Traffic Analysis Software

Submittals

When submitting an analysis as part of the TMP that includes data generated by Synchro/SimTraffic, output tables showing a summary of the analysis shall be provided in the appendices and the associated Synchro/SimTraffic files shall be included with the submittal.

Best Practices

Independent synchro models must be developed for (a minimum) of the following conditions:

- Existing Conditions (current volumes without project build)
- Future conditions: 3 years out without anticipated build traffic
- Future conditions: 3 years out with anticipated build traffic included

All Models shall include

- Posted speed limits (on both ends of the link)
- Proper road names
- Roadway curvature matching existing conditions
- Dummy nodes shall only be used when appropriate (such as changing the number of lanes)
- Accurate peak hour factors

Traffic Signals

- Traffic signals being modeled under existing conditions and future no-build conditions shall reflect existing timings, coordination, etc. Signals may be calibrated to match field observations, with notes kept on changes to timings.
- Traffic signals for future build conditions may be optimized to a reasonable extent, including nearby coordinated traffic signals.
- Ped counts should be included when possible or when unavailable a minimum number of pedestrian calls shall be analyzed.

Reports

- 5 Runs of Sim Traffic (1 Hour simulations)
- Report the average of the 5 runs.
- Report queue lengths for the 95th percentile queue
- Dummy nodes must be reported
- Report Levels of service per approach and per intersection
- Most Recent HCM

Other considerations:

- Road names shall be provided
- Speed limits shall be set on both ends of the link
- Roadway curvature should be taken into account
- Existing conditions must mirror real-life observations, and the model should reflect that.