

COMMUTING TAKES ITS TOLL

by Jo Ann Lloyd

How much would it be worth to you to shave 10 to 20 minutes off your commute to and from work each day?

That's a question for thousands of Orange County commuters who now have the option of driving on a private toll road that is considerably less congested than other parallel routes.



Private toll lanes on SR 91 in Orange County provide a real-world laboratory for assessing public willingness to pay for a less congested commute.

With the help of Cal Poly students, Ed Sullivan, chairperson of the Civil and Environmental Engineering Department, is leading a three-year study to find out how many commuters are willing to pay premium tolls to bypass congested urban freeways. He is also interested in the effect this has on the rest of the transportation system.

The study is being done through Cal Poly's Applied Research and Development Facilities and Activities transportation research group, with almost \$1 million from Caltrans and the U.S. Department of Transportation.

Called the State Route (SR) 91 Express Lanes, the four-lane highway — two lanes in each direction — is built in the median of an existing eight-lane freeway between Anaheim and the Riverside County line. This eight-and-one-half-mile stretch is the first privately built and operated modern-era toll road in the country, and one of just a few worldwide that charge variable tolls. The greater the traffic delays on the adjacent freeway, the higher the toll. The toll varies from a low of 50 cents in off-peak times to a high of \$2.75.

This "value pricing" allows the California Private Transportation Company (CPTC) to charge higher tolls to keep the traffic moving freely, even during the busiest times.

CPTC operates the toll lanes on land leased from the state and has 35 years to make a profit. After that time, the lanes become state-operated.

Since the study began two years ago, approximately 25 Cal Poly students have helped assess the impact of the toll lanes and determine if this travel option would be a viable alternative elsewhere for commuters and investors alike. Report conclusions will appear this December.

Initial findings suggest the toll lanes are a success, with 25,000 to 30,000 cars clocked each week-day. The increased traffic capacity from adding the four lanes has greatly reduced peak-period congestion on the adjacent public freeway.

And commuters, at first skeptical about the varying tolls and the private, for-profit nature of the toll road, are coming to accept the system. Although early concern was raised that the premium toll road would become "Lexus lanes," findings show that the use patterns of high- and low-income commuters are not dramatically different.

The roadway itself is a high-tech facility. Because there is no room for conventional toll booths, money is collected by means of "transponders" mounted on a vehicle's windshield or dashboard. The transponders allow an overhead structure equipped with special electronics to identify each vehicle that passes beneath it and debit the toll charge from the appropriate account.

Other advanced technology is used to help catch individuals who do not have "legal" transponders or who might otherwise be in violation of the law. Cameras mounted in an overhead structure can take pictures of vehicles and their license plates so their owners can be identified.

Yet even with all this computerization, there is still the need for a human touch.

A "spotter" booth houses an employee who checks vehicle occupancy and reports on other aspects of the lanes and vehicles.

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