

Washington State DOT SR-167 HOT Lanes



ETC implemented HOT lanes and dynamic pricing for WSDOT's SR-167 HOT Lanes Pilot Project.

Advanced Toll Solution
Powered by RITE
Lane and Facility Systems

Systems Maintenance
Remote Maintenance Team

Innovative Solutions
High Occupancy Toll Lanes
Dynamic Pricing
Phased, Seamless Transition Plan

In the first quarter of 2007, the Washington State Department of Transportation (WSDOT) selected ETC to provide the High Occupancy Toll (HOT) Lane, Dynamic Pricing solution for the SR-167 HOT Lane Pilot Project. This technically advanced and industry-leading project converted the existing two lanes of High Occupancy Vehicle (HOV) lanes to HOT lanes and has improved travel efficiency in the corridor while providing more options to individual travelers. SR-167 is an important transportation route in the Puget Sound area. The HOT Lanes Project extends approximately nine miles between Renton and Auburn, Washington.

At the heart of the project is the formula-driven, predictive RITE[®] Dynamic Pricing Module that calculates the appropriate toll rates based on the level of service in the adjacent general-purpose lanes, as well as the amount of traffic present in the HOT lanes.

Significant Goals of the SR-167 HOT Lanes Pilot Project. WSDOT identified several important objectives to be achieved by the four-year SR-167 HOT Lanes Pilot Project. These include:

- Increase efficiency of the existing roadway
- Improve the traffic flow and travel times along the SR-167 corridor
- Achieve and maintain an acceptable level of service for HOV traffic in the HOT lanes
- Implement proven toll systems technology with the power and flexibility to incorporate dynamic pricing methodology
- Leverage WSDOT's existing intelligent transportation systems

The HOT Lanes opened May 3, 2008, and provide toll-free, express trips for transit vehicles and carpools and also allow single-occupant vehicles that pay a toll to use the lanes when there is capacity for additional vehicles. The HOT lane solution is based on ETC's proven open road tolling (ORT) architecture that provides electronic toll collection at highway speeds.

Using ETC's RITE Dynamic Pricing Module, tolls are used to keep traffic in the HOT lanes flowing at 45 mph or faster, even when the general-purpose lanes are congested. The toll rate increases or decreases depending on the space available in the HOT lane. During the initial phases of the operation, the toll rate ranged from \$0.50 to \$9.00. Because of the flexibility of the Dynamic Pricing Module, WSDOT was easily able to make adjustments to these rates based on the actual operational experience. In 2009, the maximum toll paid was \$4.50.

At the end of the first year of operation, over 30,000 customers had paid to use the HOT Lanes. The first annual performance report indicated significant increases in volume as well as speed, demonstrating the positive effect of the HOT lanes on higher vehicle throughput and reduced congestion. Further information as well as current performance reports can be found on the WSDOT Web site: <http://www.wsdot.wa.gov/Tolling/SR167HotLanes/default.htm>.