

## Trip Generation Studies for Special Generators

The Institute of Transportation Engineers (ITE) *Trip Generation*, 7th ed., which determines the number of trips produced or attracted by different developments, does not include town centers as a type of land use. It has also been argued that the ITE manual underestimates trip rates for age-restricted housing. This, coupled with the prominence of these types of developments in Maryland, merits further study into their impact on the surrounding roadway systems.

### Objectives

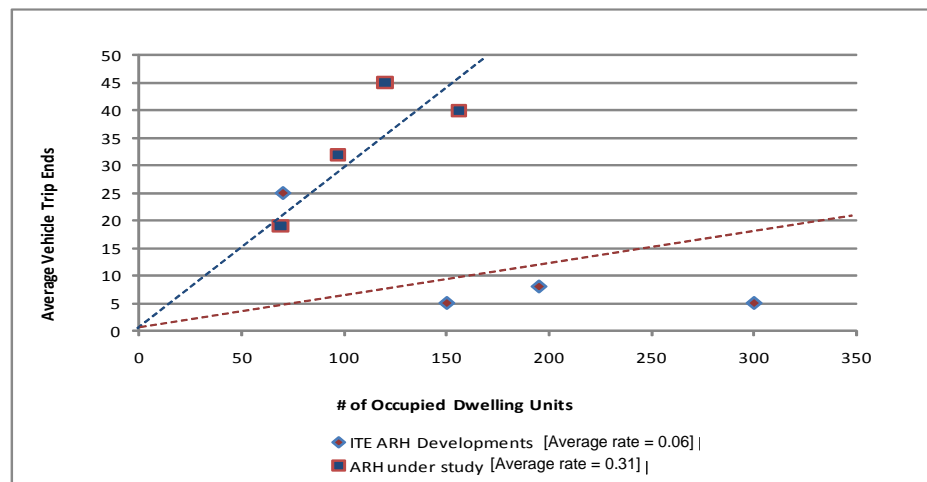
The main objectives of this research were to determine the effects of the two aforementioned special generators on surrounding roadways and nearby transit. This project satisfies SHA Business Plan Objective 2.2 (Congestion Relief); OPPE Business Plan – Emphasis Area 9.3 (OPPE-wide Efforts).

### Description

Five age-restricted housing developments and four town centers were chosen based on the ITE guidelines, as well as the SHA's current projects, development practices and staff recommendations. Counting devices were installed at all entrances and exits to count number of cars entering and exiting each development for one week. The morning and evening peak periods for the developments and their adjacent streets were observed and trip generation rates were identified based on the average of 15-minute counts.

### Results

The results verify that ITE manual underestimates trips generated by age-restricted housing (ARH). The ITE trip rates are 1/3 of what the research team calculated (as shown in the figure below). However, the age-restricted housings under study make between 27 to 63 percent fewer trips than the regular housing. The results also indicate that town centers warrant their own listing in the manual. Not only is it one of the fastest-growing development types in the United States but the team's comparison of the studied town center trip rates and the ITE rates for shopping centers denotes that town centers generate different trip rates.



### Report Information

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