERS

Planner: C.WALLACE

Date:  
AUGUST 26, 2019

FILE: C:\Users\Kwicker\Documents\2019\19-060 Chedrawy - Bello\PLAN\DWG\19-060-BELLO-102.dwg SHEET: 11x17

## TRAFFIC VOLUME DATA

A turning movement count from September 2013 was obtained by HRM at the signalized intersection of Montebello Drive which indicated two-way volumes of 1,195 vehicles per hour (vph) during the AM peak hour and 1,515 vph during the PM peak hour.

## TRIP GENERATION

When using the published trip generation rates in *Trip Generation Manual, 10<sup>th</sup> Edition* (Institute of Transportation Engineers, Washington, 2017) the transportation engineer's objective should be to provide a realistic estimate of the number of trips that will be generated.

The *Trip Generation Manual* was used to estimate generated trips by the existing site as well as the proposed redeveloped site. The existing site is currently occupied by residential properties consisting of three (3) Single Family Dwellings. The proposed redevelopment is expected to consist of 46 Mid-Rise Apartments. Generated trips for Single Family Dwellings (Land Use 210) and Mid-Rise Apartments (Land Use 221) are estimated for the AM and PM peak hours of weekday traffic by the number of dwelling units.

Trip generation estimates were prepared for the existing site and are summarized in Table 1. It was estimated that the existing site currently generates approximately:

- 3 two-way primary vehicle trips (1 entering and 2 exiting) during the AM peak hour; and,
- 3 two-way primary vehicle trips (2 entering and 1 exiting) during the PM peak hour.

Trip generation estimates were prepared for the proposed redevelopment and are summarized in Table 2. It was estimated that the redevelopment will generate approximately:

- 13 two-way primary vehicle trips (3 entering and 10 exiting) during the AM peak hour; and,
- 16 two-way primary vehicle trips (10 entering and 6 exiting) during the PM peak hour.

When trips generated by the existing site are considered, it is estimated that the redeveloped site will generate:

- **10 new** two-way primary vehicle trips (2 entering and 8 exiting) during the AM peak hour; and,
- **13 new** two-way primary vehicle trips (8 entering and 5 exiting) during the PM peak hour.

**Table 1 – Trip Generation Estimates for the Existing Site**

Land Use <sup>1</sup>	Units <sup>2</sup>	Trip Generation Rates <sup>3</sup>				Trips Generated <sup>4</sup>			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
EXISTING SITE									
Single Family Housing <sup>5</sup> (Land Use 210)	3 Units	0.19	0.56	0.62	0.37	1	2	2	1
Trip Generation Estimate for Existing Site						1	2	2	1
20% Reduction in Trip Estimate for Non-Auto Modes <sup>6</sup>						0	0	0	0
Total Primary Trips Generated by the Existing Site						1	2	2	1
Notes: 1. Land Use Code 210 rates and equations are from <i>Trip Generation, 10th Edition, (Institute of Transportation Engineers, Washington, 2017)</i> . 2. 'Number of Residential Units' for Single Family Housing. 3. Trip generation rates are 'vehicles per hour per unit'. 4. Trips generated are 'vehicles per hour' for AM and PM peak hours. 5. Waverley Road Civic No. 246 and Montebello Drive Civic No. 2 and 4. 6. In 2011, approximately 20% of trips were made by transit or using active transportation in the Inner Suburban Area of Halifax. The Halifax Integrated Mobility Plan has a 26% target for non-auto trips within the Inner Suburban Area of Halifax by 2031 (Page 40, IMP, 2017). A conservative reduction of 20 % was used to account for non-auto trips (transit, bicycle and walking trips) generated to the site.									



**Table 2 – Trip Generation Estimates for the Proposed Redevelopment**

Land Use <sup>1</sup>	Units <sup>2</sup>	Trip Generation Rates <sup>3</sup>				Trips Generated <sup>4</sup>			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
PROPOSED REDEVELOPMENT									
Mid-Rise Apartments (Land Use 221)	46 Units	0.09	0.27	0.27	0.17	4	12	12	8
Trip Generation Estimate for Proposed Redevelopment						4	12	12	8
20% Reduction in Trip Estimate for Non-Auto Modes <sup>5</sup>						1	2	2	2
Total Primary Trips Generated by the Proposed Redeveloped Site						3	10	10	6
Notes: 1. Land Use Code 221 rates and equations are from <i>Trip Generation, 10th Edition, (Institute of Transportation Engineers, Washington, 2017)</i> . 2. 'Number of Residential Units' for Mid-Rise Apartments. 3. Trip generation rates are 'vehicles per hour per unit'. 4. Trips generated are 'vehicles per hour' for AM and PM peak hours. 5. In 2011, approximately 20% of trips were made by transit or using active transportation in the Inner Suburban Area of Halifax. The Halifax Integrated Mobility Plan has a 26% target for non-auto trips within the Inner Suburban Area of Halifax by 2031 (Page 40, IMP, 2017). A conservative reduction of 20 % was used to account for non-auto trips (transit, bicycle and walking trips) generated to the site.									

## ACCESS REVIEW

In the vicinity of the proposed site, there is a significant grade present on the eastbound and westbound approaches of Montebello Drive. Due to the presence of the grade, sightlines were reviewed at a high-level for stopping sight distances. The available sightlines appear to be adequate for a driveway onto Montebello Drive. The approximate sightlines from the proposed driveway are shown in Photos 1 and 2.



**Photo 1 – Looking west (to the left) on Montebello Drive from the Proposed Underground Parking Access**



**Photo 2 – Looking east (to the right) on Montebello Drive from the Proposed Underground Parking Access**

## SUMMARY

1. The proposed redevelopment is expected to be located on a site consisting of three (3) parcels bound by Waverley Road and Montebello Drive that are currently occupied by three (3) Single Family Dwellings. The redevelopment is expected to consist of 46 Mid-Rise Apartments with 39 underground parking spaces.
2. Access to the proposed underground parking garage is planned from Montebello Drive. Sight distances appear adequate for a driveway onto Montebello Drive.
3. The proposed site is expected to generate 10 new two-way primary trips during the AM peak hour and 13 new two-way primary trips during the PM peak hour.

## CONCLUSION

4. The proposed redevelopment is not expected to have any significant impact to levels of performance on adjacent streets, intersections or to the regional transportation system.

If you have any questions or comments, please contact me by email at [courtney.mccarthy@wsp.com](mailto:courtney.mccarthy@wsp.com) or by telephone at 902-536-0982.

Sincerely,

**Original Signed**

Courtney McCarthy, P.Eng.  
Transportation Engineer  
WSP Canada Inc.

