

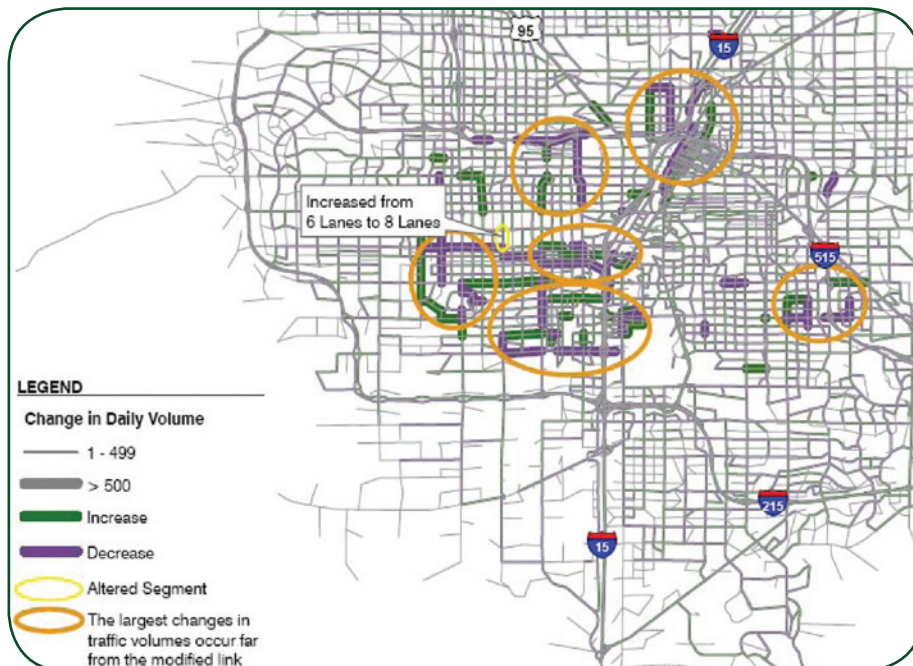
## Locally Valid Travel Demand Forecasting Models

*An essential state of the practice planning tool*

Many transportation planning or impact studies require the development of traffic volume forecasts. The state of the practice is to develop traffic forecasts for these types of projects using a locally validated travel demand model. These models may be stand alone city-wide or county-wide models or sub-area models extracted from a regional travel demand model.

Fehr & Peers has special expertise in the development of these models including ground-breaking work in dynamic validation techniques and methodology. Model validation is especially important because the validation process and results are the means by which models are judged as acceptable before applying them.

Using a validated model ensures that the forecasts are produced with the highest level of accuracy, confidence, and defensibility, which is particularly important for controversial projects prepared to comply with CEQA or NEPA.



*Dynamic validation test used to diagnose sensitivity problems in the Las Vegas model*



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# Locally Valid Travel Demand Forecasting Models

- **Who needs this?**

**Public Agencies, Institutions, and Developers**

Any entity that is planning or sizing public transportation infrastructure (especially the roadway network) should have a model that is validated to the level of intended application. These models can also provide output for use in transportation impact studies and transportation impact fee programs.

- **How is it better than what I already have?**

Use of historical traffic counts to estimate growth factors are the most common alternative to using a travel demand model. Growth factors provide an incomplete picture of future traffic volume growth. These methods are insensitive to future land use and socioeconomic changes and cannot predict how changes in the transportation network are likely to affect existing and future traffic flows.

Models validated via conventional static means, even those prescribed by authorities such as Caltrans and FHWA, may not respond accurately to changes in land use or transportation systems. Dynamic validation is necessary to insure that a model is appropriately sensitive to growth and development or future infrastructure alternatives.

- **Who else is using it?**

Many local jurisdictions (e.g., cities and counties) and institutions such as major universities have stand-alone or sub-area models used in their long-range planning and transportation impact analysis. Regional agencies such as MPOs almost all have some form of travel demand model. While these regional models are not appropriate for local applications such as corridor studies, interchange studies, or development impact studies, they are often a good starting point.

