COUNTY OF EL DORADO
DEPARTMENT OF TRANSPORTATION

INTEROFFICE MEMORANDUM

Date: October 21, 2005

To: File

From: Craig McKibbin, Senior Traffic Civil Engineer

Subject: Fee Program Project Lists – Roads with 1,000 Peak Hour Trips

In reviewing the improvement projects generated through Fehr & Peers traffic modeling efforts (Memo to Steve Borroum from Ronald Milam, March 18, 2005) and comparing those improvements with ongoing Department of Transportation (DOT) projects it became apparent that several candidate projects where not being supported by the traffic modeling effort. These projects were typically small projects to construct left-turn pockets at mainline uncontrolled intersections or construction of two-way left turn lanes. Since these projects improve traffic flow by removing vehicles stopped to make left turns from the through lanes, they have the effect of increasing the capacity of a road.

To determine a "benchmark" for the inclusion of these types of projects into the fee program, the Department reviewed the traffic volumes at those locations were there are currently ongoing left turn improvement projects. An additional source of information was those areas where the Department has received a significant number of requests for left turn facilities. A review of published information sources such as the "Highway Capacity Manual" was also conducted.

Based on these reviews, it was determined that a benchmark of 1,000 peak hour trips on the mainline road, counting both directions, was an appropriate starting point. The attached tables are highlighted with various colors to show which road segments would exceed this trip rate as an appropriate starting point.

Those road segments highlighted in yellow are those roads over the 1,000 figure but where an improvement above just left turn improvements is planned. An example is a two lane road being improved to a four lane road.

The road segment highlighted in orange is the new Missouri Flat Road Connector project. This new road is forecasted to be over the 1,000 figure but since it is a new road it was determined that left turn improvements would be included in the project design and hence its cost estimate.

Those road segments highlighted in red are those roads over the 1,000 figure but where no improvements beyond left turn improvements were planned. These then became the roads that the Department reviewed on a more comprehensive level for actual locations of pockets, width issues, etc.

The further refinement process included field reviews, aerial photo reviews, etc. to determine the need and extent of improvements that might be needed. Locations that had cross streets or driveways that are used very infrequently were dismissed as unnecessary due to capacity needs and therefore ineligible for the fee program. Other locations that are more well used and are separated by significant distance were targeted for left turn pockets. In those areas, primarily in business and commercial districts, where the spacing of individual turn pockets would overlap, a two way left turn lane was called out in the project list.

In a couple of unique segments, it was determined that the issue was one of passing slower traffic, not one of left turn movements blocking traffic. These were higher volume roads where there are few driveways, typically in the very rural areas of the County. In these cases an additional lane for passing was included. An example is the section of State Route 49 coming out of the canyon of the North Fork of the American River towards Cool. Truck climbing lanes/passing lanes are listed in the project list for this segment.

A final “reality check” was made using internal staff reviews before any of the projects were included in the final project lists. Once it was determined to include the project then its cost was estimated and rolled into the fee program.

CDM:cdm

Attachments

pc: Steve Borroum, Acting Deputy Director, Trans. Planning (no attachment)