

# SmartMove...

## SUCCESS STORIES FROM THE TOLLING INDUSTRY



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### Agency

San Diego Association of Governments (SANDAG)

### Project

Interstate 15 Express Lanes Reconstruction and Expansion

### Purpose

To provide a wider choice of mobility options for customers along one of the busiest commuter and freight corridors in the United States.

### Vital Stats

- 300,000 daily trips;
- 20-mile express lane facility;
- First dynamically priced tolling system in the United States; and
- Project completion in 2012, under budget and one year ahead of schedule.

### History

With average traffic volume above 300,000 trips per day, San Diego's interest in managed lanes dates back to the late 1990s, when the region introduced express toll service along an eight-mile section of Interstate 15 (I-15). The project was so successful that taxpayers voted to expand it in 2004. The 20-mile I-15 Express Lanes opened for transit, carpooling, and toll-paying customers in 2012, a year ahead of schedule and slightly under budget.

Opinion surveys consistently show high levels of public support for the lanes, across all income levels, ages and ethnicities.

The expanded facility offers 24-hour service, seven days a week. Along 16 of the 20 miles, four express lanes feature a movable barrier that allows for dynamic lane reconfiguration. The region can use the barrier either to

balance north- and southbound traffic, or to respond to traffic incidents by reconfiguring the lanes from a 2 x 2 configuration to a 3 x 1 in either direction.

Traveler choice is essential along I-15, the only inland north-south travel route in California. The road is an essential access point for major employment centers and post-secondary education, and for regional, national, and international freight traffic. To support a multimodal sustainable transportation strategy and boost the competitiveness of regional transit services, the facility includes direct access ramps (DAR) for one existing and four new transit hubs.

The system accommodates 100 new transit vehicles and will allow buses, carpoolers, and paying customers to enter the express lanes without crossing over five lanes of general-purpose traffic. To make the express lanes a viable choice for all of the communities along the corridor, the express lanes include 18 intermediate access points for customers entering the facility directly from the general-purpose lanes.



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### Results

Since the expansion, traffic along the express lanes has tripled, to an average of 60,000 vehicles per day. Use of FasTrak electronic toll transponders has increased, but drivers have been even quicker to embrace carpooling as a way to use the express lanes at no cost. The lanes have also made transit services more reliable and predictable, leading to a steady increase in ridership. Since the early 2000s, toll revenues have enabled SANDAG to allocate approximately \$1 million per year to improve transit services along the corridor and offset the need for fare increases.

The express lanes were the first toll facility in the world to use a dynamic pricing algorithm, where toll rates adjust automatically based on traffic levels and speed. While the expanded facility still uses dynamic pricing, the algorithm has been modified to support the variable trip lengths that customers can now make. Based on the dynamic rate, users might pay as little as \$0.05 per mile for a short trip, or \$1.00 per mile under peak conditions. SANDAG has adopted policies that provide for a minimum charge of

\$0.50 per trip and a cap of \$8.00. The facility uses variable message signs at entrances to the facility to communicate trip prices and estimated travel times.

The lanes are performing well, even with higher peak travel volumes. Customers are paying an average of \$1.25 per trip this calendar year. SANDAG will continue to look at adjustments to its pricing algorithm to optimize mobility along the express lanes while ensuring adequate revenue to cover costs.

SANDAG and the U.S. Department of Transportation are also working on an Integrated Corridor Management (ICM) program to improve coordination, data sharing and use of advanced predictive technology between the state transportation agency, Caltrans and the cities of San Diego, Poway and Escondido. The I-15 corridor was selected as one of two pilot sites in the nation to develop, implement and operate an ICM system, and SANDAG is working on a mobile application to offer real-time traffic and toll price updates and other trip planning features.

### Key Success Factors

“Facilities like the I-15 Express Lanes can provide significant transportation value by improving mobility and promoting choice,” said SANDAG Director of Operations Samuel Johnson. “We can’t build our way out of congestion, so the question becomes how to move more people with what we have and key answers to that question include ride-sharing and transit. We want all our modes to improve, but we recognize that sustainable modes such as transit have a big role in our future.”

The SmartMove series highlights innovative and proven solutions to funding and maintaining transportation infrastructure. Visit [www.IBTTA.org/MAF](http://www.IBTTA.org/MAF) for more IBTTA member SmartMoves.

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1146 19th Street, NW, Suite 600  
Washington, DC 20036  
(202) 659-4620

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