

TRAFFIC IMPACT STUDIES FOR SMART GROWTH

Traffic studies are at the heart of many decisions on land use and street design. Nelson\Nygaard has developed several tools that adjust typical trip generation rates to quantify the impact of a development's location, physical characteristics and TDM strategies.

Concerns with ITE Trip Generation

The Institute for Traffic Engineers' (ITE's) Trip Generation is the most definitive available source for estimating the automobile traffic that different land uses will generate. However, the information is most useful for auto-oriented, stand-alone suburban sites. For downtowns and areas with good public transportation, ITE advises that traffic engineers should collect local data, or adjust the ITE average trip generation rate to account for reduced auto use. All too often, however, ITE's warnings are ignored and standard trip generation rates are applied in inappropriate locations.

Software Development

In order to address this concern, Nelson\Nygaard worked with California's Air Quality Management Districts and the California State Department of Transportation to quantify the impact of key locational and programmatic factors on motor vehicle trip generation rates. These factors were then inserted into URBEMIS, a national model for calculating air quality impacts of development projects. The traffic mitigation component employs standard traffic engineering methodologies, but also evaluates developments that minimize their transportation impact.

Traffic Impact Studies

Nelson\Nygaard has used the URBEMIS traffic mitigation component in several recent traffic impact studies for smart growth projects in California. Due to location, density, access to transit and other trip mitigation measures, these developments are projected to generate 20-40% fewer trips than conventional suburban developments.



Recent Projects include:

- **San Marcos, California** —
Creskide Specific Plan
Heart of the City Downtown Redevelopment
- **San Mateo, California** — Delaware Place
(multi-family development)
- **Palo Alto, California** — Redevelopment of 325
Lytton Street in Palo Alto