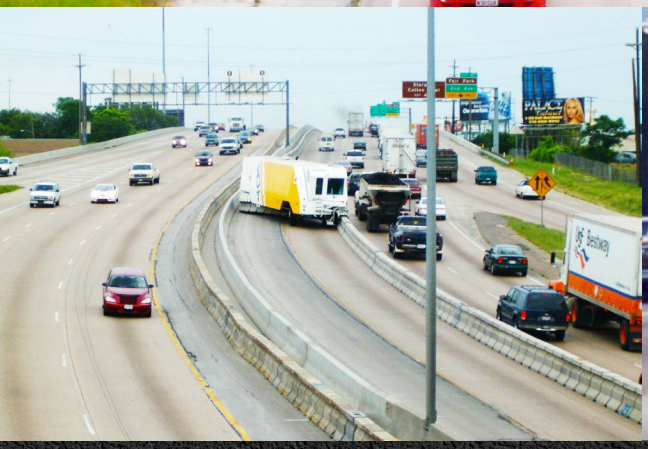
LINDSAY™ | MANAGED LANES CASE STUDY

Interstate 30

Dallas, TX | Contraflow Application



ROAD ZIPPER™

Interstate 30

CASE STUDY
FOR MANAGED LANES

Dallas HOV Facility Moves More Cars, Cuts Commute Times

The East R.L. Thornton Freeway, opened in May 1966, is a major eight-lane radial freeway that primarily serves commuters destined for the Dallas central business district. It was experiencing recurring congestion during both peak commute periods. Average speeds were falling below 30 mph for extended periods of time in the morning and evening commute.

The Texas Transportation Institute (TTI) researched the feasibility of High Occupancy Vehicle (HOV) alternatives for a number of corridors in the Dallas Area Rapid Transit (DART) District and found the safest option was barrier separated lanes. It was decided that the IH-30 roadway geometry and traffic patterns best suited the use of the moveable barrier technology, due to the major congestion in the peak direction and spare capacity in the opposite direction. The moveable concrete barrier would also provide the safety of physical separation of opposing traffic f lows making the HOV lane accessible to carpools. Ground was broken for the new HOV lanes in December of 1990 and ten months later, in September of 1991 the first contraflow HOV facility in the world, to use the Quickchange® Moveable Barrier (QMBTM) technology, was officially opened. Twice a day 8.5 miles of barrier weighing over 20 million pounds is transferred, from a minimum of 11 feet to a maximum of 22 feet, to create an additional lane for commuters into and out of Dallas five days a week.

As early as April 1992, use of the HOV lane was exceeding expectations with 15,500 commuters using it daily and 4,000 during the peak hour. HOV users were saving 9 minutes in the morning and 4.5 minutes in the evening. This single lane is carrying nearly double the personcarrying capacity of a freeway main lane. Average peak hour main lane speeds increased by 86%, from 22 to 41 miles per hour. Bus passenger volumes increased by 38% in the I-30 corridor and carpools increased by 300% in the morning peak hour from 600 to 1,800 cars.

The success of this moveable barrier technology on this facility has prompted DART and TxDOT officials to extend the evening HOV lane another 1.7 miles. Due to this project's success, TxDOT is in the process of extending this HOV lane 5 miles east to IH-635. Improved air quality, reduced travel time and congestion, and increased safety for motorists has resulted from TxDOT's leadership in making these essential improvements.

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