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30 April 2019

Project No. 192030

David Cahill
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Re: Traffic Impact Statement, Campsite, Prospect Road, East Dover, NS

Mr. Cahill,

Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality (HRM) requirements, to support the development application for a proposed campsite on Prospect Road in East Dover, Nova Scotia. The community of East Dover is part of the Halifax Regional Municipality.

Study Area and Site Context: The proposed development will be located on Prospect Road (Highway 333) between McGraths Cove Road and East Dover Road. The site context is illustrated in Figure 1.

Prospect Road is a rural arterial roadway that runs northeast-southwest from Highway 103 and St. Margaret's Bay Road (NS Trunk 3) in the Bayers Lake area to Peggy's Cove. In the vicinity of the proposed development, Prospect Road has a two-lane rural cross section and a posted speed limit of 80 km/h. There are no sidewalks or bicycle facilities along Prospect Road.

East Dover Road is the primary roadway into the community of East Dover; East Dover Road has a two-lane rural cross section. McGraths Cove Road is the primary roadway into the community of McGraths Cove; McGraths Cove Road has a two-lane rural cross section. There are no sidewalks or bicycle facilities along East Dover Road and McGraths Cove Road.

Description of Proposed Development: The proposed development will include a seasonal campsite with 18 tent sites. The main access to the campsite will be located on Prospect Road. The plan for the campsite is shown in Figure 2.

Access Review: The campsite will be accessed through a driveway on Prospect Road. The sight distance at the proposed driveway location was reviewed to ensure the required sight distance is available. For arterial roadways, the HRM *Municipal Design Guidelines (2013)* specifies that the minimum stopping sight distance (SSD) and the minimum turning sight distance (TSD) should be provided as defined by the Transportation Association of Canada's (TAC) *Geometric Design Guide for Canadian Roads.*

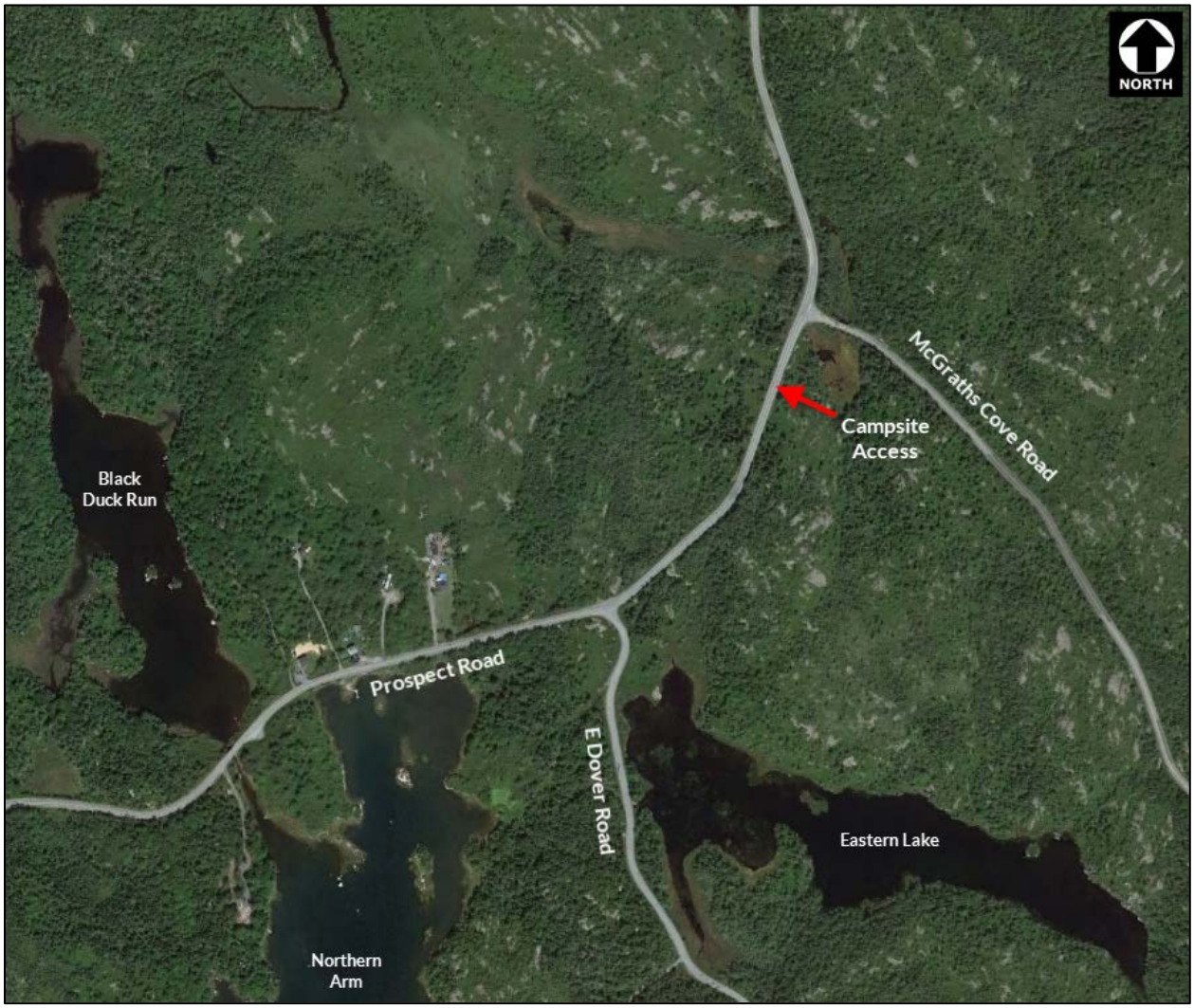

Figure 1: Site Context

The TAC *Geometric Design Guide for Canadian Roads* specifies the following sight distance requirements for a design speed of 80 km/h:

- Minimum stopping sight distance = 130 metres
- Minimum turning sight distance – left-turn from stop = 170 metres for traffic approaching from either the right or the left
- Minimum turning sight distance – right-turn and crossing from stop = 145 metres for traffic approaching from the left

Approximate measurements for the SSD and TSD at the proposed driveway location are illustrated in Figure 3. The SSD requirement of 130 metres along Prospect Road will be met in both directions.

The TSD requirement of 170 metres will be met looking to the right of the driveway (Figure 4). Looking to the left of the driveway (Figure 5) there is approximately 150 metres of sight distance available, which does not meet the TSD requirement of 170 metres for the left turn maneuver. The sight distance is restricted by a horizontal curve in the roadway, the trees and vegetation on the inside of the curve will need to be cleared in order to meet TSD requirement to the left of the driveway.

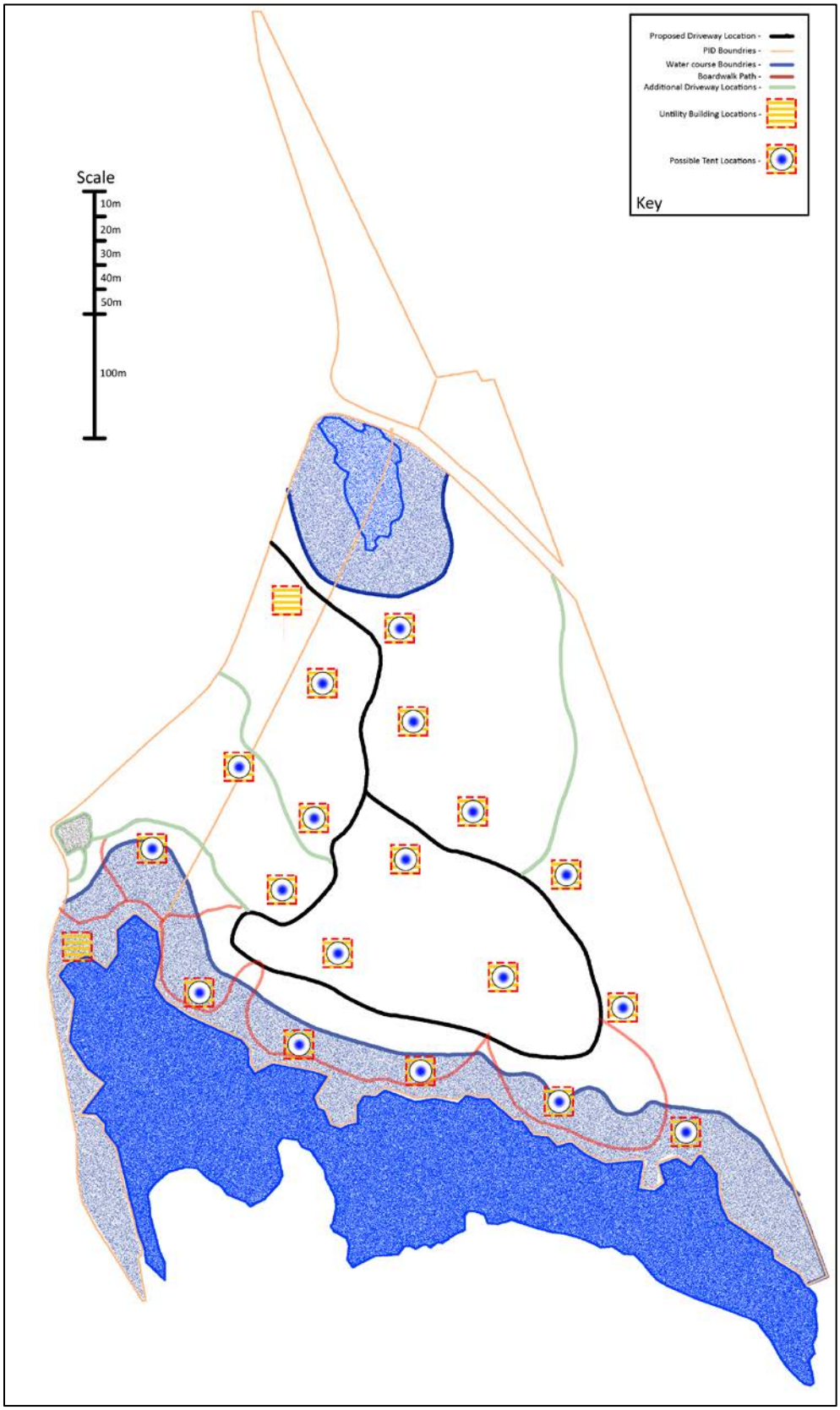

Figure 2: Development Plan

Figure 3: Approximate SSD and TSD measurements at the proposed driveway location

Figure 4: Sight distance looking to the right of the proposed driveway location

Figure 5: Sight distance looking to the left of the proposed driveway location

Estimation of Site Generated Trips: The vehicle trip generation estimates for the proposed development were quantified using trip generation rates 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 campsite are summarized in Table 1.

The proposed campsite is expected to generate 4 trips in the AM peak hour (1 trip in/3 trips out) and 5 trips in the PM peak hour (3 trips in/2 trips out). It is anticipated that the new vehicle trips associated with the proposed campsite can be accommodated along Prospect Road with a negligible impact on traffic operations.

Table 1: Trip Generation Estimates

Land Use[1]	Units		Trip Generation Rates[2]						Trips Generated[3]					
			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
			Rate	In	Out	Rate	In	Out	Total	In	Out	Total	In	Out
ITE LUC 416 - Campground/RV Park	18	Sites	0.21	36%	64%	0.27	65%	35%	4	1	3	5	3	2
Total Vehicle Trips									**4**	**1**	**3**	**5**	**3**	**2**

Notes:
1. Land use codes are from the Trip Generation Manual, 10th edition, Institute of Transportation Engineers, 2017.
2. Trip generation rates are in 'vehicles per hour per unit.'
3. Trips generated are in 'vehicles per hour'.

Summary and Conclusions: Harbourside Transportation Consultants has completed a traffic impact statement, as per Halifax Regional Municipality requirements, to support the development application for a proposed campsite on Prospect Road in East Dover, Nova Scotia.

The proposed development will be located on Prospect Road (Highway 333) between McGraths Cove Road and East Dover Road. The proposed development will include a seasonal campsite with 18 tent sites. The campsite will be accessed through a proposed driveway on Prospect Road.

The sight distance at the proposed driveway location was reviewed to ensure the required sight distance is available. The driveway will meet the stopping sight distance requirement (130 metres) in both directions on Prospect Road. The turning sight distance requirement (170 metres) will be met looking to the right of the driveway; the sight distance looking to the left of the driveway is restricted by a horizontal curve in the roadway and will not meet the requirement. Trees and vegetation on the inside of the curve will need to be cleared in order to meet turning sight distance requirement to the left of the driveway.

The vehicle trip generation estimates for the proposed development were quantified using trip generation rates from the 10th edition of the ITE *Trip Generation Manual*. The proposed campsite is expected to generate 4 trips in the weekday morning peak hour (1 trip in/3 trips out) and 5 trips in the weekday afternoon peak hour (3 trips in/2 trips out). It is anticipated that the new vehicle trips associated with the proposed campsite can be accommodated along Prospect Road with a negligible impact on traffic operations.

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

Regards,

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