

MEMORANDUM - CITY OF PASADENA
DEPARTMENT OF TRANSPORTATION

DATE: March 24, 2011

TO: Transportation Advisory Commission

FROM: Frederick C. Dock *F.C. Dock*
Director of Transportation

RE: Transportation Impact Review Guidelines

Recent passage of the Complete Street Act, Assembly Bill 1358, is the State of California legislators' recognition that the traditional automobile-based Level of Service (LOS) analysis is not an effective measure to protect environmental quality. AB 1358 requires that *"...the transportation plans of California communities must meet the needs of all users of the roadway including pedestrians, bicyclists, users of public transit, motorists, children, the elderly, and the disabled."*

Traditionally, traffic engineers have evaluated the traffic-related impacts of new development projects by measuring the relative convenience of motorists without measuring the direct or indirect impacts of the project on all users of the public right-of-way. Moreover, measures to mitigate the automobile impacts of new development projects may negatively impact other modes. As an example, a road widening measure which eases vehicular congestion at an intersection lengthens the crossing distance for pedestrians, thus degrading conditions for pedestrians.

The procedures in the City of Pasadena's Transportation Review Guidelines currently address impacts only for vehicular traffic. To comply with AB 1358, the Department of Transportation recommends updating the current guidelines to be consistent with Complete Streets by incorporating measures of impact for the four main modes of travel that use the street system (pedestrians, bicycles, transit and other vehicles).

The Department has been researching available analytical methodologies and recommends adopting the Multi Modal Level of Service (MMLOS) for Urban Streets methodology published by the National Cooperative Highway Research Program (Report No. 616) that is included in the 2010 Highway Capacity Manual update recently approved by the Transportation Research Board.

The MMLOS method is designed for evaluating “complete streets,” context-sensitive design alternatives, and smart growth from the perspective of all users of the street. The MMLOS evaluates the perceived quality of service for passenger car drivers, bus passengers, bicycle riders, and pedestrians. The MMLOS method estimates the auto, bus, bicycle, and pedestrian Level of Service on an urban street using a combination of readily available data and data normally gathered by an agency to assess auto and transit Level of Service. The data requirements of the MMLOS method include geometric cross-section, signal timing, the posted speed limit, bus headways, traffic volumes, transit patronage, and pedestrian volumes.

The current guidelines address both intersection and street segment impacts. Updating both of these requirements to be consistent with Complete Streets is recommended. Updating of the intersection analysis requirements is proposed to be accomplished by adding a pedestrian level of service component to the existing vehicular level of service calculation. For street segment analysis, the MMLOS segment analysis, which incorporates the traffic volume effects that are currently the basis for segment analysis, but also adds analyses for transit, bikes and pedestrians is recommended.

For additional information and comparison purposes, a brief summary of the results of two traffic case studies and MMLOS findings will be discussed at the March 24th, 2011 meeting. The full reports for these case studies will also be posted on the TAC WEB page.