



Memorandum

To: Board of Directors

From: Virginia Murillo, Transportation Planner

Meeting Date: February 28, 2018

Subject: Traffic Modeling Training

On January 30 - 31, I attended a traffic modeling class in Costa Mesa. The UC Berkeley Institute of Transportation Studies Tech Transfer hosted the Traffic Engineering-13 Synchro and SimTraffic 10 training. Many of our corridor studies and transportation plans require that we analyze traffic impacts, vehicle emissions, and intersection designs that are prepared using Synchro and SimTraffic software.

Fred Choa, P.E., and Kara Hall, EIT, traffic modeling experts, taught this two-day interactive class. Synchro 10 is a complete software package for analyzing and optimizing traffic signal operations and measuring macro-level impacts of transportation projects and new developments. SimTraffic 10 is a microscopic simulation tool that works together with Synchro to analyze traffic flow on an individual vehicle, pedestrian and bicyclist level. Both software packages provide planners and engineers with the tools to analyze highly congested corridors. As part of the class, we worked on an example traffic model from Davis, CA and covered:

- Preparing the model: drawing the street and road network and the intersection geometrics, inputting traffic volume data and traffic signal timings
- Identifying traffic signal timings and phasing
- Developing traffic impact analysis reports
- Analysis of intersection level of service based on the Highway Capacity Manual
- Optimizing traffic signals by network
- Developing a microsimulation of your network

This traffic modeling training was well attended by planners and engineers from cities and counties, Caltrans consulting firms that will be useful contacts in the future. This training was timely because I am working on the Canyon Del Rey (SR 218) Corridor Study that includes traffic modeling and intersection design concepts.