

Beltway Connections

Newsletter of the Maryland Capital Beltway HOV Study

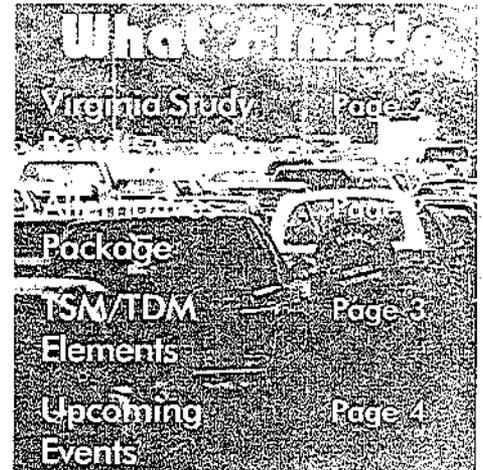
August, 1997

Background

In the early 1990's, the Maryland State Highway Administration (SHA) initiated a High Occupancy Vehicle (HOV) Lane feasibility study. With severe right-of-way restrictions due to extensive residential and commercial development along the Beltway, transportation improvement options were limited. HOV lanes are viewed as a method for maximizing the value of extra lanes because they are able to move more people in fewer vehicles than the typical travel lane.

In November, 1993, the US Department of Transportation published a new set of planning regulations in response to federal legislation. These regulations required transportation officials to consider a wide range of modes as ways to address transportation problems. As such, the Beltway study expanded to include Transportation Systems Management (TSM), Transportation Demand Management (TDM), and transit alternatives. Each of these alternatives are being developed and will be evaluated against the problems identified and the performance criteria established for the Beltway corridor.

Though the scope of the study changed, the study name did not. Transportation officials left the name the same in order to indicate that only HOV lanes are being considered as potential major highway improvements. The study is not considering adding travel lanes for general purpose use. There are two key reasons for not pursuing additional general purpose lanes. First, travel demand projections indicate that without increasing the ratio of passengers to vehicles, two additional lanes will simply not be enough to meet the long term demand for the Beltway corridor. Second, the Washington region is faced with a serious air quality condition. Metropolitan areas with similar conditions to those in Washington are required to significantly reduce the air pollutants contributed by automobile emissions, the principal offending component to the air quality dilemma. Those areas with transportation plans and programs which fail to meet air quality standards face withholding of federal transportation dollars.



Project Update: Additional Transit Analysis Underway

The Maryland State Highway Administration (SHA) and the Mass Transit Administration (MTA) are working together to develop highway and transit alternatives to improve travel along the Capital Beltway. The study will develop alternatives and determine their associated impacts in order to make informed transportation decisions.

Formal public meetings were held most recently in December 1996 to provide the public an opportunity to review and comment on the alternatives. Since the public meetings, the project team has continued to develop the alternatives and further refine the information previously presented.

Currently, a work effort is focusing on further developing the mass transit alternative. This rail transit option would provide a complete loop around Washington, D.C. either inside or outside the Beltway. The transit alignments do not follow the Beltway. These are new route locations that will be analyzed to determine performance and potential impacts. The project team anticipates holding another set of public meetings where the initial transit study findings will be presented.

Upcoming Newsletters

The Capital Beltway HOV Study is investigating four alternatives. They are:

Alternative #1 - Base Case

Alternative #2 - Transportation System Management (TSM)/
Transportation Demand Management (TDM)

Alternative #3 - High Occupancy Vehicle (HOV) Lane

Alternative #4 - Transit

Each of these alternatives will be featured in upcoming newsletters. This newsletter focuses on the Base Case and the TSM/TDM alternatives.

Alternatives Packages Under Study				
	BASE CASE	TSM/TDM	HOV	TRANSIT
OPTIONS	CLRP*	CLRP*	CLRP* Concurrent Flow Barrier Separated SOV Toll	CLRP* Circumferential Rail Express Bus In Line Bus Service
ENHANCEMENTS**	N/A	<ul style="list-style-type: none"> • Ramp Metering • Improve Parallel Road Network • Safety/Design Improvements • Enhanced Bus Transit 	<ul style="list-style-type: none"> • Incident Management • Traveler Education • Traveler Information • Truck Restrictions • Enhanced Enforcement • Park and Ride 	

*Improvements contained in Maryland's constrained Long Range Plan

**TSM/TDM improvements which could be implemented independently or combined with other options

VA Study Completes First Stage

The Virginia Department of Transportation (VDOT) has recently completed the Major Investment Study (MIS) for its portion of the Capital Beltway. Maryland and Virginia have been coordinating their respective Beltway studies. The recommended results are documented in the MIS Results Report, *The Framework for Beltway Improvements*. Two strategies showed the most promise in Virginia: adding HOV lanes to the existing system and reconfiguring the Beltway into an express/local operation. These options were shown to have the most potential of reducing the hours of congestion in the corridor, increasing the operational effectiveness of the Beltway, improving safety, and meeting other transportation needs. VDOT will advance these strategies into the preliminary engineering phase where specific improvements, a construction phasing approach, and other information needed to begin implementation will be developed. For additional information, call 703-359-MOVE.

The Virginia General Assembly recently passed legislation requiring VDOT's Department of Rail and Public Transit (VDRPT) to complete a study on the potential of "circumferential rail" in Northern Virginia. This study is expected to begin in late Summer 1997.

Alternative #1 - The Base Case

The Base Case, sometimes known as the No-Build option, includes all projects in the FY 1996 Constrained Long Range Plan for the Washington region. It also includes normal maintenance and safety improvements. This option will serve as the basis for comparison of all other alternatives.

Alternative #2 - Beltway Transportation System Management (TSM)/Transportation Demand Management (TDM) alternatives

TSM refers to the transportation infrastructure itself. The goal of TSM is to optimize the existing transportation system with minor improvements to allow for maximum operation. Typical TSM improvements consist of adding turn lanes at signalized intersections, geometric improvements at interchange locations to allow for better acceleration and deceleration lanes, etc. TSM are improvements that can be made at a relatively low cost.

TDM refers to drivers and their behaviors. The goal of TDM is to reduce the demand on the system by getting drivers to change their time of travel, their route of travel or their mode of travel.

The TSM/TDM alternatives can be developed as "stand alone" or "in combination" with the other alternatives. The final combinations of the TSM/TDM elements could change depending on their effectiveness when considered with other alternatives. For example, the location of park and ride lots would be different if coupled with the transit alternative as opposed to the HOV alternative. The general reason being the size and location of the facility and the need it serves would be different.

Beltway TSM/TDM Elements Under Consideration

TSM Elements

Ramp Metering

Ramp Metering consists of placing a modified traffic signal on interchange entrance ramps to control the rate at which vehicles are allowed to access a freeway. The purpose of regulating access is to control and optimize the rate of freeway traffic flow. By regulating access during peak periods, the overall flow of traffic is smoother and more vehicles per hour can be accommodated on the freeway.

Improved Parallel Roads

Though there are few state, county and local roads that parallel the Beltway, there are a few that provide some of the same connections or allow a driver to avoid the Beltway altogether. This study will first identify potential segments that affect the Beltway. Then recommendations on smaller improvement types to better handle these local traffic situations will be made. Types of improvements include adding a turn lane at signalized intersections, coordination of traffic signals, and rephasing of traffic signals. The study does not include major improvements on these facilities such as roadway widening.

Safety/Design Improvements

The study of these elements is being coordinated with the Capital Beltway Safety Team and includes their recommendations as well as other ongoing projects. Examples of the types of safety improvements being investigated are as follows:

- Interchange reconfigurations to remove loop ramps with short acceleration and deceleration lanes such as the proposed Georgia Avenue (MD 97) improvements and the recently completed Annapolis Road (MD 450) improvements. These strategies remove difficult weave areas, thereby making these locations safer as well as providing better operations.
- Improve roadway signing and marking to make them more consistent and easy to follow.

Truck Restrictions

Continue to support current truck lane restrictions.

Enhanced Enforcement

- Provide room for accident investigation sites along the Beltway.
- Provide enforcement areas in order to allow for safe havens for officers to pull over violators (reduces "rubber-necking.")

TDM Elements

Park and Ride Lots

The project team will:

- Work with state and local agencies to locate new lots.
- Evaluate existing lots to see if expansion is required and feasible.
- Evaluate existing lots to see why usage is low.
- Provide transit connections to park and ride lots.

Enhanced Bus Transit

- Additional bus routes that utilize the Beltway are being considered. Also, bus service would work with the HOV alternative.
- Provide connections between suburban-to-suburban activity centers.

Incident Management

This element is being coordinated with the Capital Beltway Safety Team, MD State Police, and Chesapeake Highway Advisory Routing of Traffic (CHART) to further enhance management of accidents, disabled vehicles and other incidents. CHART is comprised of four basic components:

- Surveillance
- Incident Response
- Traveller Information
- Traffic Management

CHART uses a balance of high and low technology to improve "real time" highway operations.

Traveler Education

- Continue to support public education programs such as "Share the Road with Trucks"; "How to Drive the Beltway."
- Expand these programs to include HOV driving conditions.

Traveler Information

- Enhance the variable message signs (VMS) and traveler advisory radio.
- Provide current information to the driver using VMS as well as broadcast media for dissemination by radio and TV.

Support Employer Based TDM's (voluntary basis)

- Carpool/vanpool matching
- HOV preferential parking
- Telecommuting
- Flexible work schedules

Public Participation

Public participation is an important part of the Capital Beltway HOV Study. Blending citizen suggestions, concerns, and needs into the process will result in better decisions with greater support. There are a number of ways to get involved and stay informed.

The best way to keep abreast of the study's progress is to request your name be added to the project mailing list. Persons on the mailing list will receive periodic newsletters, meeting announcements and other helpful information.

Informal Open Houses, held a number of times each year, are good opportunities to get the latest information and to talk with project planners. More formal Public Workshops and meetings are held at key project milestones. Two public workshops were held last fall and more are scheduled for late 1997 or early 1998.

You can also contact the SHA to receive current project information or request a presentation to your community group. Please contact Ms. Sue Rajan at the address and phone number provided to schedule a presentation.

Questions and comments are encouraged. Feel free to call the Capital Beltway HOV Study Hotline at 1-800-548-5026. The toll-free line is open weekdays from 8 AM to 4:30 PM. For additional information, contact Ms. Sue Rajan, Project Manager, directly at (410) 545-8514.

Upcoming Events

September 18, 1997

Open House at the Clara Barton Community Center, 7425 MacArthur Boulevard, Cabin John, MD

October 16, 1997

Open House at the Steven Decatur Community Center, 8200 Pinewood Drive, Clinton, MD

Late 1997/Early 1998

Public Workshops (one each in Montgomery and Prince George's counties)

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