



TRANSPORTATION ANALYSES

New development, redevelopment or changes of use may result in additional traffic generation above the existing levels in the area. This brochure is intended to provide applicants with a general overview of when these types of analyses are required and the process for retention of a consultant. As with any project, please consult with City staff if you have further questions.

OVERVIEW

Certain development proposals may require the retention of a qualified Traffic Engineer to prepare a transportation analysis or provide design guidance for on-site circulation facilities or modification of associated off-site transportation facilities. As a general rule of thumb the following conditions may require an analysis:

- Development is expected to add 100 net new trips in either the AM or PM peak hour on adjacent street traffic (*These types of increases generally result when there is a change from a less intense use, such as a warehouse to a more intensive use, such as an office building*);
- Development is in a sensitive area such as near schools;
- Development adds traffic to areas with complex or specialized roadway operations, such as a freeway interchange; or
- Other circumstances as determined by the Transportation and Traffic Manager. Such factors may include the existing roadway configuration, level of service in affected intersections, other development in the area and planned improvements.

City staff usually refers to the Institute of Transportation Engineers (ITE) Trip Generation manual to determine the difference between the number of trips resulting from the existing use and the number of trips resulting from the proposed use.

Questions and examples of trip generation rates for land uses have been provided on the back of this brochure as a reference to assist developers in determining if an analysis will be needed for the proposed project. While the questions are not all-inclusive of all scenarios for which a transportation analysis may be required, they are intended to inform applicants of the potential need to prepare a transportation analysis. The table may provide further guidance for developers.

PROCESS

New development, redevelopment or changes of use will generally require review by the Planning Division. City staff will review the required plans and application materials to determine if additional information is required. The City's Transportation and Traffic staff will make a final determination on the need for a transportation analysis. However, projects resulting in a "Yes" answer to any of the questions provided on the back are likely to require the preparation of an analysis. If an analysis is necessary, City Transportation and Traffic staff will prepare a scope of work, and the applicant is responsible for providing an analysis that meets the scope of work requirements. The analysis will be reviewed by City staff as part of the Planning Division review. Please consult with a planner at the One-Stop Permit Center if you have additional questions. The City encourages applicants to consult with a registered traffic engineer to assist with site design for projects that will create a considerable number of new vehicle trips or modify circulation, regardless of whether a formal transportation analysis is required.

Trip Generation

Trip generation is the number of vehicle trips created by a land use. It is typically calculated for the weekday peak hour of adjacent street traffic, but may be considered for other times depending upon the type of use (Sunday morning for a church, for example)

Net New Trips

This refers to the increase of vehicle trips above the existing levels.

Level of Service (LOS)

LOS is a function of the amount of time required to move through an intersection at peak travel times in the morning and evening.

QUESTIONS: POTENTIAL SCENARIOS REQUIRING PREPARATION OF A TRANSPORTATION ANALYSIS

- Will this project generate a significant number of new automobile trips over what the existing land use, or is located in a sensitive area, or adjacent to specialized roadway operations?
Response: Yes No
- Can the size, layout and condition of the site accommodate the internal traffic circulation needs without impacting the adjacent public street?
Response: Yes No
- Will this project require a General Plan Amendment to allow increased density on the site?
Response: Yes No
- Will this project feature motor vehicle drop off/pick up areas for patrons of the facility, such as students, seniors, congregation attendees, etc.?
Response: Yes No
- Is this project a non-residential use located in or adjacent to a residential neighborhood?
Response: Yes No
- Is this project compatible with other uses on the site in terms of traffic circulation and parking characteristics?
Response: Yes No
- Will the proposed use have a large number of delivery vehicles, or require access for large trucks?
Response: Yes No
- Is the project site located near intersections and/or roads that carry high volumes of traffic or experience delays?
Response: Yes No
- Will there be a significant number of vehicles turning in and out of the project site that could cause queues in the vicinity of the site or at nearby intersections?
Response: Yes No
- Will this project generate transit riders that cannot be accommodated by a nearby transit service?
Response: Yes No

EXAMPLES OF TYPICAL VEHICLE TRIP GENERATION RATES FOR LAND USES

Land Use	Average Trip Rate, PM peak Hour *
Single Family Housing	1.01 trips/dwelling unit
Apartments	0.62 trips/dwelling unit
Warehouse	0.32 trips/1,000 S.F. gross floor area
Hotel	0.59 trips/room
Day Care Center	12.46 trips/1,000 S.F. gross floor area
General Office	1.49 trips/1,000 S.F. gross floor area
High Turnover Sit Down Restaurant (not fast food)	0.41 trips/seat
Gas Station with Convenience Market	13.38 trips/fueling position
Strip Shopping Center	2.71 trips/1,000 S.F. gross leasable area

* Trip rates given are average rates and are presented for general reference only. Trip rates can vary with differing sizes and characteristics of development, and other factors that may be taken into account such as pass-by trips. Project-specific calculations will be made by City staff.