



I-95/I-395 Integrated Corridor Management (ICM) Initiative

This study will develop an Integrated Corridor Management (ICM) project definition and concept of operations for the I-95/395 corridor between Fredericksburg and the 14th Street Bridge. The ICM strategy will address multi-modal commuting and through traffic issues in the corridor, including comparative auto, carpool, rail and bus options as well as connectivity between these modes in order to make the fastest and safest possible trip. Innovative technologies will be identified that facilitate travel in the corridor from a multi-modal perspective. Information related to travel times and parking will be provided, and tools to enhance capacity such as hard shoulder running and other active traffic management schemes will be addressed.



To fulfill the stated goals of the Governor’s office--mobility, safety, and economic vitality for the corridor -- the end results of the ICM deployment would be expected to achieve the following, at the minimum:

- Promote different travel options to achieve both travel time savings and overall environmental benefits for the community
- Reduce travel time and congestion by managing travel demand in real-time
- Reduce the economic cost of travel delays and congestion in the corridor (from the commuter, business and freight movement perspectives)
- Reduce or eliminate primary or secondary incidents through countermeasures like Q-Warning, dynamic lane merge, ramp metering, etc.
- Specific volume reduction of 1800 vehicles per day on particularly congested days, targeted for travelers to the Mark Center complex in Alexandria



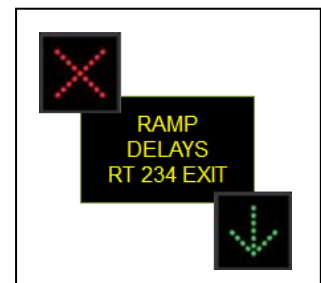
ICM provides an integrated approach to transportation management, emphasizing all travel modes within the corridor. ICM utilizes technologies that range from regionally-based solutions that compare available travel options using real-time information on a day-to-day basis, to providing specific options that are appropriate as a result of incidents, weather or scheduled special events.

Expected components will include the following:

- Real-time information signage on I-95, I-395 and approach routes, including available park-and-ride space availability and comparative travel time information for I-95/395, alternate routes, and transit (rail and/or bus)
- Integrated corridor traveler information services, providing a one-stop shop (both for web and mobile access) for traveler information for drivers, transit users (providing next bus / train information for all carriers based on user location and destination), rideshare (car and vanpool) and slugline users
- Improved alternative arterial route operations, including traffic-adaptive signal control, traffic signal priority for express buses, and optimized operations to reduce or eliminate back-ups on ramps or approaches to signalized junctions between I-95, I-395 and arterial routes.
- Hard Shoulder Running and dynamic traffic management in specific route segments as a tool to reduce bottlenecks and increase capacity on existing facility, with the initial focus being on I-395 south of Duke Street and on I-95 in northern Stafford County south of the proposed HOT Lanes terminus. Providing advance warning of traffic backups and lane closures will assist in reducing rear-end and secondary crashes.
- Add ramp metering at selected ramps along I-95 and enhance existing ramp metering on I-395 to respond more quickly to real-time conditions
- Enhanced traffic flow and incident management throughout the corridor, including incident detection.



**Conceptual Real-Time
Signage Examples**



The current transportation management system (TMS) elements at the McConnell Public Safety and Transportation Operations Center (PSTOC) in Northern Virginia will incorporate real-time repository of traffic, transit and parking management information that will assist in providing safe, smooth and reliable operation of the proposed ICM components and thus improve travel time and safety for all travelers in the corridor.