

Ref: 9568

November 22, 2023

Mr. Michael Antonellis  
Town Planner, Director of Land Use & Inspectional Services  
Town of Upton  
One Main Street  
Upton, MA 01568

Re: Traffic Flow Profile  
Proposed Multifamily Residential Development – 47 Main Street  
Upton, Massachusetts

Dear Michael:

By way of follow-up to the November 15, 2023, Zoning Board of Appeals (ZBA) hearing, Vanasse & Associates, Inc. (VAI) is providing supplemental information in response to questions concerning the trip-generation calculations that were presented in the June 15, 2023, *Transportation Impact Assessment* (the “June 2023 TIA”) that was prepared by VAI in support of the proposed multifamily residential development to be located at 47 Main Street (Route 140) in Upton, Massachusetts (the “Project”). Specifically, we have prepared a traffic flow profile for the Project that illustrates the volume of traffic that is expected to be produced on an average weekday on an hourly basis, which is illustrated on Figure 1.

As documented in the June 2023 TIA and confirmed by Stantec Consulting Services, Inc. (“Stantec”) on behalf of the Town, the Project is expected to generate approximately 310 vehicle trips on an average weekday (two-way, 24-hour volume), with 18 vehicle trips expected during the weekday morning peak-hour and 27 vehicle trips expected during the weekday evening peak-hour. The 310 daily vehicle trips were distributed over a 24-hour period using hourly trip distribution data measured for midrise multifamily residential communities and published by the Institute of Transportation Engineers (ITE).<sup>1</sup>

Figure 1 illustrates that the peak traffic volume hours for the Project will occur coincidental with the peak traffic volume hours of Main Street, with 18 vehicle trips expected to be produced between 7:00 and 8:00 AM and 27 vehicle trips expected between 5:00 and 6:00 PM. On either side of these peak hours, the traffic volumes are lower, and so are the corresponding traffic volumes along Main Street. Assessing the impact of the Project when both the volume of traffic on Main Street and the volume of traffic generated by the Project are at peak levels provides a conservative (high) and appropriate analysis condition.

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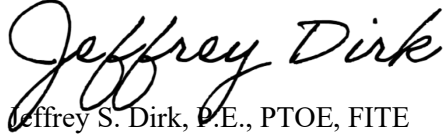
<sup>1</sup>*Trip Generation*, 11<sup>th</sup> Edition; Institute of Transportation Engineers; Washington, DC; 2021.

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Page 2 of 2

We trust that this information is responsive to the discussion at the ZBA hearing pertaining to the traffic characteristics of the Project. If you should have any questions, please feel free to contact me.

Sincerely,

VANASSE & ASSOCIATES, INC.

A handwritten signature in dark ink that reads "Jeffrey Dirk". The signature is fluid and cursive, with the first name "Jeffrey" and last name "Dirk" clearly legible.

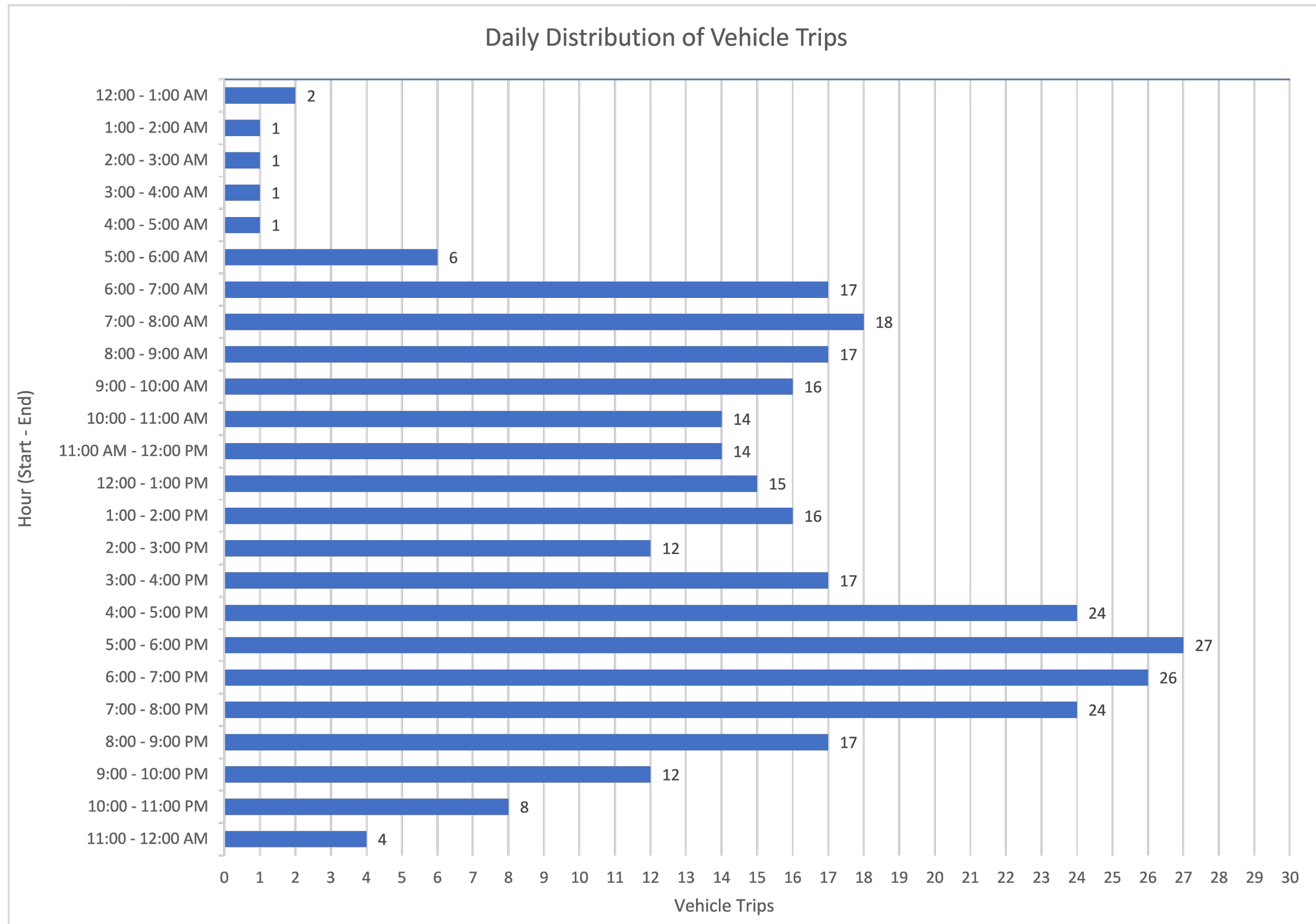
Jeffrey S. Dirk, P.E., PTOE, FITE  
Managing Partner

*Professional Engineer in CT, MA, ME, NH, RI, and VA*

JSD/jsd

Attachment





**Figure 1**

**Total Daily Vehicle Trips = 310**

**Daily Distribution of Vehicle Trips**