

4.15.3.2 Transportation Demand Management (TDM)

The design concept for the HCLE Corridor alternative includes the provision for high occupancy vehicle (HOV) lanes. These lanes will allow for the exclusive use of carpools and transit vehicles. State law also allows alternative fuel vehicles to use the HOV lanes. The concept is designed to provide incentives for carpooling, transit riding, and the purchase and use of more fuel efficient vehicles. The incentives are derived from the ability of these vehicles to gain a travel time advantage over those vehicles in the regular lanes. Research has indicated that on a typical congested freeway with three mixed flow lanes and one HOV lane in each direction (the cross-section of a possible ultimate facility in this corridor) some 15 percent of the vehicles will use the HOV lanes. The capacity of a single HOV lane is in the range of 1600 vehicles per hour (less than a mixed flow lane, because no passing can take place). However, the person-carrying capacity of those lanes is substantially greater than for a mixed-flow lane. The person-carrying capacity of an HOV lane in this corridor would be in the general range of 4,000 persons per hour, nearly twice the capacity of a mixed flow lane.

The corridor alternatives analyzed in this EIS/EIR are not predicted to be congested in year 2025 if built to the design concept presented in Chapter 2.0 (Alternatives). This means that the incentive for use of the HOV lanes will be less than a typical congested facility, and the utilization of the HOV lanes may be lower than on such a congested facility. The actual usage of the lanes is highly dependent on the amount of congestion on the mixed flow lanes and cannot be easily predicted at this point. However, the HOV lanes are still an important concept to maintain traffic flow for carpools and express transit vehicles in the event of construction, maintenance, traffic incidents, and other potential congestion-causing incidents. Provisions will be made in the ultimate design concept for HOV enforcement areas, HOV lanes at on-ramps, and other operational features supporting Transportation Demand Management. Ridesharing and transit coordination and incentives are expected to be continued by RCTC and Caltrans in support of both the existing and future highway and transit systems. Park-and-ride lots will be a consideration in the design of the facility as well. Potential locations will be assessed in the Tier 2 engineering and environmental studies.

There are viewed to be no differential benefits or impacts among the alternatives on the basis of TDM considerations. Provisions for TDM can be made for any of the alternatives. The amount of carpooling associated with a particular alternative will tend to be correlated to the total traffic volume on the corridor. A value of 15 percent of the total peak hour volume would be a reasonable estimate of the number of vehicles that may use the lanes in the peak hour. The number of persons accommodated can be estimated by multiplying this number by 2.3 to 2.5 (assuming that the HOV lanes allow for 2+ persons per vehicle).

4.15.3.3 Goods Movement

Serving existing and future employment centers is an important purpose of the proposed transportation improvements. The ability to provide improved access for trucks goes hand-in-hand with that need. While no special lanes are anticipated for trucks in the design concept, the improvements in access and mobility will benefit trucks just as with automobile travel. The statistics previously presented on changes in VMT, VHT, average speed, user benefit, and travel time are good representations of the potential benefits to goods movement as well. The better alternatives for trucks will be the ones

that have the greater reductions in VHT, greater increases in average speed and user benefit, and greater reductions in travel time.

The value of time for trucks is considerably higher than for commuters, and is often considered to be 2.5 to 3 times greater than for auto travel. Therefore, the time-related benefits of an alternative would tend to be placed on even a higher level by the trucking industry and commercial interests than for the average motorist. Improved travel time has additional economic benefits for goods movement as well, such as the ability to better control the size of the truck fleet. Faster delivery times means that the same number of deliveries can be made with fewer trucks and fewer personnel.

Another function of the alternatives being considered in this EIS/EIR is to keep trucks off of roadways designed to accommodate mainly local traffic. The proposed alternatives are designed to facilitate truck movement and will provide benefits to local roadways by limiting the tendency of those facilities to be used for through truck movement. The extent to which this may occur can be assessed from the tables presented previously in Section 4.15 on changes in traffic volume, volume/capacity ratio, and level of service for existing roadways that parallel the proposed alternatives.

4.15.4 Potential Mitigation Measures to be Considered in Tier 2

At the Tier 1 analysis level for preservation of corridor right-of-way, no substantial circulation impacts are identified; therefore, no specific mitigation is required at this level. Specific mitigation measures associated with the selected alternative will be defined as part of Tier 2 environmental studies. The construction of the selected alternative for the HCLE Corridor is likely to be phased over time. It could begin with a surface roadway, with at-grade intersections and traffic signals, and continue with the construction of interchanges, as traffic volumes and operational requirements warrant. The construction of a major facility along one of the alternative routes will tend to increase traffic on roadways feeding that facility, including roadways at the terminal points of the corridor. The proposed General Plan for the County of Riverside identifies roadways being planned in the Circulation Element. The proposed Circulation Element roadways have been sized to accommodate the possibility of intersecting or interchanging with the alternatives in the HCLE Corridor.

A second issue of concern has to do with access to existing or future abutting properties. An ultimate freeway-type corridor will typically allow for interchanges at a spacing no closer than one mile. Frontage roads and/or other supporting networks of access roadways will be needed to provide for local access to this ultimate facility. This may require a reorientation of the access to and from existing properties. Sufficient right-of-way is being identified in the bandwidth for the various alternatives to allow for these access issues to be resolved. The actual resolution of the access issues and associated mitigation will take place in the Tier 2 engineering and environmental studies.

Certain alternatives may create construction impacts on existing roadways that would require transportation management plans to ensure that operations and safety are maintained while construction is occurring. Mitigation for these types of impacts and preparation of plans for maintenance of traffic will be identified in the Tier 2 studies.