



South Carolina Department of Transportation

**Introduction Of  
Managed Lane Facilities  
Within I-26 Corridor**

**Work Plan**



## **Background**

The greatest impact of congestion-related delay measured in South Carolina in 2005 was identified in the state's Berkeley-Charleston-Dorchester region. The 21.95 mile corridor from US-17A at Summerville, SC to US-17 in Charleston, SC has a current LOS of 'F' based on the most heavily traveled section(s) of the segment, and accounts for the highest level of congestion in the state when comparatively based on overall corridor line-haul length. The region is also at risk of falling into air quality non-attainment status under the proposed new standards put forth by EPA.

The portion of this corridor from the US-52 Connector to I-526 is scheduled for widening, while portions towards Summerville and Charleston are currently identified as unconstrained widening projects in the state's Interstate Plan. However, future improvements to highway capacity are impacted by severe right-of-way constraints

Initial analysis has been conducted on a statewide basis to insure that potential HOV facility projects are identified in regions with the highest levels of congestion, and in areas where they may be more easily implemented on limited access highway facilities. This is the case along the I-26 corridor from Summerville to Charleston.

## **Process**

The process for introducing HOV on I-26 will be a three-phase process. This work will be conducted jointly by staffs of the South Carolina Department of Transportation (SCDOT), Berkeley-Charleston-Dorchester Council of Governments (BCDCOG), and CARTA.

### Feasibility Analysis

The first phase involves determination of initial feasibility through traffic analyses and travel demand modeling. This analysis will involve measurements of current and projected levels of congestion along the corridor, identification of travel patterns, vehicle demand by mode and vehicle type, and person demand (for rideshare and transit service), and potential impacts/benefits to adjacent general purpose lanes.

HOV thresholds will be determined to identify the minimum usage at which the adjacent general purpose lanes will not be unduly degraded. However, general thresholds supportive of HOV use have already been met along the I-26 corridor. These include:

- Speeds below 35 and/or V/C ratio of 1.0 or greater;
- Periods of congestion lasting two hours or greater forecast for horizon year;
- Congestion identified along successive corridor segments

The feasibility analysis will further identify the number of automobiles needing to be removed from the corridor to avoid degradation in levels of service for the remaining general purpose lanes, and identify the degree to which ongoing local actions and initiatives, such as ridesharing, van pooling, or transit, need to be enhanced. The initial feasibility

analysis will be conducted by SCDOT and BCD COG through their current mode-split update to the regional travel demand model.

### Environmental Analysis

Upon concurrence from FHWA with the results of the feasibility analysis and identification of necessary HOV thresholds, the second phase of the three-phase process involves environmental analyses and documentation sufficient for a Federal finding. The final traffic and travel demand analysis report will be utilized here. Because the introduction of HOV on I-26 would involve the conversion within existing ROW of an existing general purpose lane for HOV use, as opposed to the acquisition of new ROW or significant construction activities, it is highly likely that this project will be categorically excluded from the conduct of either a full Environmental Assessment or Environmental Impact Statement. The costs associated with this phase will therefore be minimized. Once this phase culminates in a positive environmental finding from FHWA, the project will move into construction.

### Design and Implementation

The third phase is design and construction, with two components: facility construction, to include lane marking/re-striping and signage, and surface park-and-ride facilities. Because the introduction of HOV on I-26 would involve the conversion within existing ROW of an existing general purpose lane for HOV use, as opposed to the acquisition of new ROW or significant construction activities, implementation and any construction activities will mainly involve lane marking/re-striping and signage. Accommodations also need to be made for park-and-ride facilities at key locations throughout the corridor. Property acquisition costs related to surface parking facilities will be minimized where possible by utilizing existing SCDOT ROW or potential joint-use agreements.

Issues of HOV enforcement along the corridor will also need to be addressed with appropriate law enforcement agencies.

### Public Outreach

A key component throughout all phases of the project is the conduct of a comprehensive public outreach effort. This will be a multi-faceted approach that will involve meetings with the following stakeholders:

- Elected officials and senior management of affected local jurisdictions;
- Business leaders, including local chambers of commerce;
- Developers and business interests along the corridor; and
- Local environmental and community groups.

Meetings with the general public are also planned to solicit their feedback, concerns, and questions. A series of meetings at multiple locations along the corridor is proposed during the various phases of the project. Along with the public meetings, surveying techniques will be employed to measure the support from the general public and business interests for the project as it is to be designed. Recommendations for alternatives will also be accepted and reviewed as appropriate. Recognizing the potential environmental benefits, SCDOT will

work with the South Carolina Department of Health and Environmental Control throughout all phases of the project, focusing on education and outreach in support of HOV use.

### **Total Project Cost**

The feasibility analysis, environmental documentation, construction and public outreach, are estimated in total to cost approximately \$4,000,000