

Ref. No. 171-00927 Task 17

October 30, 2020

Ms. Ashley Blissett, P. Eng. Senior Development Engineer Halifax Regional Municipality PO Box 1749 HALIFAX NS B3J 3A5

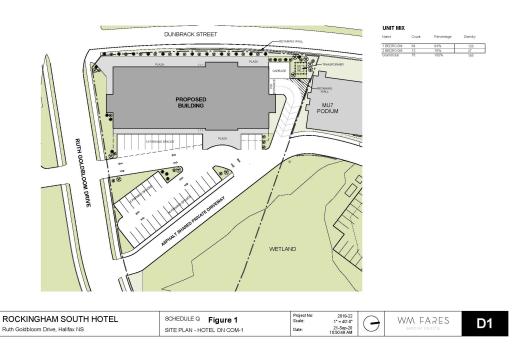
RE: Traffic Impact Statement, Proposed Multi-Unit Residential Building with Ground Floor Commercial Space, Ruth Goldbloom Drive, Halifax

Dear Ms. Blissett:

W. M. Fares Architects is planning for construction of a 76 unit residential building with approximately 11,500 SF of neighbourhood oriented ground floor commercial space on a parcel of land at the northeast corner of Dunbrack Street and Ruth Goldbloom Drive in Rockingham South.

Project Description - Rockingham South Ltd. now has approval for construction of a two story 24,000 SF commercial building on the site under a DA dated June 24, 2016. They want to change the land use to allow construction of a Multi-Unit Residential Building with Ground Floor Commercial Space.

Site Access - Site driveways are as previously approved in the DA. The driveways on Ruth Goldbloom Drive (Figure 1) include a driveway opposite the Gas Bar on the south side of the street as well as a shared private driveway further east along the street. Site traffic will access the regional street system at the existing signalized Dunbrack Street / Ruth Goldbloom Drive intersection.



Trip Generation Estimates - Trip generation estimates for land uses considered appropriate for the approved 24,000 SF commercial building allowed in the current DA and the proposed multi-unit residential building with ground floor commercial space are compared in Table 1.

It is estimated that the approved commercial building could generated approximately 81 two-way vehicle trips (51 entering and 30 exiting) during the AM peak hour and 93 two-way vehicle trips (44 entering and 49 exiting) during the PM peak hour.

It is estimated that the proposed 76 unit residential building with 11,500 SF of commercial space will generate 35 two-way vehicle trips (16 entering and 19 exiting) during the AM peak hour and 52 two-way vehicle trips (26 entering and 26 exiting) during the PM peak hour.

The proposed residential building with ground floor commercial space is estimated to generate 46 fewer two-way vehicle trips (35 fewer entering and 11 fewer exiting) during the AM peak hour and 41 fewer two-way vehicle trips (18 fewer entering and 23 fewer exiting) during the PM peak hour.

Table 1 - Comparison of Trip Estimates for Approved Commercial Land Use and Proposed Residential Building									
Land	Number Units ²	Trip Generation Rates ³				Trips Generated ³			
Use ¹		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Trip Generation Estimates for Approved 24,000 SF Commercial Building									
Sit Down Restaurant (Land Use 932)	6.0 KGFA	5.47	4.47	6.06	3.71	33	27	36	22
Medical / Dental (Land Use 720)	12.0 KGFA	2.17	0.61	0.97	2.49	26	7	12	30
Specialty Retail ⁴ (Land Use 826)	6.0 KGLA	0.76	0.60	1.19	1.52	5	4	7	9
Total Estimated Trips for Commercial Land Use						64	38	55	61
Trips Reduction - Non-vehicle Trips and On-Site Synergies ⁵						13	8	11	12
Estimated Total External Vehicle Trips for Approved Commercial Land Use						51	30	44	49
Trip Generation Estimates for Proposed Multi-Unit Residential Building with Ground Floor Commercial Space									
Mid-Rise Apartment ¹ (Land Use 221)	76 units	AM Peak Hour $Ln(T) = 0.98 Ln(x) - 0.98$ PM Peak Hour $Ln(T) = 0.96 Ln(x) - 0.63$				7	19	21	13
Small Office Building (Land Use 712)	5.75 KGFA	1.59	0.33	0.78	1.67	9	2	4	10
Specialty Retail ⁴ (Land Use 826)	5.75 KGLA	0.76	0.60	1.19	1.52	4	3	7	9
Total Estimated Trips for Commercial Land Use						20	24	32	32
Trips Reduction - Non-vehicle Trips and On-Site Synergies 5						4	5	6	6
Estimated Total External Vehicle Trips for Approved Commercial Land Use						16	19	26	26
Comparison of Trip Generation Estimates - Approved Commercial Land Use and Proposed Residential Development									
Reduction in Trip Estimates for Proposed Multi-Unit Residential Building						35	11	18	23

- NOTES: 1. Rates and equations are for indicated Land Use Codes, *Trip Generation*, 10th Edition, Institute of Transportation Engineers, 2017, except as noted.
 - 2. KGLA is 'Gross Leasable Area x 1000 square feet'; KGFA is 'Gross Floor Area x 1000 square feet'.
 - 3. Rates are 'vehicles per hour per unit'; trips generated are 'vehicles per hour for peak hours'.
 - 4. Since 10th Edition does not include Specialty Retail, rates for Land Use 826 from the 9th Edition have been used. Since there is no published rate for the AM peak hour of adjacent street for this Land Use, and since AM peak hour trips to Speciality Retail are generally low, AM trip rates have been assumed to be 50% of the PM rate with reversal of the directional split
 - 5. A 20% adjustment has been applied to account for local trips from other Rockingham areas near the site, and cross shopping and on-site synergies between the various land uses in Rockingham South.

Summary -

WSP Canada Inc. October 30, 2020

Summary -

- 1. While the land use approved in a 2016 DA allows construction of a 24,000 SF commercial building, the proponent now wants to build a 76 unit residential building with approximately 11,500 SF of ground floor commercial space on the site.
- 2. Site driveways from Ruth Goldbloom Drive will be as previously approved in the DA.
- 3. The proposed 76 unit residential building with 11,500 SF of commercial space is estimated to generate 35 two-way vehicle trips (16 entering and 19 exiting) during the AM peak hour and 52 two-way vehicle trips (26 entering and 26 exiting) during the PM peak hour.
- 4. It is estimated that the proposed residential building with ground floor commercial space will generate 46 fewer two-way vehicle trips (35 fewer entering and 11 fewer exiting) during the AM peak hour and 41 fewer two-way vehicle trips (18 fewer entering and 23 fewer exiting) during the PM peak hour, than the approved commercial building.

Conclusion -

Since the proposed residential building with neighbourhood oriented ground floor commercial space is estimated to generate significantly fewer peak hourly trips than the approved commercial land use, site traffic will use approved driveways on Ruth Goldbloom Drive, and site traffic will access the regional street network at the existing signalized Dunbrack Street / Ruth Goldbloom Drive intersection, the proposed change in land use will not have any negative impacts on traffic performance.

If you have any questions, please contact me by Email to <u>ken.obrien@wsp.com</u> or telephone 902-452-7747.

Sincerely:

Ken O'Brien, P. Eng. Senior Traffic Engineer WSP Canada Inc.

