

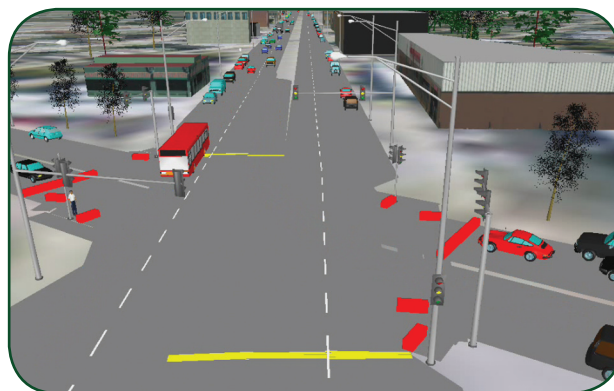


Bus Rapid Transit/Transit Signal Priority

Optimal Operation of BRT through Simulation of Transit Signal Priority

Stakeholders considering bus rapid transit and transit signal priority operations need a framework to both identify the appropriate TSP strategies and to assess the benefits of potential strategies. Multi-modal VISSIM simulation can perform comparative analysis of both existing traffic without-TSP conditions and a proposed with-TSP scenario, providing network-wide measures of effectiveness, including intersection level or service (LOS) and comparison of corridor travel times with- and without-TSP. The VISSIM microsimulation analysis can be used to determine the potential range of benefits that the addition of TSP has to both transit vehicles and passenger vehicles to meet the TSP goals of:

1. Improve efficiency and balance of overall transportation system, and
2. Increase transit system usage



Examples of simulations showing Bus Rapid Transit and Transit Signal Priority.

Bus Rapid Transit/Transit Signal Priority

- **Who needs this?**

Transit Agencies and Regional Planning Agencies

Metropolitan Planning Organizations, Councils of Governments, Regional Transportation Planning Agencies, County governments or cooperatives engaged in collaborative visioning and planning processes. The 5D's are especially beneficial in those large scale planning efforts that involve scenario planning, such as Portland/s Land Use, Transportation, Air Quality (LUTRAQ), Salt Lake City's Envision Utah, and Sacramento's Regional Blueprint.

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

Traditional transit planning does not provide the detailed measures of effectiveness that transportation engineers and planners need to quantify the benefits of implementing a BRT / TSP project. In addition, the traffic simulation presents the technical information in a format suitable for public presentations to elected officials and stakeholders.

- **Who else is using it?**

Fehr & Peers is leading the transportation field in the use of VISSIM microsimulation of BRT / TSP.

