

WHAT IS TRIP GENERATION?

TRAFFIC IMPACT ANALYSIS SERIES

A Traffic Impact Analysis is a study which assesses the effects that a particular development's traffic, zoning change, or special use approval will have on the transportation network in the community. These studies vary in their range of detail and complexity depending on the type, size and location of the development.

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Trip generation is used to determine the number of vehicles and/or people coming to/from a location. Trip generation is the first step in the conventional four-step transportation forecasting process (followed by trip distribution, mode choice and route assignment) used for forecasting travel demands. It is one of the first steps in every Traffic Impact Analysis (TIA) and is a concept of viewing travel behavior. A small error in a trip generation rate assessment results may significantly alter transportation decisions and financial commitments.



by location and adjacent land use (internal trips), size of the development and road user facility. The purpose of the trip generation is to determine the number of *vehicle trips* or *people trips* to and from activities in the analysis area. Usually where the land use is known for a small area, vehicle rates are used. For other types of studies, the use of person trips is preferred.

Trip Generation for Vehicles (Vehicle trip for TIA and corridor study purposes):

Vehicle trip is measured as a single vehicle regardless of the number of persons in the vehicle. For example, five people going to a restaurant in a van are considered one vehi-



cle trip. Typically, the Institute of Transportation Engineers (ITE) Trip Generation Manual and Handbook is the standard guide for trip generation.

Trip Generation for People (Person trip for modeling and planning purposes):

Person trip is measured as one person in any mode of transportation. If more than one person is on the trip, each person is counted as making one person trip. For example, four persons traveling together in one auto account for four person trips when possibly studying a High Occupancy Vehicle (HOV) study on a highway.

Trip generation plays a key role in showing travel behaviors that are important to both public and private sectors.

