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From: Michael A. Santos, PE, PTOE

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Re: Trip Generation Evaluation
145 Warren Street – Newton, Massachusetts

BSC Group, Inc. has conducted an evaluation of the trip generation characteristics of the proposed residential development to be located at 145 Warren Street (the “Project”) in Newton, Massachusetts.

Project Description

The Project will consist of the construction of a multifamily residential building with four units. Access will be provided by a single driveway along the north side of Warren Street, approximately 525 feet east of the intersection at Langley Road. The site currently contains one single family home that will be removed as part of the Project.

The Project will provide a 2 parking spaces per unit (8 total parking spaces) in enclosed garages. Parking is currently allowed along the north side of Warren Street.

Existing Conditions

The site is located along Warren Street, which is classified as a local roadway under the jurisdiction of the City of Newton. Warren Street operates as a one-way roadway in the westbound direction with sidewalks along both sides of the roadway. Parking is allowed along the north side of Warren Street.

Trip Generation

To estimate the number of trips generated by the Project, data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual*¹ were used. ITE provides data to estimate the total number of unadjusted vehicular trips associated with the Project. The following ITE Land Use Code (LUCs) were used to estimate trips related to the proposed Project and for the existing uses of the site:

Land Use Code 220 – Multifamily Housing (Low-Rise). This land use code refers to dwelling units located within the same building with at least three other dwelling units and that have one or two levels. Trip generation estimates are based on average trip rates per dwelling unit.

Land Use Code 210 – Single Family Detached Housing – This land use code refers to single homes on individual lots. Trip generation estimates are based on average trip rates per unit.

The trip generation estimates for the Project are presented in **Table 1**.

¹ Trip Generation Manual, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2018.

Table 1
Trip Generation Summary

<i>Time Period</i>	Existing Trips ¹	Project Trips ²	New Trips
<i>Daily</i>	10	30	20
<i>Weekday Morning Peak Hour</i>			
Enter	0	0	0
Exit	<u>1</u>	<u>2</u>	<u>1</u>
Total	1	2	1
<i>Weekday Evening Peak Hour</i>			
Enter	1	1	0
Exit	<u>0</u>	<u>1</u>	<u>1</u>
Total	1	2	1

1 Based on ITE LUC 210 – Single Family Detached Housing, 1 Unit
 2 Based on ITE LUC 220 – Multifamily Housing (Low-Rise), 4 Units

As shown in Table 1, the proposed Project is expected to generate approximately 30 trips on a daily basis (15 entering and 15 exiting trips). The Project will generate 2 trips during the commuter peak hours, which represents approximately one trip every 30 minutes and will not have a measurable impact on traffic operations along Warren Street. This represents an increase of 20 trips throughout the course of a day and an increase of one trips during the peak hours when compared to the existing and by-right uses of the site. The minimal trip generation estimates fall within the expected daily fluctuation in traffic volumes.

Conclusions

This evaluation indicates that the proposed development is expected to generate a minimal amount of vehicular traffic during the commuter peak hours (approximately one trip every 30 minutes). The Project will have negligible impact to the operations along Warren Street and the surrounding transportation infrastructure.