SMART FREEWAY PILOT PROJECT

OVERVIEW:

The Riverside County Transportation Commission (RCTC), in partnership with Caltrans and the City of Temecula, has implemented innovative technology along the northbound I-15 in Temecula and Murrieta that is anticipated to improve traffic operations and enhance travel time reliability for drivers.

Severe congestion occurs along northbound I-15 from the San Diego/Riverside County Line in Temecula to the I-15/I-215 Interchange in Murrieta. High volumes of vehicles enter the freeway at Temecula Parkway, Rancho California Road, and Winchester Road on-ramps, particularly during peak afternoon and evening hours.

The project includes an eight-mile segment between the County Line to the I-15/I-215 split. The segment is equipped with advanced sensors and intelligent transportation system features that continuously analyzes real-time traffic conditions using tire sensors to determine traffic volumes, speeds, and travel times.

When the system is active, adaptive ramp meters will function as a coordinated system, adjusting in real time to allow more or fewer vehicles to enter the freeway. This approach is designed to improve mainline traffic flow, reduce stop-and-go conditions, and enhance travel time reliability. Digital message signs will display recommended speeds and travel alerts along northbound I-15 to help maintain steady traffic flow and improve safety.

While drivers may initially experience delays at on-ramps, the system is expected to result in overall time savings, fewer stops, and smoother travel along the corridor. The system collects traffic flow data only and does not capture photographs, issue tickets, or collect personal information. This project will be evaluated over a two-year pilot period to determine its effectiveness and potential for broader implementation.

Key Features and Benefits

- **Traffic Flow:** Innovative technology will monitor and manage traffic flow with ramp meters that adapt to freeway traffic conditions and dynamic messaging signs to provide drivers with recommended speed limits and travel speed cautions.
- **Safety:** Rear-end collisions are expected to decrease with fewer stops and starts.
- **Economic Development:** Time savings, fuel efficiency, and fewer collisions will offer sustainable economic benefits to commuters, tourists, and goods movement.
- **Cleaner Air:** Air quality will improve by reducing the number of idling vehicles.
- **Mobility Options:** Greater travel time reliability and safety will enhance on-time service of the Riverside Transit Agency's CommuterLink Express Route 206, which connects to job centers along the I-15 corridor.
- **Lower Cost:** Smart Freeways offer a long-term solution within the existing highway footprint at a fraction of the cost of building more lanes. The project will be compatible with existing Caltrans ramp metering, allowing the system to remain in place beyond the two-year pilot period.
- **Performance Monitoring:** A public dashboard will provide updates to track overall system performance, including congestion reduction, travel time reliability, and operational effectiveness.

RCTC and Caltrans will evaluate the project throughout the two-year pilot period to assess its effectiveness on traffic congestion, safety, and travel time reliability, and to determine possible expansion of the program statewide.

For more information, visit **rctc.org/smartfreeway**

LOCATION:
Northbound Interstate 15 from the San Diego/Riverside County Line in Temecula to the I-15/I-215 Interchange

ENGINEERING/ ENVIRONMENTAL STUDIES:
Completed late 2023

CONSTRUCTION:
Completed

PILOT PERIOD:
May 2026 - May 2028

INVESTMENT:
Estimated $33 million (total cost)