



Ref. No. 181-11012 Phase 002

September 19, 2018

Anne Winters MCIP, LPP
WSP Canada Inc.
1 Spectacle Lake Drive
DARTMOUTH NS B3B 1X7

Sent via Email to anne.winters@wsp.com

**RE: Traffic Impact Statement, Proposed Senior Attached Housing Development,
20 Sea King Drive, Dartmouth**

Dear Ms. Winters:

This is the Traffic Impact Statement that you have requested for the proposed Seniors Attached Housing Development at 20 Sea King Drive, Dartmouth.

Description of Development Site - The proposed development (Figure 1), is on vacant land on the west side of the Lancaster Drive, Dartmouth. The site is bounded by Lancaster Drive to the east, Woodland Avenue to the south, existing residential development to the west, and existing development and Sea King Drive to the north. Site access will include a right-in / right-out intersection on the west side of Lancaster Drive and a full movement intersection on Sea King Drive as illustrated on Figure 1.

Lancaster Drive is a minor collector street with a curbed median and a sidewalk on the west side adjacent to the site. The street section adjacent to the site runs between the signalized Woodland Avenue intersection to the south and an All-Way Stop intersection at Sea King Drive to the north. Visibility is good on Lancaster Drive at the proposed right-in / right-out street intersection (Photos 1 and 2).



Photo 1 - Looking left on Lancaster Drive towards Sea King Drive from the proposed right-in / right-out intersection location.



Photo 2 - Looking right on Lancaster Drive towards Woodland Avenue from the proposed right-in / right-out intersection location.

Description of Pedestrian Facilities - There are sidewalks on the west side of Lancaster Drive and the north side of Sea King Drive. There are crosswalks at the Lancaster Drive / Sea King Drive All-Way Stop intersection and at the signalized Woodland Avenue / Lancaster Drive intersection.

Transit Service - Halifax Transit provides service on Sea King Drive and Lancaster Drive for Route Numbers 66 and 72. Transfers to other routes are available at Micmac Terminal at Micmac Mall south of Woodland Avenue.

LEGEND

-  Site Boundary
-  Adjacent Property Boundary
-  Proposed Property Boundary
-  Wetland (to be altered)
-  .29x48ft Unit

SITE SUMMARY:

- Land Area: 54,676 m²
- Existing Zone: R-1
- 103 Proposed Units
- Total Road Length: 810m
- 16m ROW with 9m Road
- Setbacks (min.): Front 4.6m / 15ft
Rear 6.7m / 22ft
Side 3.05m / 10ft
Rear 6.1m / 20ft

NOTES:

- Adjacent property lines approximate only.

Figure 1

SOURCES:

- GEMVARS survey plan '131-15798-620.dwg' dated June 17, 2013

Designer: KWATTERS
Planner: AWINTERS

VERSION
108

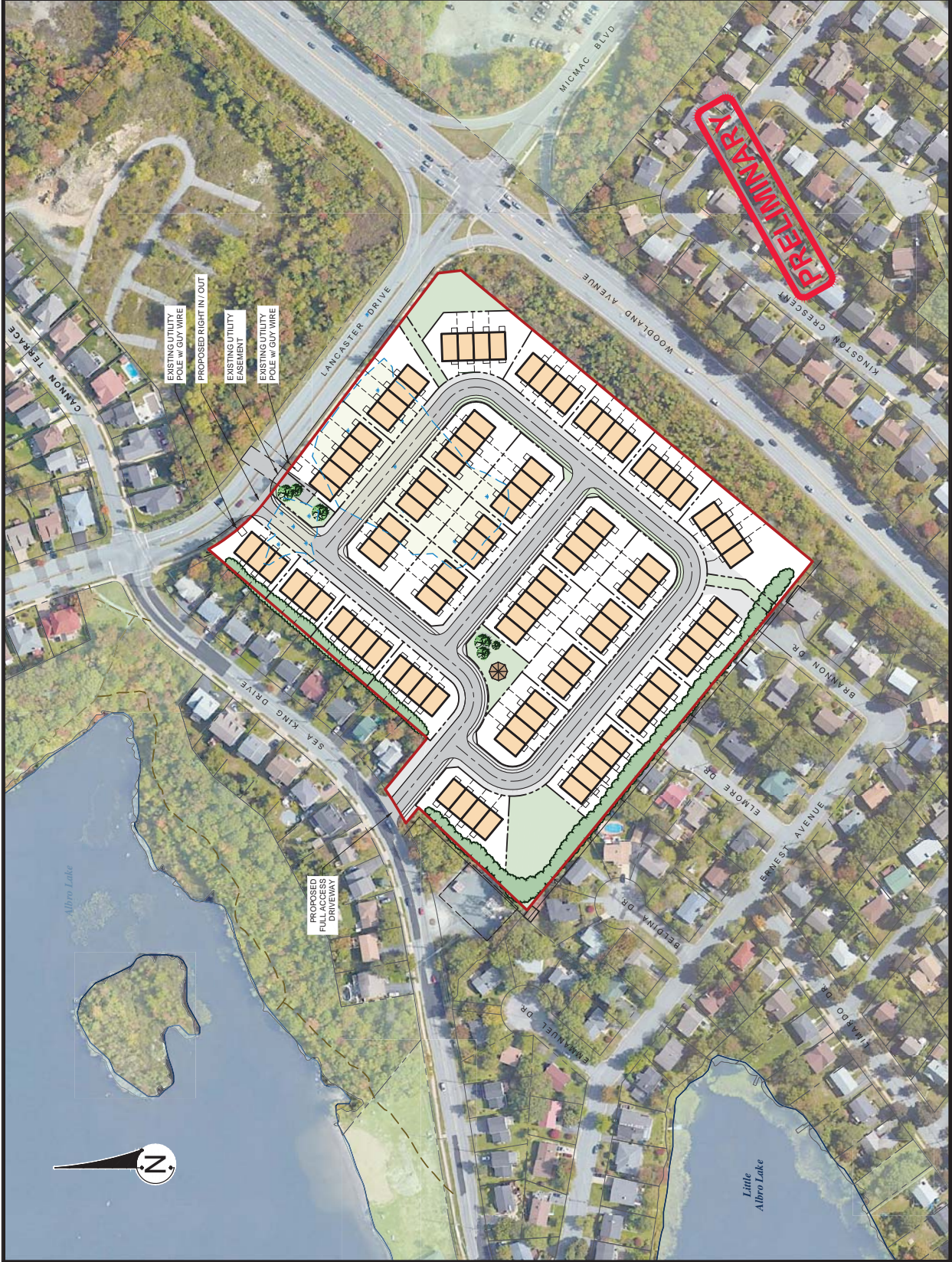
**CONCEPT PLAN
WOODLAND AVE / LANCASTER DR.
DARTMOUTH, NOVA SCOTIA**

3319412 NS LTD.
SEPTEMBER 17, 2018 181-1012-108

SCALE
1:2,000
0 10 20 30 40 50 m



1 SPECTACLE LAKE DRIVE DARTMOUTH, NS, CANADA B3B 1Z7
PHONE: 902-555-9595 WSP.COM



Sea King Drive is a minor collector street with curbs on both sides and a sidewalk on the north side opposite the site. The street section adjacent to the site runs between the Albro Lake Road and Ernest Avenue intersection to the west and an All-Way Stop intersection at Lancaster Drive to the east. Visibility is good on Sea King Drive at the proposed full movement street intersection (Photos 3 and 4).



Photo 3 - Looking left on Sea King Drive towards Ernest Avenue from the location of a proposed full movement intersection.



Photo 4 - Looking right on Sea King Drive towards Lancaster Drive from the location of a proposed full movement intersection.

Traffic Volumes - A turning movement count obtained by HRM Traffic and Right of Way section at the Woodland Avenue / Lancaster Drive intersection during mid-May 2017 indicated Lancaster Drive two-way volumes of 505 vehicles per hour (vph) during the AM peak hour and 835 vph during the PM peak hour. A machine count obtained on Sea King Drive between Ernest Avenue and Lancaster Drive during mid-June 2017 indicated two-way volumes of 380 vehicles per hour (vph) during the AM peak hour and 490 vph during the PM peak hour.

Trip Generation Estimate for Proposed Development - The development is planned to include approximately 103 Senior Attached Units in groupings of three to five townhouses. Trip generation estimates, prepared using published trip generation equations from *Trip Generation, 10th Edition*, (Institute of Transportation Engineers, 2017), are included in Table 1. It is estimated that the proposed development will generate 20 two-way vehicle trips (7 entering and 13 exiting) during the AM peak hour and 26 two-way vehicle trips (14 entering and 12 exiting) during the PM peak hour.

Land Use ¹	Units ²	Trip Generation Rates ³				Trips Generated ³			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Senior Adult Housing Attached (Land Use 252)	103 units	0.07	0.13	0.14	0.12	7	13	14	12
NOTES: 1. Rates are for the indicated Land Use Code, <i>Trip Generation, 10th Edition</i> , Institute of Transportation Engineers, 2017, except as noted. 2. Units are 'Number of Senior Attached Residential Units' 3. Rates are 'vehicles per hour per unit'; trips generated are 'vehicles per hour for peak hours'.									

Other Proposed Development in the Area - First Baptist Church - Dartmouth propose construction of a 30,000 SF church building and two apartment buildings with a total of approximately 120 units on a site on the east side of Lancaster Drive opposite the proposed Senior Attached Housing development.

The church is not expected to generate any significant trips during weekday AM and PM peak hours. It is estimated (Table 2) that the proposed mid-rise apartment units will generate 43 two-way vehicle trips (11 entering and 32 exiting) during the AM peak hour and 52 two-way vehicle trips (32 entering and 20 exiting) during the PM peak hour.

Land Use ¹	Units ²	Trip Generation Rates ³				Trips Generated ³			
		AM Peak		PM Peak		AM Peak		PM Peak	
		In	Out	In	Out	In	Out	In	Out
Mid-Rise Apartment (Land Use 221)	120 units	0.09	0.27	0.27	0.17	11	32	32	20

NOTES: 1. Rates are for the indicated Land Use Code, *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017, except as noted.
2. Units are 'Number of Apartments'.
3. Rates are 'vehicles per hour per unit'; trips generated are 'vehicles per hour for peak hours'.

Summary -

1. The proposed development on the west side of Lancaster Drive is planned to include approximately 103 Senior Attached Housing townhouse units.
2. The development will be served by a right-in / right-out street intersection on Lancaster Drive towards the north end of the site and a full movement street access on Sea King Drive towards the west side of the site. Visibility is good on street approaches to both intersection locations.
3. It is estimated that the proposed development will generate 20 two-way vehicle trips (7 entering and 13 exiting) during the AM peak hour and 26 two-way vehicle trips (14 entering and 12 exiting) during the PM peak hour.
4. Counts obtained by HRM during 2017 indicate the following two-way volumes in the vicinity of proposed street intersections:
 - Lancaster Drive - 505 vehicles per hour (vph) during the AM peak hour and 835 vph during the PM peak hour;
 - Sea King Drive - 380 vph during the AM peak hour and 490 vph during the PM peak hour.
5. There are sidewalks on the west side of Lancaster Drive and the north side of Sea King Drive. There are crosswalks at the Lancaster Drive / Sea King Drive All-Way Stop intersection and at the signalized Woodland Avenue / Lancaster Drive intersection.
6. Halifax Transit provides service on Sea King Drive and Lancaster Drive for Route Numbers 66 and 72. Transfers to other routes are available at Micmac Terminal at Micmac Mall south of Woodland Avenue.
7. Other development for this area proposed by First Baptist Church - Dartmouth includes a 30,000 SF church building and two apartment buildings with a total of approximately 120 units on the east side of Lancaster Drive opposite the proposed Senior Attached Housing development. The church is not expected to generate any significant trips during weekday AM and PM peak hours. It is estimated that the proposed mid-rise apartment units will generate 43 two-way vehicle trips (11 entering and 32 exiting) during the AM peak hour and 52 two-way vehicle trips (32 entering and 20 exiting) during the PM peak hour.

Conclusions -

8. The low numbers of trips estimated to be generated by the proposed Senior - Attached Housing development are not expected to have any significant impact to the operation of adjacent streets and intersections, or the regional street system.

9. Since trip generation estimates are low for both the proposed Senior - Attached Housing development and the First Baptist Church development, there is not expected to be any significant cumulative impacts to traffic operations on the adjacent streets and intersections.

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

Sincerely,

Original Signed

K
Senior Traffic Engineer
WSP Canada Inc.

