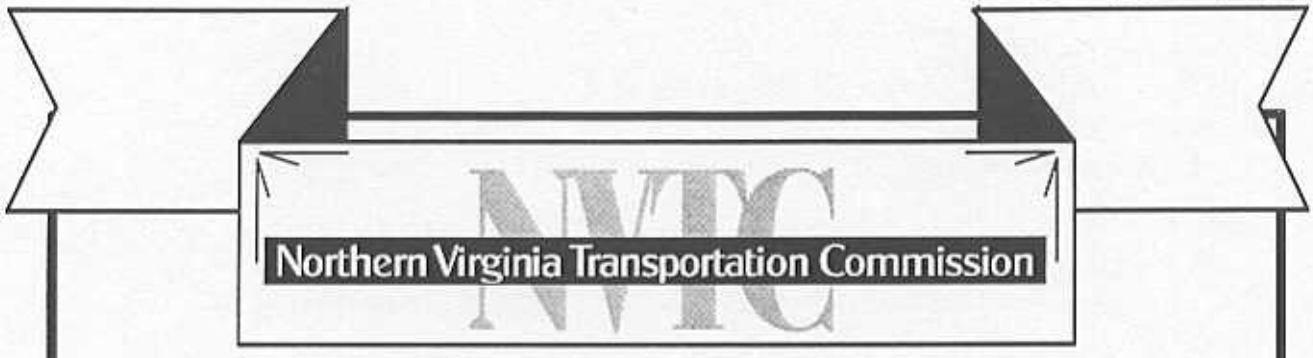

Fourteenth Annual Report

Northern Virginia

Annual Transportation Update

October, 1998

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LIST OF ACRONYMS AND ABBREVIATIONS

AAA	American Automobile Association
AASHTO	American Association of State Highway & Transportation Officials
ADA	American with Disabilities Act
ARTS	Automated Routing Transportation System
APTA	American Public Transit Association
AQPAC	Air Quality Public Advisory Committee
AVI	Automated Vehicle Identification
BATA	Ballston/Rosslyn Area Transportation Association
CAAA	Clean Air Act Amendment
CAC	Citizens Advisory Committee
CIP	Capital Improvement Program
CLRP	Constrained Long Range Plan
CMAQ	Congestion Mitigation & Air Quality Improvement Program
CO	Carbon Monoxide
CTB	Commonwealth Transportation Board
CUE	CUE Bus (city of Fairfax)
DASH	Alexandria Transit Company
DATA	Dulles Area Transportation Association
DRM	Division of Risk Management
EPA	Environmental Protection Agency
FAMPO	Fredericksburg Area Metropolitan Planning Organization
FCC	Federal City Council
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GMU	George Mason University
GPS	Global Positioning System
GRH	Guaranteed Ride Home
GSA	General Services Administration
HJR	House Joint Resolution
HMOF	High Maintenance Operating Fund
HOT Lanes	HOV-Free/Toll Other
HOV	High Occupancy Vehicle
HUD	Department of Housing and Urban Development
IRS	Internal Revenue Service
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITS	Intelligent Transportation Systems
LINK	Reston Transportation Management Association
LOV	Low Occupancy Vehicle

LIST OF ACRONYMS AND ABBREVIATIONS Cont'd

MARC	Maryland Rail Commuter Service
MDOT	Maryland Department of Transportation
MIS	Major Investment Study
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MWAA	Metropolitan Washington Airports Authority
MWAQC	Metropolitan Washington Air Quality Committee
MWCOG	Metropolitan Washington Council of Governments
NHS	National Highway System
NO_X	Nitrogen oxide
NPS	National Park Service
NTD	National Transit Database (formerly Section 15 data)
NVPDC	Northern Virginia Planning District Commission
NVTA	Northern Virginia Transportation Alliance
NVTC	Northern Virginia Transportation Commission
O_3	Ozone
PRTC	Potomac and Rappahannock Transportation Commission
RADCO	Rappahannock Area Development Commission
RFP	Request for Proposals
RSTP	Regional Surface Transportation Program
SAG	TCC Study Advisory Group
SCC	State Corporation Commission
SIP	State Implementation Plan
SOV	Single Occupant Vehicle
STARS	Surface Transportation Authority & Regulatory Act
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
TCC	Transportation Coordinating Council
TEIF	Transportation Efficiency Improvement Program
TERM	Transportation Emissions Reduction Measure
TIP	Transportation Improvement Program
TLC	Transit Link Pass between MARC, Metro and VRE
TMA	Transportation Management Association
TPB	Transportation Planning Board
TRB	Transportation Research Board
TRDI	Transit Ridesharing Development Initiative
TRIP	Train Information Provider
TRIP II	Toll Road Investors

LIST OF ACRONYMS AND ABBREVIATIONS Cont'd

TSCP	Transportation Service Coordination Plan
TTF	Transportation Trust Fund
TYTRAN	Tysons Transportation Association
USDOT	U.S. Department of Transportation
UVA/VA	University of Virginia/Virginia Tech.
VACO	Virginia Association of Counties
VDRPT	Virginia Department of Rail and Public Transportation
VDOT	Virginia Department of Transportation
VML	Virginia Municipal League
VOCs	Volatile Organic Compounds
VPSI	Van Pool Services, Inc.
VRE	Virginia Railway Express
VTA	Virginia Transit Association
WABA	Washington Area Bicyclist Association
WATF	Washington Airports Task Force
WMATA	Washington Metropolitan Area Transit Authority
WMTIS	Washington Metropolitan Traveler Information Service
WSTC	Washington Suburban Transit Commission

FOREWORD

This fourteenth in the series of Transportation Service Coordination Plans (TSCP) of the Northern Virginia Transportation Commission has changed significantly from past documents. The title of this year's report, The Northern Virginia Annual Transportation Update, was changed to represent the true format and focus of the report which had evolved over the years. In the past, the report has been more of a plan which examined options for planning, routing, scheduling, pricing, operating, marketing, and coordinating a diverse set of public transportation services in Northern Virginia. However, in recent years it has developed into a more comprehensive reference document. The format is now designed to allow a reader to quickly find information on hundreds of transportation issues. The report also reviews the issues that shape the region as well as the institutional and legislative settings within which transportation policies and programs are planned and implemented.

The document is made up of 17 sections which focus on providing information on transportation issues, associated data, the names of individuals to contact and summary tables, wherever possible. The Appendix contains contact information for agencies with responsibilities for regulating, planning, financing, and operating specific parts of the complex transportation system. Three original components can also be found in the document. These features include a matrix of regional studies and projects, which includes the project's purpose, study area, costs and contact; a list of area park and ride lots cross checked against all state and jurisdictional lists; and a matrix of comparative transit performance measures, such as on-time performance and passenger miles. In addition, ten initiatives have been identified as crucial for regional transportation coordination. These initiatives are listed below in **Table 1** and further information on each of these issues can be found in the text.

Table 1: Top 10 Regional Transportation Coordination Initiatives		
Initiative	**Importance**	**Contact**
I-95/395 HOV 2-3 Study	Considers reducing occupancy requirements on the I-95/395 HOV lanes, along with other options such as modifying the hours and/or improving access and egress. This study may directly impact the Mixing Bowl Congestion Mitigation Plan as it could alter the travel dynamics of the corridor.	Larry Trachy (804) 786-2814
Fare Simplification Study	Evaluates options for simplifying and coordinating transit fare policy through joint fare media and integrated fare structures for WMATA and local transit systems.	Tom Donahue, WMATA (202) 962-2429
Mixing Bowl Congestion Mitigation Plan	Identifies strategies to reduce congestion during the 6-8 year construction of the I-95/395/495 interchange.	Ken Wester, VDOT (703) 383-2457
Northern Virginia 2020 Transportation Plan	Update to 1989 Northern Virginia Sub Regional Plan which will identify transportation improvements needed to improve the efficiency of the transportation system.	Steve Suder, VDOT (703) 383-2217
NVTC Bus Data Collection	Collects origin/destination and other bus ridership data for Northern Virginia operators. Some of the data will be used to file NTD reports, thus earning the region a larger share of federal funds.	Heather Wallenstrom, NVTC (703) 524-3328
NVTC Electric Bus Project	Will operate four hybrid electric buses in the Falls Church area, connecting the East and West Falls Church Metrorail stations.	Heather Wallenstrom, NVTC (703) 524-3328
Regional Mobility Panel Interjurisdictional Funding Agreement	Develops a division of costs to determine the allocated subsidy for regional and non-regional Metrobus service and a commitment to pay by local governments for five years.	Rod Burfield, WMATA (202) 962-1004
Regional Smart Card Initiatives	Improves convenience of commuting for area transit passengers through electronic media and reduces maintenance and administrative costs of fare collection.	Ed Barnette, WMATA (202) 962-1156 Heather Wallenstrom, NVTC (703) 524-3328
TPB Study of New Regional Transportation Revenue Sources	Studies experiences throughout the country with introducing new transportation revenue sources. Will ultimately suggest possible approaches in the Washington Region.	Ron Kirby, MWCOG (202) 962-3310
Tysons to Montgomery County Express Bus Service	Provides weekday-fixed route express service between Bethesda and Tysons Corner via the Capital Beltway. Will also test new technologies.	Jim Hughes, WMATA (202) 962- 2343

INTRODUCTION

INTRODUCTION TO NVTC

NVTC was created by the Virginia General Assembly in 1964, and consists of 19 commissioners representing six Northern Virginia jurisdictions and the Virginia Department of Rail and Public Transportation. **Table 2** shows the current membership.

NVTC is charged with allocating as much as $100 million in state and federal aid each year among its member jurisdictions. The commission also appoints Virginia's two principal and two alternate members to the Board of Directors of the Washington Metropolitan Area Transit Authority (WMATA or Metro). WMATA operates Metrobus and Metrorail service in the District of Columbia, Maryland and Northern Virginia. The commission also appoints three members and one alternate to the Operations Board of the Virginia Railway Express. The commuter rail system, co-owned by NVTC and the Potomac and Rappahannock Transportation Commission (PRTC), began service in mid-1992, providing relief to commuters traveling on the congested I-66 and I-95 corridors of Northern Virginia.

NVTC has sponsored numerous demonstration projects to improve coordination among transportation services, such as the Falls Church Electric Bus, in which state-of-the-art nickel cadmium batteries together with an auxiliary power unit will propel 22-passenger buses linking the East and West Falls Church Metrorail stations with neighborhoods in the city of Falls Church. This project is being undertaken in close cooperation with Virginia Power, WMATA and Falls Church. NVTC has also hired a consulting firm for a bus data collection project which will compile jurisdictional and route-specific bus data to enhance management's ability to improve performance and qualify the region for additional federal transit formula assistance.

These projects are evidence of the active role the commission has assumed in coordinating transportation services in Northern Virginia and working with local governments to maintain stable and reliable funding for these services. NVTC also seeks to improve transit connections and assure that useful information is provided to passengers, while improving the performance of transit operators. The categories of NVTC goals enumerated in the commission's 1998 work program are listed below:

1. Transit service coordination
2. WMATA governance
3. Grant, contract, and trust fund management
4. Finance
5. Public information, marketing, and customer service

TABLE 2: NVTC OFFICERS AND COMMISSIONERS

--1998--

Albert C. Eisenberg, Chairman
Dana Kauffman, Vice-Chairman
David F. Snyder, Secretary-Treasurer

Arlington County

Albert C. Eisenberg
Paul Ferguson
Christopher Zimmerman[1]

City of Alexandria

Kerry J. Donley
Lois L. Walker[2, 4]

Fairfax County

Sharon Bulova[3]
Katherine K. Hanley[1]
Gerald W. Hyland[3]
Dana Kauffman[2, 3]
Elaine McConnell

City of Fairfax

Scott Silverthorne

Loudoun County

David G. McWatters

City of Falls Church

David F. Snyder

Department of Rail and Public Transportation

Leo J. Bevon

Virginia General Assembly

Senator Joseph V. Gartlan, Jr.
Senator Mary Margaret Whipple
Delegate L. Karen Darner
Delegate Toddy Puller
Delegate Marian Van Landingham

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1 *Principal member of WMATA Board*
2 *Alternate member of WMATA Board*
3 *Principal member of VRE Board*
4 *Alternate member of VRE Board*

6. Policy development and legislative advocacy
7. Ownership and operation of public transit services
8. Planning and technical assistance

More information about NVTC, its statutory mandate, history and accomplishments, as well as a detailed listing of its 1998 work program, is available in the commission's 1998 Handbook. Both this document and a colorful brochure illustrating NVTC's history and the earlier reports in the Transportation Service Coordination Plan series, are available upon request to the commission.

SECTION 1:

REGIONAL PLAYERS

SECTION 1: REGIONAL PLAYERS

The Washington metropolitan area presents a unique opportunity for interjurisdictional coordination. The presence of two states and an independent district, as well as the location of the federal government and its central role in employment, must be considered. In addition to its usual policy, regulatory and funding roles, the federal government directly owns land and certain facilities, such as the Woodrow Wilson Bridge. The U.S. Department of Transportation (USDOT), including the Federal Transit Administration (FTA), the Federal Highway Administration (FHWA) and the Federal Railroad Administration (FRA), as well as the Environmental Protection Agency (EPA) exert great influence over transportation plans and funding.

The organizational players include government agencies, area or jurisdictional representatives, and new groups formed in response to a particular issue or problem. They provide insight on transportation planning, financing, construction, regulation, and the advocacy of change. In many cases, coalitions of these organizations form to provide greater leverage to achieve shared objectives. While these players sometimes change, most can be found working together regularly to adopt policies, define programs, and improve the mobility of people and goods in the Washington metropolitan area.

Table 3 provides a complete list of transportation-related organizations located in the area, as well as federal/national organizations located within the region. Throughout this report, many of the agencies will be referred to by their acronyms.

Due to the large number of organizations and local issues, it is not always evident how these organizations interact. In an effort to clarify some of the relationships, **Table 4** shows the membership status of various agencies. While the chart is not comprehensive, it identifies many of the key players, about which further explanations follow.

TABLE 3: TRANSPORTATION AGENCIES/ORGANIZATIONS

FEDERAL/NATIONAL

American Association of State Highway and Transportation Officials (AASHTO)
American Public Transit Association (APTA)
Army Corps of Engineers
Congress
Environmental Protection Agency (EPA)
Executive Branch
General Services Administration (GSA)
National Park Service
Transportation Research Board/National Research Council (TRB)
U.S. Department of Transportation (USDOT)
- Federal Highway Administration (FHWA)
- Federal Railroad Administration (FRA)
- Federal Transit Administration (FTA)
- Office of The Secretary (OTS)

STATE

Commonwealth Transportation Board (CTB)
D.C. Department of Public Works
George Mason University (GMU)
Office of the Governor
Maryland DOT
- Maryland Rail Commuter Service (MARC)
- Maryland Mass Transit Administration (MTA)

Secretary of Transportation
State Corporation Commission (SCC)
Virginia Association of Counties (VACO)
Virginia Department of Rail & Public Transportation (VDRPT)
Virginia Department of Transportation (VDOT)
Virginia Division of Risk Management (DRM)
Virginia General Assembly
Virginia Municipal League (VML)
Virginia Transit Association (VTA)

REGIONAL

Baltimore/Washington Regional Association
Federal City Council (FCC)
Fredericksburg Area Metropolitan Planning Organization (FAMPO)
Greater Washington Board of Trade
Northern Virginia Planning District Commission (NVPDC)
Maryland National Parks and Planning Commission
Metropolitan Development Policy Committee
Metropolitan Washington Airports Authority (MWAA)
Metropolitan Washington Air Quality Committee (MWAQC)

Metropolitan Washington Council of Governments/Transportation Planning Board (MWCOG/TPB)
Northern Virginia Transportation Commission (NVTC)
Potomac and Rappahannock Transportation Commission (PRTC)
Rappahannock Area Development Commission (RADCO)
Transportation Coordinating Council of Northern Virginia (TCC)
Virginia Railway Express (VRE)
Washington Airports Task Force (WATF)
Washington Metropolitan Area Transit Authority (WMATA)
Washington Suburban Transit Commission (WSTC)

LOCAL

Citizens Transportation Advisory Boards
Commuter Stores
Offices of Transportation, Finance, Planning and Public Works
Transit Operators
- FAIRFAX CONNECTOR, including RIBS (Reston) and the TYSONS SHUTTLE
- CUE (City of Fairfax)
- ARLINGTON TROLLEY
- DASH (Alexandria)
- Loudoun County Commuter Service

Transportation Management Associations
- Dulles Area Transportation Association (DATA)
- Jefferson Davis Corridor Transportation Management Association (JDC TMA)
- Reston Area Transportation Association (LINK)
- Tysons Transportation Association (TYTRAN)

PRIVATE

American Automobile Association (AAA)
Coalition for Smarter Growth
Northern Virginia Transportation Alliance (NVTA)
Toll Road Corporation of Virginia
Washington Area Bicyclists Association (WABA)

TABLE 4: NVTC Jurisdictional Membership on Regional Transportation Entities									
		Focus	on MWCOG	on TPB	on TCC	on NVTC	on PRTC	on WMATA	on VRE
Towns	Herndon				1				
	Leesburg				1				
	Vienna				1				
Cities*	Alexandria		1	1	2	2			
	Fairfax		1	1	1	1			
	Falls Church		1	1	1	1			
Counties*	Arlington		1	1	3	3			
	Fairfax		3	2	8	5			
	Loudoun		1	1	2	1			
Regional	MWAA	airport planning and operations		1					
	NVPDC	multi-purpose regional planning support							
	NVTC	transportation planning and financing						2/2 **	3/1***
	PRTC	transportation planning and financing							3/1 ***
	VRE	public transit operator							
	WMATA	public transit planning and operations		1					
State	VDOT	transportation (highways)		1	1				
	VDRPT	public transportation			1	1	1		1
	No. VA Delegation	legislation	1	2	10	5	3		
Federal	FHWA	transportation (highways)		1					
	FTA	public transportation		1					

* *Note: Only includes NVTC jurisdictions.*

** *Note: Two alternate and two regular members are appointed to the WMATA Board from Northern Virginia by NVTC.*

****Note: Three regular and one alternate members are appointed to the VRE Board.*

Original Source: TCC White Paper on A Combined Transportation Organization for Northern Virginia, September 26, 1996. Updated August 1998.

Organizations With Transportation Responsibilities in the Washington, D.C. Metropolitan Area

1. Virginia Department of Rail and Public Transportation (VDRPT): Formerly a division of the Virginia Department of Highways and Transportation and later the Virginia Department of Transportation (VDOT), VDRPT provides technical and financial assistance to Virginia's public transit, ridesharing, and railroad operators. VDRPT, along with VDOT, also manages several studies that will help shape the future course of transportation in Northern Virginia, including a Major Investment Study of the I-66 Corridor outside the Beltway. The director of VDRPT is the current designee of the Secretary of Transportation to serve on NVTC.

2. Commonwealth Transportation Board (CTB): The policy-making body that allocates state funds (and federal funds channeled through the state) for transportation projects. Virginia's Secretary of Transportation chairs the CTB; the 16 members are appointed by the Governor. The group adopts a six-year funding program, which is updated each year. Northern Virginia's CTB member chairs the TCC.

3. Virginia Department of Transportation (VDOT): State agency responsible for building, maintaining, and operating the state's roads, tunnels, and bridges. While the VDOT headquarters is located in Richmond, a Northern Virginia district office is located in Fairfax County. VDOT provides a voting member of TPB from its Richmond headquarters and coordinates Northern Virginia's submittal of transportation projects for the regional Transportation Improvement Program (TIP).

4. Metropolitan Washington Area Council of Governments (MWCOG): In 1966 MWCOG was officially recognized by the federal government as the agency responsible for comprehensive regional planning. MWCOG also functions as the Metropolitan Planning Organization (MPO) for purposes other than transportation (e.g., population forecasts).

5. Transportation Planning Board (TPB): Includes separate technical and citizens committees and is designated as the metropolitan planning organization (MPO) for transportation in Northern Virginia, suburban Maryland and the District of Columbia. TPB established the Vision Planning Steering Committee, which guided the presentation of alternative visions for the 21st Century to the public and developed a preferred alternative; the ITS Task Force, which coordinates the use of technology in transportation projects; and multiple subcommittees of the TPB Technical Committee. These subcommittees include: Aviation Technical, Bicycle Technical, Major Investment Study Technical Coordination, Travel Management, Travel Monitoring, Travel Forecasting and Commuter Connections. TPB is responsible for adopting annual lists of projects to

receive federal funding and producing long range transportation plans. Members of the board consist primarily of elected officials from the local jurisdictions in each state and the District of Columbia.

6. Fredericksburg Area Metropolitan Planning Organization (FAMPO): FAMPO acts as a regional transportation planning agency for the city of Fredericksburg, Spotsylvania County, and Stafford County. The designation of Fredericksburg as an urbanized area through the 1990 Census lead to the 1992 Memorandum of Understanding (MOU) which created FAMPO. The MOU was signed by the Commonwealth of Virginia, the city of Fredericksburg, Spotsylvania County, Stafford County, and PRTC. The Rappahannock Area Development Commission (RADCO) staffs FAMPO and oversees transportation planning activities in Caroline and King George Counties. RADCO is a state-mandated agency addressing quality of life issues for the region.

7. Transportation Coordinating Council of Northern Virginia (TCC): Includes separate executive, technical and citizens groups, with a work plan that features regional consensus-building to establish transportation priorities. TCC is staffed by the Northern Virginia District Office of VDOT. The policy group, consisting primarily of Northern Virginia elected officials from NVTC, PRTC and the Transportation Planning Board is chaired by Northern Virginia's member of the Commonwealth Transportation Board. The group meets at least eight times each year to set forth priorities on regional transportation projects and establish legislative priorities. The executive, technical and citizens' committees meet monthly. TCC has adopted procedures to develop closer ties to the Transportation Planning Board and to provide better representation for town governments in the regional allocation process for transportation funds. The TCC initiates the annual process of allocating flexible federal TEA-21 funds available to Northern Virginia, and provides recommendations concerning their allocation to the Transportation Planning Board.

8. Metropolitan Washington Air Quality Committee (MWAQC): This group, which consists of elected officials from localities, states, and the District of Columbia, has been given the authority by the governors of Maryland and Virginia and the Mayor of the District to develop specific recommendations for regional ozone control strategies in the Washington non-attainment area. Once final, these recommendations are folded into Virginia's State Implementation Plan, which is submitted to the Environmental Protection Agency. The committee works closely with MWCOG and state and local staffs, as well as with the Air Quality Public Advisory Committee (AQPAC), which was created by MWAQC in order to enhance citizen input into the process.

9. Washington Metropolitan Area Transit Authority (WMATA): WMATA is the regional transit authority for the Washington Metropolitan area. It operates the Metrorail and Metrobus systems within a service territory established by an interstate (District of Columbia, Maryland, and Virginia) compact. In Virginia, the cities of Alexandria, Fairfax, and Falls Church are included in the transit zone defined by the compact, as well as Arlington, Fairfax, and Loudoun Counties. In summer 1998, the transit zone was enlarged by expanding NVTC's membership to include the cities of Manassas and Manassas Park and Prince William County. This enlargement was for the restricted purpose of allowing WMATA, through a contracted relationship with PRTC, to provide bus service in these areas. NVTC appoints from its commissioners Virginia's members of the WMATA Board of Directors.

10. NVTC: Summary included in introduction.

11. Potomac and Rappahannock Transportation Commission: Created in 1986, PRTC is the transportation commission for Prince William and Stafford counties and the cities of Fredericksburg, Manassas, and Manassas Park. A total of 15 principal commissioners are appointed by the member jurisdictions, the General Assembly, and the Virginia Department of Rail and Public Transportation (VDRPT). PRTC operates the OmniRide bus service, which includes a commuter bus system, a neighborhood and rail station feeder service known as OmniLink, and a ridesharing program. PRTC is also co-owner of the Virginia Railway Express commuter rail service.

12. Virginia Railway Express: The Virginia Railway Express is a joint commuter rail project of the NVTC and PRTC. In 1992, VRE began peak period service from Fredericksburg and Manassas into Washington DC, with stations in Alexandria, Crystal City, L'Enfant Plaza, and Union Station, as well as at suburban locations along the 81 miles of right-of-way. Amtrak is VRE's contract operator with access to tracks and facilities leased from Norfolk Southern, CSXT, and Amtrak. VRE's Operations Board meets monthly and is comprised of representatives from NVTC and PRTC jurisdictions. The Operations Board votes on issues relating to VRE operations, service, and financing and, for matters not delegated to the board, forwards recommendations to the two commissions for approval.

Names, addresses, and telephone numbers for many agencies and organizations currently involved in transportation (and related air quality) endeavors in Northern Virginia and the metropolitan area are included in the Appendix. The Appendix is organized alphabetically and includes a summary of each organization's primary responsibility.

Regional Authority

Due to the serious nature of this region's transportation problems, the many proposed remedies require extensive funding which the region does not have. As a result, there has been a recurring call for a central authority, charged with raising funds and building major regional transportation facilities. In November 1997, the Transportation Planning Board (TPB) released a draft Vision and Action Agenda which called for a strengthened TPB, by the year 2000, that will adopt and ensure the implementation of a new Constrained Long-Range Plan. Prompted by this call, and with support from local business and government leaders, Senator Charles Robb and Representative James Moran introduced the **Metropolitan Washington Regional Transportation Act**.

This bill encourages local jurisdictions to work toward consensus on a list of regional projects by providing a regional funding mechanism to get the projects built. In an effort to promote agreement, the legislation also provides federal matching planning grants and expedited congressional approval of any interstate compact agreed to by the region. A nonprofit corporation would be created by the bill and given the power to issue debt and marshal existing funding to act quickly on needed transportation improvements. The TPB held a special work session in July 1998 to discuss the bill, present questions, and organize the collection of information necessary for moving forward. A follow-up discussion has been planned for the September 1998 TPB meeting.

While this call for a regional authority has been heard before, there has not yet been any agreement on how to implement it. Even when only dealing with a portion of one state, the challenge can be overwhelming, as was seen in Virginia in 1997. In 1995, the TCC completed a "Study of Surface Transportation Planning and Organization," which recommended future TCC action on possible consolidation of agencies; strengthening the NoVA District; improving the Major Investment Study process; and public participation enhancements. In 1997, a consultant study which addressed the possible consolidation of agencies was completed. While several options for reconfiguring the transportation planning process were considered, months of study narrowed the options down to two organizational scenarios - a consolidation of TCC, NVTC, PRTC and VRE or an "enhanced" TCC.

The options were then evaluated based on criteria ranging from the potential to secure new funding to the loss of a transit forum. In December 1997, the TCC determined that while, "the consolidated commission scenario...identifies potential benefits such as advocacy for additional funding, regional planning, and operational efficiency..." there are also, "numerous legal complexities associated with a consolidated commission such as the Washington Metropolitan Area Transit Authority (WMATA) Compact and the Virginia Railway Express (VRE) Master Agreement." These legal complexities include possible legislative action in Virginia, Maryland, the District of Columbia, and Congress

due to language in the VRE and WMATA compacts. Based on these factors combined, the TCC determined that while it, "should continue to implement the baseline condition" (enhanced TCC), jurisdictions should also "consider options which potentially expand present membership on existing transportation entities and joint transportation planning mechanisms." While there are sure to be similar challenges in developing a regional transportation authority, the Robb-Moran bill provides local jurisdictions a financial reward for working toward consensus, an approach they hope will compel success.

SECTION 2:

FINANCIAL CONTEXT

SECTION 2: FINANCIAL CONTEXT

Federal Funding

The **Intermodal Surface Transportation Efficiency Act of 1991,** also known as **ISTEA,** established federal transportation funding programs which emphasized increasing funding flexibility among modes. This flexibility allowed states and metropolitan areas to choose to construct and enhance those modes of transportation that best met their particular needs. ISTEA expired in September of 1997, and was replaced by the Transportation Equity Act for the 21st Century or TEA-21 in June, 1998. The six year bill will apply through September, 2003, and involves substantial increases in the amount of federal transportation funding that will be available for both highways and transit. TEA-21's transit program authorizes $42 billion, with a guaranteed funding level of $36 billion, representing a 50 to 74 percent increase over the funding appropriated under ISTEA. More information on the differences between ISTEA and TEA-21 can be found in **Table 5.** Funds of particular interest to the Northern Virginia region are generally passed down to states and localities in one of three ways:

Formula money allocated to the state. Includes the following programs:

- **Surface Transportation Program.** STP funds may be used for any mode of surface transportation (e.g. rail, highways, or bicycle and pedestrian paths) and therefore are the most adaptable to local needs.[1] In Virginia, STP funds are allocated in three ways. One part of it is distributed to areas of the state based on population; this becomes the regional share (see below). Another portion (roughly 30 percent) is allocated to specific projects by the Commonwealth Transportation Board. The remainder goes into the regular state distribution formula. For FY99, $16.23 million in statewide STP funds was programmed in Northern Virginia. Of these funds, $6.5 million was flexed to transit or intercity rail projects.

- **Enhancements and Safety Set-Asides.** Ten percent of all STP funds must be reserved for transportation enhancements such as scenic, historic, and environmental projects which enhance the aesthetic or environmental aspects of the intermodal transportation system. Virginia invites local jurisdictions to submit proposals for enhancements funding which are then reviewed by the CTB.

[1]Funding program descriptions adapted from State Expenditures of Federal Surface Transportation Funds: Do They Reflect the New Directions? Surface Transportation Policy Project. (Washington, DC) 1993.

Table 5: Comparison of ISTEA and TEA - 21

Issue	ISTEA 1991 - 1997	TEA - 21 1998 - 2003
Overall Funding Levels	$155 billion, all modes $26.6 billion annual average, all modes	$216 billion, all modes $36 billion annual average, all modes
Budgetary Mechanisms	• The Federal-aid Highway and Transit programs were funded through the Highway and Mass Transit Accounts of the Highway Trust Fund. • Some general funds were appropriated for the transit program to supplement Trust Funds.	• Establishes separate Highway and Mass Transit account "firewalls" that are designed to provide sufficient outlays which guarantee that the Highway Trust Fund spending will equal the previous year's tax receipts. • Over 1998-2003, the Highway firewall guarantees $162 billion in spending • Over 1998-2003, the Transit firewall guarantees $36.3 billion in spending
Surface Transportation Program (STP) Program	$23 billion over 6 years	$33.3 billion over 6 years
Enhancements Program	• 10% set aside of STP funds for transportation enhancement projects. • Eligible projects include: pedestrian/bicycle; scenic/historic; highway beautification; rails-to-trails; control/removal of outdoor advertising; mitigation of water pollution from highway runoff. • Nonfederal share calculated on individual projects basis.	• 10% set aside of STP funds for transportation enhancement projects. • Eligible projects include those in ISTEA, plus tourism and welcome centers (if linked to scenic/historic site). • Enhancement now must "have a relationship to surface transportation." • Nonfederal share now calculated on average annual basis for all enhancement projects in state.
Congestion Mitigation Air Quality (CMAQ) Program	• Can not be used for cold start programs. • Can not be used for SOV projects. • For use in ozone and CO nonattainment areas - US DOT extended eligibility to particulate matter (PM) nonattainment areas as well.	• Can be used for cold start programs. • Can not be used for SOV projects. • Maintains eligibility to ozone and CO nonattainment areas and extends eligibility to PM areas and areas designated under the revised air quality standards.
Uniform Transferability	Allowed for up to: • 50% of NHS (100 with Secretarial approval) • 40% bridge funds • 20% IS-M (more with certification)	• Allowed for up to 50% of all program funds, **except** suballocated STP and metropolitan planning. • Rules also provided which limit transferability of CMAQ, enhancement, and safety infrastructure funds.

Table 5: Comparison of ISTEA and TEA - 21 *(continued)*		
Issue	**ISTEA 1991 - 1997**	**TEA - 21 1998 - 2003**
Transportation and Community and Systems Preservation Pilot Program	No Program	• Established $120 million program. • USDOT allocates funds to state, MPOs, and local governments. • Goal is to integrate transportation, community, and system preservation plans and practices. • Funding also available for projects which address transportation efficiency and community preservation. • Funding must be allocated equitably by USDOT across diverse populations and geographic areas.
ITS Program	$660 million for research and development, planning, and deployment	Total of $1.3 billion for ITS research and development and ITS deployment • Research/Development = $603 million • Deployment = $666 million
Transit Program	Total program = $31.5 billion <u>Formula grant program</u> • $17.45 billion • Cap on operating expenses <u>Section 3 Discretionary grant program</u> • $12.4 billion • Funds distributed - 40% to new starts 40% to rail modernization 20% to bus/bus facilities	Total program = $42 billion <u>Formula grant program</u> • $19.27 billion • Areas <u>over</u> 200,000 population can not use formula funds for operating assistance but have expanded eligibility for capital. • Areas <u>under</u> 200,000 population have no restriction on use of formula funds for operating assistance. <u>Section 3 Discretionary grant program</u> • $18.32 billion • funds distributed - 40% to new starts 40% to rail modernization 20% to bus/bus facilities

Table 5: Comparison of ISTEA and TEA - 21 *(continued)*		
Issue	**ISTEA 1991 - 1997**	**TEA - 21 1998 - 2003**
Metropolitan Planning Provisions	• Requires consideration of 16 planning factors. • Established structure of metropolitan transportation planning process, including development of long range plans and transportation improvement programs (TIP).	Retains the basic structure of the metropolitan transportation planning process, with the following changes: • Consolidation of 16 planning factors into 7, although lack of consideration is not reviewable in court. • States can now move projects within three year TIP with MPO concurrence only - separate US DOT approval no longer required. • Illustrative list of projects can be included in the plan or TIP if they would have been included if funding were available. • Bicycle and pedestrian projects must be given special consideration in developing the plan and TIP.
Major Investment Studies	Required the preparation of major investment studies (MIS) in regional corridors.	No longer a separate requirement. Process is being integrated into the metropolitan and statewide transportation planning process and as part of the National Environmental Policy Act (NEPA).
Transit Metropolitan Planning Funds	$944 million	$967 million
Access to Jobs/Reverse Commute	No Program	A total of $750 million to develop additional transportation services needed to connect welfare recipients and other low income persons to jobs and needed support services.

An additional ten percent of the STP funds must be set aside for safety programs. Among other activities, these funds are available for the improvement of at-grade railroad crossings.

- **Congestion Mitigation and Air Quality Improvement Program (CMAQ).** These funds are apportioned to states on the basis of the population living in areas that violate federal air-quality standards weighted by the severity of the pollution. Funds are to be used for the purpose of improving air quality and reducing traffic congestion. VDOT uses its own formula to allocate these funds among the state's four non-attainment areas; in Northern Virginia, the TCC recommends to the TPB and then to the CTB which projects to fund. For FY99, $30.97 million in CMAQ funds were programmed in Northern Virginia, of which, $6.5 million was allocated for transit projects.

- **National Highway System (NHS).** The NHS is a system of 156,500 miles of existing roads of "national significance," including the 42,800 mile Interstate System. Up to 50 percent of this money may be transferred to the STP fund and used for any mode; the other 50 percent may also be transferred with the U.S. Secretary of Transportation's permission. In addition, transit projects in an NHS corridor (VRE, for instance) are eligible for NHS funds.

Funding allocated to the metropolitan planning organization

- **Regional Surface Transportation Program (RSTP).** A portion of STP funds are reserved for the MPO's to allocate. In Northern Virginia, projects are chosen by the TCC and forwarded to TPB and CTB for confirmation. For FY99, $20.5 million in RSTP funds were allocated in Northern Virginia, of which, $265,000 was allocated to transit projects.

- **Job Access and Reverse Commute Grants (§5201-5213).** Funds are available for projects designed to transport welfare recipients or low-income individuals to and from jobs and employment related activities and/or provide reverse commute options that offer better access to suburban areas to urban residents.

Discretionary and formula money allocated directly to transit systems

- **Transit, Capital Investment Grants (§5309).** These funds are distributed by the federal government on a discretionary basis for capital projects only. Distributions are made by the Federal Transit Administration or congressional earmark as part of the annual

appropriations action. Funds are divided among new projects, rail modernization, and other activities such as purchasing buses.

- **Transit, Urbanized Area Formula Grants (§5307).** These funds (formerly called Section 9 funds) are distributed on a formula basis, and are reserved for capital and until FY 1999, operating transit expenses in urban areas. Because operating dollars are generally spent more quickly than capital dollars, Congress has eliminated the amount of each large transit system's allocation that can be used for operating expenses. VRE, WMATA, and the Maryland Mass Transit Administration all receive urbanized area funds; of these, WMATA was the only system to receive operating monies. Under TEA-21, one percent of all urbanized area formula funding must be spent on enhancement projects.

- **Clean Fuels Formula Program Grants (§5308).** The Clean Fuels Formula program is new under TEA-21, and allows public transit operators in any non-attainment or maintenance areas to apply for funding to lease or purchase clean fuel vehicles, facilities or equipment.

- **Intelligent Transportation Systems Program Grants (§5201-5213).** These funds administered by the Federal Highway Administration are allocated for ITS research and development, planning and deployment activities. The bill provides overall funding for the ITS program ranging from $196-$232 million per year from FY 1998-2003. Funding is allocated across two categories: (1) ITS standards, research, and operational tests funded at $95-$110 million per year; and (2) ITS deployment funded at $101-$122 million per year. In Fiscal Year 1999, $6 million was allocated to the region for Capital Beltway improvements.

State Funding

The sources of state transportation funding and the formulas by which that funding is allocated have grown and changed over time, resulting in a complicated method of distributing state transportation monies. The following describes in general how state funds are allocated.

There are two primary streams of state transportation funds. The bulk of transportation revenues in the state flow to the Highway Maintenance and Operating Fund (HMOF). The sources of these funds include gas tax and motor vehicle sales tax revenues, as well as fees collected for motor vehicle registrations and license plates. In 1986, a Special Session of the General Assembly created a second funding source, called the Transportation Trust Fund (TTF) to increase and

redistribute transportation funding statewide. Like the HMOF, the fund is made up of revenues from the state sales tax, various transportation user fees (e.g., tax on automobile rentals) and other smaller sources.

Administrative costs of VDOT and VDRPT are first taken "off the top" of the HMOF fund. A certain amount of the remaining money is then allocated to each locality for the maintenance of its highway system, which is based on the number of lane-miles and types of roads in each jurisdiction. The remaining money is used for highway construction, and is distributed by state allocation formula.

Transportation trust funds are divided among four modes of transportation: highways (79 percent), mass transit (14.5 percent), ports (4.1 percent) and airports (2.4 percent). In FY 2000, the percentage allocated to mass transit will increase to 14.7 percent, and the highway allocation will be reduced to 78.8 percent. The money set aside for mass transit is managed by the Virginia Department of Rail and Public Transportation (VDRPT), under the direction of the Secretary of Transportation. In FY98, the Commonwealth spent approximately $92 million on transit state-wide. Financial assistance to mass transit programs is divided into three sub-categories:

1. Formula Assistance - 73.5 percent of the total funds are made available to public transit systems for operating-related expenses (administration, fuels, lubricants, tires, and maintenance parts and supplies) and ridesharing program expenses under a distribution formula based on total operating expenses.

2. Capital Assistance - 25 percent of the funds are used as capital grants which are awarded on a discretionary basis. The state participation ratio will vary from year to year according to the demand for capital assistance, but in any one year, the state participation ratio will be the same for all capital grants awarded.

3. Special Programs - 1.5 percent of the funds will be used to award special programs grants for independent ridesharing programs, technical assistance, and experimental public transportation projects on a discretionary basis.

The capital assistance sub-program funds available to be distributed each year are determined by adding together 25 percent of the total amount of financial assistance to mass transit and any surplus of formula allocations. Each year, the Commonwealth Transportation Board approves an annual capital program of projects to be funded. All capital projects approved in the annual program will receive the same percentage of state participation up to a maximum of 95 percent of the non-federal share. The actual percentage of state participation in capital projects may vary from year to year depending on the total amount of the funding requests; in recent years it has ranged from 30 to 50 percent.

The Transportation Efficiency Improvement Fund (TEIF) supports projects that reduce the demand for new or expanded transportation facilities that serve single occupant vehicles and contribute to the attainment of the National Ambient Air Quality Standard in non-attainment areas of the Commonwealth. The primary purpose of the TEIF program is to support state, regional, and community level initiatives that demonstrate innovative approaches to reducing transportation demand and traffic congestion.

Local Funding

Transit funds allocated to Northern Virginia by the Commonwealth are provided primarily through NVTC and PRTC. At NVTC, they are further allocated to the member jurisdictions using a formula that considers a weighted average of transit subsidies and costs. The Commonwealth also collects for the Northern Virginia jurisdictions a two-percent motor fuels tax, which is dedicated to WMATA expenses within the five NVTC jurisdictions supporting WMATA and is available for any transportation expense in the other jurisdictions.

Once bills for Metrorail and Metrobus have been assigned to Northern Virginia jurisdictions, NVTC determines how available transit aid is allocated among its member jurisdictions to pay these bills. The formula established to allocate transit aid assigns relative subsidies paid by each jurisdiction a weight of three-quarters, and relative transit costs a factor of one-quarter.

NVTC allocates up to $100 million annually to its member jurisdictions to support public transit systems. The costs used in the calculation of the formula include Washington Metropolitan Area Transit Authority (WMATA) total capital and operating costs for the Northern Virginia portion of the bus and rail lines and costs of locally provided transit services. Subsidies are the total costs less the ridership revenue and grant funds associated with the service provided.

The application of NVTC's formula for FY 1998 yielded a distribution of the available assistance among member jurisdictions of $65.3 million. The total available funding was $73.9 million, with debt service and other expenses taken off the top prior to allocation. Loudoun County's motor fuel revenues are not formula allocated.

A difficulty with the allocation of Metrobus costs by NVTC prior to FY 1999 was that certain fixed costs were treated within the NVTC allocation formula as if they are variable. This provided an incentive to reduce Metrobus service and add local bus service, since the jurisdiction received credit for formula cost savings at the expense of its neighboring Virginia jurisdictions. Similarly, when a jurisdiction added Metrobus service it absorbed more fixed costs than would otherwise be the case, which provided a financial bonanza for its neighbors. The cost allocation

dilemma helped to fuel the debate about the relative merits of a regional Metrobus system in Northern Virginia versus locally sponsored operations.

With the adoption of the Regional Mobility Panel's recommendations, NVTC will no longer reassign fixed costs in this way, thereby relieving an artificial stimulant to cutbacks in Metrobus service. Also, motor fuels taxes will begin to be distributed based on point of sale. NVTC's jurisdictions are continuing to review other aspects of NVTC's allocation for possible revisions prior to the 1999 General Assembly Session.

Local jurisdictions also use their own funds to support both highway and transit projects. For example, in FY 1999 it is estimated that Northern Virginia jurisdictions will spend at least $56.3 million in local funds on WMATA and local transit systems alone.

Future Funding

The region must look to innovative funding sources and financing mechanisms if it is to keep up with projected growth. Results from several recently completed transportation studies have suggested the need for additional transportation funding sources, and as a result, regional support for the idea has grown. With funding from the FY98 Unified Planning Work Program, MWCOG initiated a study of New Transportation Revenue Sources in the Washington Region. By reviewing the experiences of other areas where new transportation revenue mechanisms were introduced, the study will suggest the most promising approaches for this area (See Section 5: Regional Studies for more information).

Other promising suggestions focus on mechanisms which in some way charge the costs of the system more directly to its users, i.e., some type of user fees or pricing. A listing of a few types of pricing that have been suggested in the Washington region demonstrate the different levels of specificity and the different impacts various strategies might have.

A very general form of pricing is a special tax district, in which a particular area agrees to tax itself in order to pay for a facility from which the businesses or residents believe they will benefit. This is the concept behind the Route 28 Tax District in the Dulles corridor, and has been suggested as one possible component of funding for extension of Metrorail to Dulles.

Another type of pricing is "cash-out parking", a system in which an employee may choose to receive employer-paid parking privileges, as most employees in this region do, or the cash equivalent. In this way, employees can make the best use of the benefit available to them – either by continuing to take advantage of the parking spot, by using the money for transit fares or bicycle

maintenance, or by profiting from the fact that they have chosen to live near their office and can walk to work. Right now, the federal tax code, by allowing tax free parking benefits of up to $170 a month and tax-free transit benefits of up to $65 a month, creates a bias towards employees using free parking. This policy will change in 2002 when the limit on tax-free transit benefits is increased to $100 per month. In southern California, cash-out parking is mandated for some employers -- and the IRS is among the offices complying with that local law.

Toll facilities are another form of pricing that is becoming more prevalent. In Northern Virginia, the Dulles Toll Road and Greenway charge tolls for use. New technologies such as Automatic Vehicle Identification (AVI) allow tolls to be deducted automatically from drivers' accounts, or billed to them later, increasing both the capacity and the safety of toll facilities. A variation, also made more feasible by AVI technology, is congestion pricing, in which tolls are imposed or are increased during peak periods, providing an incentive for people to share trips during those times or drive at other times if their schedules are flexible. This technology, which is discussed further in Section 12: HOV Lanes and Toll Roads, is now being used very successfully in California.

It is important to differentiate pricing from "just another tax." Many of the costs of driving, such as air and noise pollution, are not borne only by the drivers, and thus, driving is overconsumed. For the most part, society does not acknowledge that certain driving times are more "expensive" than others. For instance, all drivers want to drive during the same hour, then a highway that accommodates them must be twice as large as it would if they were to spread their trips out over two hours. Through encouraging people to better distribute their trips, congestion pricing can serve not only to raise revenues for new construction, but also to limit the amount of new construction required.

The TPB staff has modeled the effects of a region-wide congestion pricing program in this area, and results suggest that it would generate large amounts of revenue, while decreasing travel demand more than many other strategies. Of course, many issues, involving both equity, logistics, and political will would have to be settled before any such program could be implemented.

Virginia has also taken steps to encourage private investment opportunities through the passage of the Public-Private Transportation Act of 1995. This Act grants public entities the authority to allow private entities to construct and/or operate certain transportation facilities. Individually negotiated agreements define the rights and obligations of both the public and private parties, and proposals do not have to be competitively procured. This Act followed the construction of the Dulles Greenway, and has led to proposals around the state from private developers.

In a similar type of funding initiative, Virginia was among the first states to initiate development banks for highways and transit. Federal funds were made

available to help start the bank, which will rely on debt financing payments to fund additional projects. New financing initiatives such as these hold the promise of transportation improvements beyond those the region is currently able to afford.

Table 6 lists contacts for more information on funding.

Table 6: Contacts for More Information on Funding		
Agency	**Funding Type**	**Contact**
APTA	Federal	Kip Banks, (202) 898-4121
USDOT Office of the Secretary/ Office of the Budget and Programs	Federal	Margaret Alkon, (202) 366-9642
Virginia Department of Transportation	State	Bob McDonald, (703) 383-2226
Virginia Department of Rail and Public Transit	State	Chip Badger, (804) 786-8135
Study of New Transportation Revenue Sources in the Washington Region	New Local Sources	Ron Kirby, MWCOG (202) 962-3310
NVTC	Local	Rick Taube, (703) 524-3322
WMATA	Local	Leona Agouridis, (202) 962-1051

SECTION 3:

PLANNING

SECTION 3: PLANNING

Current Federal Legislation

Since 1990, three types of federal legislation have worked to reshape the context in which transportation decisions are made. The Clean Air Act Amendments and the Americans with Disabilities Act established standards ensuring that transportation projects improve air quality and access for persons with disabilities. The Intermodal Surface Transportation Efficiency Act of 1991 and its successor, the Transportation Equity Act for the 21st Century (1998), allocate federal transportation funding and outline required planning criteria such as comprehensive long-term planning. More specific information on each of these items can be found below.

1. **Clean Air Act Amendments of 1990 (CAAA).** The CAAA established federal air quality standards and deadlines to meet them. The Environmental Protection Agency (EPA) measures air pollution levels across the country, and counties found to be in non-attainment of the federal standards are rated on a scale from extreme to marginal for a number of pollutants. The CAAA also specifies that in order to receive federal transportation funds, a region's Constrained Long Range Plan (CLRP) and Transportation Improvement Program (TIP) must conform with the region's air quality program.

2. **Americans with Disabilities Act of 1991 (ADA).** This act, along with rules promulgated during 1991 by the U.S. Justice Department, Architectural and Transportation Barriers Compliance Board, U.S. DOT, and others, generally requires that accessibility to public spaces and services be guaranteed. In the field of public transit such rules require changes ranging from lift-equipped buses and directional signs in Braille to complete paratransit services (usually door-to-door), which must be provided by all public transit systems except commuter railroads.

3. **Transportation Efficiency Act for the Twenty-First Century (TEA-21).** This reauthorization of ISTEA was signed into law by President Clinton on June 9, 1998. TEA-21 is a six year bill which generally maintains ISTEA's federal transportation funding programs, emphasis on increasing funding flexibility among modes, and state and metropolitan planning criteria. In addition, TEA-21 maintains many ISTEA transit programs including formula grants, rail modernization and discretionary grants for new starts. New

programs, such as access to jobs/reverse commute, were added. More specific information on TEA-21 and the differences between it and ISTEA can be found in Table 5, located in Section 2: Financial Context.

ISTEA, the CAAA, and now TEA-21 require improved long-term planning on the part of Metropolitan Planning Organizations, such as the Transportation Planning Board. FTA and FHWA are planning to revise the Joint Planning Regulations to formally incorporate changes to the planning program in TEA-21. General documentation requirements include:

1. **State Implementation Plan (SIP):** The state must submit this document to the EPA. The SIP documents the steps the state will take to attain its air quality goals, and to stay within a "budget" of allowable emissions. As part of the SIP, any area classified as "serious" or above for ozone nonattainment (as the Washington area is) must submit to EPA revisions to the SIP which show how emissions contributing to the formation of ozone will be reduced by 15 percent and then by three percent per year until the area reaches attainment of the standards.

2. **Constrained Long Range Plan (CLRP):** Every metropolitan area must submit a CLRP which outlines all planned projects of regional significance over an extended period of time. The CLRP is "constrained" by the amount of funding that can reasonably be predicted to be available for transportation improvements over the same time period. The CLRP must be updated at least every three years.

   Under ISTEA legislation, projects included in the CLRP were required to have funding identified in order to be included. Projects must be included in the CLRP for environmental work to begin and right-of-way to be preserved. TEA-21 changed these rules in that some projects, for which there is not yet specific funding, can be included in the CLRP for illustrative purposes.

3. **Transportation Improvement Program (TIP):** All metropolitan areas must submit a TIP, which identifies specific project funds over a period of six years. The TIP must be updated every other year, although many regions, including the Washington Metropolitan area, update them annually. TIP's for all Virginia jurisdictions are combined to form the State Transportation Improvement Program (STIP), which is eventually approved by FHWA.

State Administration

At the state executive level, the institutional context in which transportation policy and funding decisions are made is centered on the Commonwealth Transportation Board (CTB). Among its responsibilities, the CTB approves the Statewide Transportation Improvement Program (STIP) and long range state transportation plan. Each spring CTB conducts a series of public hearings around the commonwealth before adopting the six-year transportation program.

Coordination of Efforts

The federal regulations discussed above emphasize cooperative planning efforts and public participation. As a result, the achievement of consensus among the many agencies and individuals involved has become critical to the successful implementation of many projects. With all these groups taking part in transportation planning, it should come as no surprise that the issue of the appropriate level at which decisions should be made arises frequently. The issue is particularly contentious in this region, which combines two states and an independent district -- and happens to be in the front yard of the federal legislature. Examples of such disputes include reduced HOV requirements enacted by Congress and refusal to allow commuters on the Dulles Access Road by a federal oversight panel. On the other hand, Congress has not yet been willing to authorize sufficient funding for replacing the Wilson Bridge, which is federally funded.

MWCOG Vision Plan

In ISTEA, the federal requirement that long-range plans be fiscally constrained was designed to force regions to only plan for what they can currently afford. However, TEA-21 provides the opportunity for states and MPOs to list projects which would be included in the plan if additional resources were to become available. It should be noted that the listing of "illustrative" projects does not affect the fiscal constraint requirements or conformity requirements of the plan. This option to include illustrative projects further reinforces the need for the region to discuss the future transportation vision. In an effort to initiate this discussion, the TPB initiated a "Vision Planning" process entitled "Getting There" in 1995.

The process was designed to engage citizens, elected officials, and interested organizations in developing a bold transportation vision for the first half of the 21st century. Phase I involved an outreach effort to solicit public comment and input through a series of public meetings. Phase II of the vision planning process took place from July, 1995 to June, 1996, and focused on developing alternative visions and strategies for the implementation of regional

transportation initiatives. To accomplish these tasks, three groups were formed to develop alternative visions. One group focused on economic prosperity, another emphasized quality of life, and the third looked at access to opportunities.

The TPB established a Vision Planning Steering Committee to revise the vision statement and goals, develop objectives and strategies, and guide presentations to the public. In the summer of 1998, a public outreach campaign was conducted which included a telephone survey, web page, and mailing of brochures with tear-off comment cards.

The following information was presented:

Truths about the Region

- We are a vibrant world capital.
- We have the nation's most complex government structure - with 18 local jurisdictions, two states, and the District of Columbia.
- Our area is undergoing tremendous change, with population and job opportunities expanding dramatically.

Key Concepts of the Vision Plan

- A "spider web" network connecting transit and roads to all major employment centers is essential.
- Development and transportation will be better coordinated.
- An enhanced funding mechanism(s) for the region would help maintain our region's transit systems and fund transportation priorities that the public supports.

Public Comment on Vision Plan

In an effort to capture public response to the goals, objectives, and strategies laid out in the vision plan, TPB launched a comprehensive public outreach campaign. Responses included 700 tear-off comment cards from the brochure, 773 telephone interviews, 1000 post cards, and over 60 letters. The telephone survey was conducted by a professional survey research firm, using a sample size of 733 households. An absolute sampling error of plus or minus three percent and a confidence level of 95 percent were established. Phone survey results are summarized below in **Table 7.**

Table 7: Vision Plan Phone Survey Summary			
Question	**Agree**	**Disagree**	**Don't Know**
The "spider web" concept is better than the "hub and spoke" concept?	84%	7%	8%
Governments should encourage concentration of future development in Employment Centers?	79%	10%	11%
Do you support enhanced funding mechanism(s)?	53% (Yes)	18% (No)	29% (Don't Know)

Once adopted, the vision plan will be used as a guide to update the region's Constrained Long Range Plan (CLRP). As discussed in Section 5: Regional Studies, the TPB has also initiated a study to pursue additional funding sources for the region. For more information on these MWCOG studies, please contact Gerry Miller of MWCOG at (202) 962-3319.

SECTION 4:

ENVIRONMENTAL CONTEXT

SECTION 4: ENVIRONMENTAL CONTEXT

Air and water quality are growing concerns in the National Capital Region. The Washington region's most serious air pollution problem is ozone, an invisible component of smog that is harmful to the lungs and breathing passages. Crops, trees and other plants also suffer from ozone exposure. Cars, trucks, buses and motorcycles generate more than a third of the anthropogenic ozone-causing emissions in the metropolitan Washington area. Vehicle emissions also contribute to water pollution, and this problem is compounded when a large portion of land is paved over. This prevents water runoff from seeping into the ground where it can be naturally purified; instead it finds its way directly into streams and reservoirs, along with all the pollutants it is carrying.

Air Quality

The Environmental Protection Agency has established ambient air quality standards for six major air pollutants, called criteria pollutants. These pollutants are ground level ozone, carbon monoxide, particulate matter, lead, sulfur dioxide and nitrogen dioxide. Many urban areas exceed the ambient air quality standards for at least one pollutant and are classified as nonattainment areas. As shown in **Table 8**, the Washington metropolitan region is a nonattainment area for ground level ozone. Standards for ozone and other national air quality standards compared to 1996 measures of ambient air quality in Northern Virginia are also included in **Table 9**.

Ozone is formed when nitrogen oxide (NO_x) interacts with volatile organic compounds (VOCs) in the presence of sunlight,[2] so NO_x and VOC emissions must be reduced to decrease ozone formation. In the Washington region, just under one half of the ozone forming pollutants come from traffic. The Clean Air Act requires non-attainment areas to set limits on emissions of NOx and VOCs and to show a decrease of three percent per year until the standards are attained. **Table 9** shows the overall target emissions and mobile transportation emissions budgets for NO_x and VOCs.

EPA proposed and adopted new standards for ozone and particulate matter. The new, more stringent standards are being reviewed by Congress to determine whether they constitute an unfunded mandate to state and local governments. The new ozone standard would likely require additional VOC and NO_x emissions reductions. Since no data on ambient air quality for particulate matter as small as .5 microns have been collected, no additional requirements would result over the short-term.

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[2] MWCOG. (January 23, 1997). Draft Phase I Ozone Attainment Plan State Implementation Plan Revision for the Washington DC-MD-VA Area.

Table 8: Criteria Pollutants of Concern in the Washington Area					
Pollutant	**Description**	**Impact**	**Auto/Truck Emissions**	**Air Quality Standards**	**Northern Virginia**
Carbon Monoxide (CO)	Colorless and odorless, formed during the incomplete combustion of all fossil fuels.	Affects a person's ability to deliver oxygen to vital tissues.	Car =20.36g/mi Truck = 27.46g/mi	8 hr = 9ppm* 1hr= 35ppm*	8 hr max = 5.4 ppm; 1 hr max = 8.2 ppm
Nitrogen Oxide (NO_x)	Formed by the combustion of fossil-fuels and causes a brown-yellow haze.	Can irritate lung and lead to bronchitis, pneumonia, and lower the ability to resist respiratory infections.	Car =1.61g/mi Truck=2.05g/mi	Annual arithmetic mean = 0.053ppm	.026 ppm
Ozone (O_3)	Caused when NOx and VOCs are cooked in the sun. Result is ground level ozone or smog. Not to be confused with the stratospheric layer of ozone which protects the earth from the sun's radiation.	Causes irritation to the respiratory track, aggravates asthma, reduced lung function, and has been know to cause permanent lung damage.	N/A	1hr = 0.12 ppm**	0.125 ppm Non-Attainment Area
Particulate Matter	Dust, smoke and soot suspended in the air. Most transportation particulates come from diesel trucks.	Respiratory Irritant	Car =.04 g/mi Diesel Truck/ Bus: 0.17 g/mi	Annual arithmetic mean = 50 µg/m3	20-23µg/m3
Sulfur Dioxide	Oxidized sulfur, primarily from burning coal.	Contributor to acid rain	Car =.07g/mi Truck=.23g/mi	Annual arithmetic mean = 0.03; 24 hr = 0.14 ppm	annual = 0.009 ppm; 24 hr = .053 ppm
Volatile Organic Compounds (VOCs)	Also known as hydrocarbons, they are caused by fuel combustion in cars/trucks, evaporation of solvents and gasoline, and petroleum refining.	Is know to be a precursor to the formation of ozone.	Car = 2.57g/mi Truck=3.20g/mi	Regional Emissions Targets: 1990 = 527 1996 = 376 1999 = 360 tons/day	Virginia Emissions Targets: 1990 = 228 1996 = 164 tons/day

**Not to be exceeded more than once a year*

***Expected number of exceedance days shall not be more than one per year (3 yr. avg.)*

Table 9: Ozone Precursor Emissions Targets (tons/day)				
	Regional Emissions Targets	Virginia Emissions Targets	Mobile Budget	
			Region	Virginia Component
VOC	1990 = 527 1996 = 376 1999 = 360	1990 = 228 1996 = 164	1996 = 137.9 1999 = 123.3	53.8
NO_x	1999 = 538	1999 = 196.8	1999 = 199.2	84.3

Regional Transportation Related Air Quality Organizations

The following chart identifies the primary organizations and committees involved in transportation related air quality issues in the Washington metropolitan area.

Table 10: Organizations Addressing Air Quality in the Washington Metropolitan Region		
Organization/ Committee	Function	Contact and Phone Number
Environmental Protection Agency (EPA)	Responsible for mandates of the Clean Air Act and establishing regulations to provide state and local compliance.	W. Michael McCabe, EPA Region III (215) 566-5000
Metropolitan Washington Air Quality Committee (MWAQC)	Consists of elected officials from localities, states, and D.C. Develops recommendations for a regional air quality attainment strategy for the Washington area. These recommendations then become part of the State Implementation Plan which goes to the EPA.	Joan Rohlfs, MWCOG (202) 962-3358
Endzone	Endzone is a public-private partnership aimed at creating an increased awareness of how people contribute to air pollution. Endzone works to inform people of health effects of ground-level ozone and promote easy and effective voluntary action to reduce air pollution.	MWCOG/Endzone, Joan Rohlfs (202) 962-3358
Virginia Department of Environmental Quality	Responsible for transportation and air quality planning.	Jim Sydnor, (804) 698-4424
Transportation Planning Board	Determines conformity of transportation plans.	Mike Clifford, MWCOG (202) 962-3312

Federal Requirements

As mentioned above, the Washington, DC region has been designated a serious nonattainment area for ground-level ozone pollution under the 1990 Amendments to the Clean Air Act. This designation was significant in that

specific requirements were placed on the Washington region, including the implementation of plans to reduce emissions of volatile organic compounds (VOCs) by 15 percent below 1990 VOC emissions by 1996 and an additional nine percent by 1999.

A number of reports are required to demonstrate conformity with federal air quality requirements. Below is a summary of the reports that are required, due dates and the issues yet to be resolved.

- Washington region classified as "serious" for ozone.
- EPA requires State Implementation Plans (SIPs) to demonstrate how emissions contributing to the formation of ozone will be reduced by 15 percent from 1990-1996, and then by 3 percent per year until the area reaches attainment standards.
- The attainment date for the Washington area is 1999, therefore, a minimum reduction in emissions of 24 percent is required from 1990-1999.
- In December, 1993, MWAQC submitted a 15 Percent Plan as the first effort to show milestone emissions reductions. EPA required revisions to the Plan.
- Both Virginia and Maryland's 15 percent plans have received conditional approval from EPA, and issues are being addressed so that the District's 15 percent plan will be approvable. If any state's 15 percent plan is disapproved, the Phase I Plan for that state cannot be considered complete.
- The post-1996 Rate of Progress Plan, also referred to as the 9 Percent Plan, (15+9=24 percent) must show how the remaining emissions reductions will be achieved by 1999.
- The 1999 Rate of Progress Plan, plus additional commitments required by EPA, plus a status report on air quality modeling are the three components of the Phase I Attainment Plan.
- In the fall of 1997, EPA promulgated the heavy duty engine rule which allowed future emissions reductions to be assumed in considering air quality conformity of regional plans and programs. MWAQC and the states were then able to submit the Phase I Attainment Plan as well as the 15 Percent Plans Revisions.

- The VOC and NOx mobile source emissions budgets in the Phase I Attainment Plan were determined by EPA in December, 1997 to be adequate for use in air quality conformity assessments.

- In April, 1998, the Phase II Plan was submitted to EPA. The Phase II Plan includes model results showing that the region would be in attainment in 1999 if ozone precursors generated in other urban areas were not transported (blown) into the Washington region.

- EPA has issued a notice of proposed rule making which proposes reductions in NOx emissions. Even if the emissions reductions associated with the proposed rule are adopted, and both the 15 Percent and 9 Percent Plans were implemented, the Washington region would be in attainment for ozone.

EPA has designated the updated 15 Percent Plan and the Phase I Attainment Plan a "complete submittal" and the mobile budgets "adequate". Acceptance of the Phase I Plan effectively established a mobile source budget for NOx emissions that had not previously existed, and also lowered the previous VOC budget for mobile sources. This change was important in the transportation planning process because it alleviates the requirement that "build" and "no build" scenarios be developed to demonstrate conformity.

Transportation Emissions Reduction Measures (TERM)

Each year COG/TPB does an air quality conformity analysis to determine if the region is staying within its emissions budgets. The conformity analysis is based on a model that calculates the change in emissions by considering regional travel forecasts, planned transportation improvements, and programs. Previous air quality conformity analyses have identified NOx emission increases associated with TIP and CLRP updates (see Section 3: Planning Context for more information on the TIP and CLRP). These increases have been mitigated each year through the development and programming of emissions-reducing measures which enabled each TIP to meet air quality conformity requirements. These measures are called Transportation Emissions Reduction Measures (TERMs, formerly called Transportation Control Measures, or TCMs). **Tables 11 and 12** show the measures adopted by the TPB to mitigate transportation emissions of NOx and VOCs in TIP years 1994-1999. Modeling for the 1999 TIP year showed the region to be within conformity for both NOx and VOC emissions, and therefore no TERMs were adopted.

Table 11: NOx Emissions Reductions from Adopted TERMS, 1992-1998

		NO_x Emission Reductions (tons per day) by:						
Adopted	**Description**	June 1999	June 2000	June 2003	June 2010	June 2020	**Total TIP Cost**	**DC/MD/VA % Share**
1998 TIP								
M-101a	Mass Marketing Campaign	-	-	0.177	0.686	0.782	$2,295,000	10/45/45
1997 TIP							97-02 TIP	
TCM 77B	Vanpool Incentives	0.26	0.26		0.26	0.28	$4.7 million	0/0/100
TCM 70B	Employer Outreach for Bicycles	0.001	0.001		0.001	0.001	$70,000	0/50/50
TCM 103	Taxicab Replacement	0.14	0.2		0.48	0.48	$4.2 million	0/100/0
M-101a	Mass Marketing Campaign					0.48	N/A	
1996 TIP							96-01 TIP	
TCM 47C	Employer Outreach	0.3	0.3		0.3	0.33	$4.27 million	10/45/45
TCM 47C	Guaranteed Ride Home	0.27	0.52		0.68	0.85	$6.59 million	10/45/45
TCM 70A	Bicycle Parking	0.01	0.01		0.01	0.01	$400,000	0/50/50
TCM 103	Taxicab Replacement					0.6		100/0/0
1995 TIP							95-00 TIP	
TCM 47	Integrated Ridesharing	0.16	0.15		0.13	0.12	$1.46 million	35/0/65
TCM 92	Enhanced Telecommunications	0.66	0.7		0.8	0.6	$2.69 million	12/0/88
TCM 24	Regional Speed Limit Adherence				1.03	1.39	N/A	

N/A = not applicable

Note: TERMs formerly referred to as Transportation Control Measures, or TCMs.

Table 12: VOC Emissions Reductions From Adopted TERMS, 1992-1998

Adopted	Description	VOC Emission Reductions (tons per day) by: June 1999	June 2000	June 2003	June 2010	June 2020	Total TIP Cost	DC/MD/VA % Share
1998 TIP								
M-135	Mass Marketing Campaign	-	-	0.08	0.32	0.37	$2,295,000	10/45/45
1997 TIP							97-02 TIP	
TCM 110	Vanpool Incentives	0.11	0.1		0.10	0.11	$4.7 million	0/0/100
TCM 109	Employer Outreach for Bicycles	0.001	0.001		0.00	0.00	$70,000	0/50/50
TCM 108	Taxicab Replacement	0.09	0.13		0.31	0.31	$4.2 million	0/100/0
1996 TIP							96-01 TIP	
TCM 90	Employer Outreach/Guarenteed Ride Home	0.27	0.36		0.52	0.54	$4.27 million	10/45/45
TCM 91	Bicycle Parking				0.01	0.01	$400,000	0/50/50
TCM 125	Taxicab Replacement					0.35		100/0/0
1995 TIP							95-00 TIP	
TCM 74	Integrated Ridesharing	0.07	0.06		0.05	0.05	$1.46 million	35/0/65
TCM 75	Enhanced Telecomunications	0.66	0.7		0.22	0.22	$2.69 million	12/0/88
TCM 121	Regional Speedlimit Adherance	0.29	0.26		0.20	0.28	N/A	

N/A = not applicable

Note: TERMs formerly referred to as Transportation Control Measures, or TCMs.

SECTION 5:

REGIONAL STUDIES

SECTION 5: REGIONAL STUDIES

In implementing the Intermodal Surface Transportation Efficiency Act (ISTEA) following its 1991 enactment, USDOT required the preparation of major investment studies (MIS) for certain major infrastructure projects using federal funds. In preparing a MIS, a region could carefully consider its options before recommending a particular course of action. Specifically, these MIS's helped determine how best to address mobility needs in a corridor by examining multiple modes of travel and their possible interactions. Based on this requirement, the Commonwealth of Virginia, in partnership with local and regional governments and agencies, embarked on a number of simultaneous MIS's.

While the assumption of alternatives is still required, a separate MIS document is no longer required under TEA-21. Instead the MIS document will be integrated into the metropolitan and statewide transportation planning process as part of the National Environmental Policy Act (NEPA). This change was suggested in an effort to eliminate any duplicative actions or analysis, while also making the MIS an integral part of the planning process. While no new separate MIS's will be initiated, those studies underway will be completed and are still receiving a great deal of media and public attention.

In addition to the MIS's, other studies which are more limited in scope are also underway in the region. Some of the studies focus on a particular mode or travel corridor, while others are concerned with one aspect of travel, such as safety. **Table 13** contains alphabetized information on studies that are regional in nature, demonstration projects, or new developments of particular interest.

Study Issues, Themes, and Cost

Based on the prices available for the studies listed, nearly $18 million is being spent in this region for studies alone. Most studies have not reached the recommendation phase, those that have will require billions more for engineering and construction costs. This area has some of the worst traffic problems in the country. However, the transportation budget is constrained and funds have not been identified to cover the majority of the costs to implement the study recommendations. While the region struggles to find funding for current projects, new projects move forward requiring even more funding.

During 1997, an updated analysis of the financial resources for the fiscally Constrained Long Range Plan (CLRP) was completed. This information revised costs and revenue projections in an effort to advise the Transportation Planning Board (TPB) on what steps would need to be taken to maintain a balance

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
14th Street Bridge Feasibility Study	Purpose was to consider both short and long-term improvements to the 14th Street bridge. Preferred strategy addresses congestion and safety issues primarily through street and ramp improvements. Beyond the Bridge, the study area runs to Constitution Ave. on the east, Rt. 27 and Shirley Highway on the west, and also includes a small portion of the GW Parkway on the north and Rt. 110 on the south.	Due to a request from D.C., the study was extended to include an analysis of the impacts of the improvements on D.C. streets. As a result, work was completed in June 1998 and as of August 1998, the study was in the final printing stage.	Completed	$965,000	$100 to $120 million .	Virginia Department of Transportation, Northern Virginia Office	Bill Mann, VDOT NoVA, (703) 383-2000
I-66 MIS	Purpose is to analyze multi-modal investment strategies in the I-66 corridor. Study area includes the I-66 corridor from the Beltway (east), to Rt. 15 in Haymarket (west), to Dulles National Airport (north), to Manassas (south).	In June 1998, the Policy Advisory Committee recommended six strategies to be carried forward into Screen 3. In Summer, 1998 work was underway to determine modeling assumptions for Screen 3.	October 1998	$3 Million - includes Virginia model development	TBD	Virginia Department of Rail and Public Transportation	Gary Kuykendall, VDRPT (804) 786-7948
I-95 HOV Expansion Study	Purpose is to consider expanding HOV lanes from the Prince William County line to Route 3 in Spotsylvania.	Study is expected to begin once the 1-95/395 HOV 2-3 study has been completed.	TBD	$500,000	N/A	Virginia Department of Transportation	VDOT (540) 899-4093

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
1-95/1-395 HOV 2-3 Study	Purpose is to consider reducing occupancy requirements on all or portions of I-95/395 from HOV-3 to HOV-2. Other options being considered include modifying the hours of restriction and improving access and egress. The study area includes the entire length of the HOV facility from DC to Rt. 234 in Prince William County.	Data are being collected and analyzed during Summer, 1998. Public Outreach is expected to be complete by September, 1998.	Fall 1998	$1.4 million	TBD	Virginia Department of Transportation	Larry Trachy, VDOT (804) 786-2814
Board of Trade 1997 Transportation Report Series	Purpose was to analyze 2020 CLRP. Included consideration of projected travel demand, cost of not meeting this demand, additional transportation improvements, and funding options. Emphasized the need for roads and bridges to meet changed travel patterns. The study area consisted of the TPB planning area.	The fifth, and final, report, was released in October 1997.	Completed	$300,000	N/A	Greater Washington Board of Trade with funding from several sources, including the Washington Post.	Bob Grow, Board of Trade, (202) 857-5935
Board of Trade VRE/MARC Service Integration Study	Purpose was to improve MARC and VRE operations by providing run-through service. Included analysis of cost and time savings. Study area was made up of MARC and VRE service corridors.	Study was completed in July 1998.	Completed	$100,000	N/A	Greater Washington Board of Trade	Bob Grow, Board of Trade, (202) 857-5935

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
District of Columbia Six-Year Strategic Action and Investment Program	Purpose was to identify and prioritize investments and operational strategies which could take place entirely in the next six years. Program was considered the first step in implementing the 20 year comprehensive plan. The study area was the District of Columbia.	The Executive Summary was completed and published in the Spring, 1998. The full report was in the draft stage in August, 1998.	Completed	N/A	N/A	Washington D.C. Office of Public Works	Michelle Pourciau, DC Public Works, (202) 939-8115
Dulles Corridor Innovative Intermodal System (DCIIS) Plan	A Dulles Corridor Transit Task Force was formed at Congressman Wolf's request. A congressional funding proposal for the intermodal system was proposed. This proposal included an innovative bus system which would bridge the gap between today's bus system and the rail system recommended in the 1997 Dulles Transportation Study. At the request of Secretary Ybarra, a new Dulles Corridor Task Force began meeting in July 1998. The objective of this group is to determine the most suitable means to implement bus service in the corridor as well as determine how to complete the preliminary engineering study for the rail system.	TEA-21 provides $86 million for bus and rail development in the corridor.	Completed	TBD	TBD	VDRPT	Corey Hill, VDRPT (804) 786-4443

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
Maryland Beltway MIS	Purpose is to consider improvements to portions of I-495 in Maryland. Options include HOV lanes in both directions, various transit alternatives, and roadway improvements. The study area runs from the American Legion Bridge to the Woodrow Wilson Bridge. Areas outside Beltway are also being considered for the rail corridor.	Public meetings and workshops were conducted in Spring, 1998. By August 1998, light rail had been eliminated due to right-of-way issues. During Summer, 1998, traffic modeling for transit alternatives began. Presentations of this information is planned for early 1999 with a selection of alternatives for detailed study in Fall, 1999.	2000	$2.5 Million	TBD	Maryland Department of Transportation	Maryland Hotline, MDOT, (800) 548-5026
Metropolitan Washington Council of Governments Vision Plan	Purpose is to review transportation projects and policies through 2050. Includes considering projects not currently in CLRP and developing potential funding sources. The study area is the TPB planning area.	In November 1997, the TPB released the draft vision statement, goals, objectives, and strategies as part of a comprehensive public outreach campaign. The Steering Committee will revise the information in Fall, 1998 with final approval anticipated the following winter.	On-going component of the CLRP.	Included in MWCOG annual workplan	N/A	Metropolitan Washington Council of Governments	Gerry Miller, MWCOG, (202) 962-3319
Northern Virginia 2020 Transportation Plan	Create a new multi-modal transportation plan to guide the Northern Virginia subregion to prioritize projects; ensure an interconnected, efficient transportation system; support and enhance jurisdictional comprehensive plans and land use goals; and provide a mechanism to pursue existing and new funding sources.	Public information meetings were held in Summer 1998. Preliminary testing results of draft multi-modal strategies for 2010, 2020, and beyond 2020 are expected in September, 1998.	Early 1999	N/A	TBD	Virginia Department of Transportation, Northern Virginia Office	Steve Suder, VDOT NoVA, (703) 383-2000

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
Outer Connector Study - Northeast Quad MIS (Stafford and Spotsylvania Counties)	Purpose is to consider the need for transportation improvements to the areas north and east of Fredericksburg. Study area includes the corridor from U.S Route 1 in Stafford County to U.S. Route 17 in Spotsylvania County.	The MIS was completed in December 1997. Funding is not currently available for EIS study.	Completed	$600,000	N/A	Virginia Department of Transportation	Outer Connector Hotline, VDOT, (800) 862-1386
Outer Connector Study - Northwest Quad EIS and MIS (Stafford and Spotsylvania Counties)	Purpose is to consider transportation improvements to the corridor from U.S. Route 1, north of Fredericksburg, in Stafford County to Route 3, west of Fredericksburg in Spotsylvania County.	A public hearing was held in Fall 1997, allowing the EIS to be completed. Evaluation of a supplemental EIS is being considered as a result of comments from federal agencies.	Spring 2000	$1.5 Million (includes cost of EIS)	$100 million	Virginia Department of Transportation	Outer Connector Hotline, VDOT, (800) 862-1386
Regional Mobility Panel	Purpose was to consider the region's current and future bus service mobility needs. Included reviewing funding options, the role of Metrobus, and how to coordinate bus service in the region. Study area included the WMATA transit zone.	The study was completed in December 1997. As of August 1998, an interjurisdictional funding agreement has been approved.	Completed	$285,000	N/A	Regional Mobility Panel	Rod Burfield, WMATA, (202) 962-1004

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
U.S. Route 1 Corridor MIS	Purpose was to conduct a complete and comprehensive study of the Route 1 Corridor in Fairfax and Prince William Counties. Study area included the Route 1 corridor from the Stafford County/Prince William line to the Fairfax County/City of Alexandria line.	Study was completed in March 1998. The recommended concept advocated by the Steering Committee included components of highway, transit, streetscaping, and economics. $2,500,000 for a centerline study has been included in VDOT's tentative FY99-04 Six Year Improvement Plan.	Completed	$1.2 Million	$610 million	Virginia Department of Transportation, Northern Virginia Office	Joe Langley, VDOT NoVA, (703) 383-2000
Virginia I-95/I-495/I-395 Interchange "Mixing Bowl" Congestion Management Plan	Purpose is to develop mitigation options for the anticipated traffic congestion expected to occur during the reconstruction of the "Mixing Bowl" interchange. The study area includes the entire I-95 corridor from Edsall Road to Fredericksburg.	Three subcommittees - incident management, local network operations (LNO), and transportation demand management (TDM) - were formed to evaluate options to reduce congestion and make recommendations to the Steering Committee. Recommendations have been made by the incident management and LNO committees and the Steering Committee has approved some initial projects. Recommendations from the TDM committee are expected in December 1998. Initial projects are scheduled to begin in early 1999.	Ongoing - recommended strategies are expected in December 1998	N/A	$320 million including Right of Way	Virginia Department of Transportation, Northern Virginia Office	Ken Wester, VDOT NoVA, (703) 383-2000

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
Virginia Capital Beltway Study	The purpose of the MIS was to develop and consider improvements to the Virginia portion of the Capital Beltway. The study area included the I-495 corridor within Fairfax County. The subsequent environmental assessment must be completed in order to comply with the National Environmental Policy Act (NEPA).	Express lanes, HOV lanes, and an enhanced bus network are being considered in the NEPA process. This phase will include defining the best configuration (including access & egress at local crossroads), incorporating TSM features, and defining a phasing/staging strategy to address funding and traffic maintenance issues.	The MIS was completed in January 1997. The environmental assessment is scheduled to be completed in Summer, 1999.	$4.2 million consultant contract for Phases I and II	Approx. $2 Billion	Virginia Department of Transportation	Ken Wilkinson, VDOT, (804) 371-6758
Virginia Commission on the Future of Transportation (HJR 160)	Purpose is to identify major transportation system construction projects planned during the next 25 years. Includes needs of public transportation, the amount of additional revenue required to cover these needs, and means of raising these funds. The study area is the entire Commonwealth of Virginia.	An estimate of transportation needs for the area has been prepared.	Winter 1998/1999	In-kind contributions from VDRPT, VDOT, Dept. of Aviation, and Virginia Port Authority.	TBD	Appointed Commission reporting to the General Assembly	Chip Badger, VDRPT, (804) 786-8135
Virginia Study of Consolidation of the TCC/NVTC/ PRTC/VRE (TCC Study)	Purpose is to determine and measure the costs and benefits of consolidating the planning, operating, and financing responsibilities of some or all of the TCC, NVTC, PRTC, and VRE. The study area is the Northern Virginia District.	Complete. The TCC passed a resolution in December of 1997 which encouraged enhancements to the current roles and responsibilities of the agencies but did not change their structure.	Completed in December, 1997	$90,000	N/A	TCC	Steve Suder, VDOT NoVA, (703) 383-2000

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
New Transportation Revenue Sources in the Washington Region	Due to concerns over future funding in the CLRP, the FY98 MWCOG Unified Planning Work Program (UPWP) called for a consultant study to collect and analyze information on possible new transportation revenue sources for the Washington region. The consultant will review experiences through the country with introducing new revenue sources and suggest possible approaches for the Washington region.	In May, 1998, a TPB workshop was held to discuss issues such as the region's needs, successful approaches of other areas, possible revenue sources, and next steps. In Fall, 1998, the study will move toward a process of identifying projects and investments consistent with the region's vision, identifying state/local funding sources, and deciding on the process to engage the public.	Fall 1998	60,000	N/A	MWCOG	Ron Kirby, MWCOG, (202) 962-3310
Western Transportation Corridor MIS	Purpose was to examine north-south travel needs west of Fairfax County. Study area included eastern Loudoun and Fauquier Counties, northern Stafford County, and all of Prince William County. The study area was bounded by I-95 to the south, and the Potomac River to the north.	Study was completed in September 1997 and recommended a new four-lane divided, limited access highway from I-95 to VA 7. The 1998 state budget bill directs VDOT to coordinate with federal agencies to "complete" the MIS. A report on the coordination is to be provided to the General Assembly leadership by November 1, 1998. Federal agencies (EPA, Corps of Engineers) announced in August, 1998 that analysis of the corridor must start over.	Study phase completed	$1,250,000	$0.9 -$1.1 billion (1996 dollars) depending on alignment and width of facility.	Virginia Department of Transportation	Bob McDonald, VDOT NoVA, (703) 383-2000

Table13: Regional Studies

Study	Purpose and Study Area	Status	Study Completion Date	Estimated Cost of Study	Cost of Preferred Strategy	Lead Agency	Contact Phone
Woodrow Wilson Bridge Improvement Study	Purpose was to develop replacement options for the Woodrow Wilson bridge. Included consideration of traffic congestion, operational issues, and structural problems. The study area extended from Telegraph Road, past and including Rt.1, to the Wilson Bridge, to I-295, to Maryland 210 and all roadways in between.	Both the planning and EIS phases have been completed. As of August 1998, the design phase was underway, which is expected to last two to three years. The adopted preferred concept calls for 70-foot high, 12-lane twin drawbridges. The city of Alexandria has sued to halt the process.	The Record of Decision was signed by FHWA in November, 1997.	N/A	Estimated cost of selected alternative is $1.6 Billion (in 1997 dollars). TEA-21 provides $900 million in Federal participation.	Federal Highway Administration	Woodrow Wilson Bridge Hotline (703) 519 - 9800. A Woodrow Wilson Bridge Center was established in Alexandria at 1800 Duke Street, #200.

between the CLRP's costs and revenues. Some findings specific to Virginia include:

- Additional system expansion projects could not be included in the CLRP without new revenue sources.
- Northern Virginia has sufficient revenue to cover current operations and preservation as well as those expansion projects currently listed in the CLRP.
- Expansion projects currently included in the CLRP are only some of the major highway and transit improvements under study at this time.
- Those projects currently in the CLRP do not include many of the improvements currently shown in adopted local jurisdiction comprehensive plans.
- There are concerns over "cash flow" as there are not projected future revenues available for current project needs.

The analysis showed that when the comprehensive update to the CLRP occurs in 2000, additional revenue will be necessary to operate and preserve the current highway and transit systems, as well as improve and expand them. Estimates are currently projecting an investment shortfall of $550 million per year -- a 25 to 30 percent increase over current investment levels.

The need for additional funding was also broached in MWCOG's Vision Plan. One of the plan's goals was to initiate public support and approval for a funding mechanism(s) which could be used to implement regional transportation priorities. Based on growing concern over the region's financial health, a study was initiated to identify new funding sources for the region. By reviewing the experiences of other areas when they introduced new transportation revenue mechanisms, the study will suggest the most promising approaches for this area. More information on the this study can be found in **Table 13:** Regional Studies.

Ongoing Studies in Neighboring Jurisdictions

Table 14 includes a list of studies which are currently being conducted in neighboring jurisdictions. While the study areas are not within NVTC jurisdictions, the outcome of each study may affect the regional transportation system used by Virginia's citizens.

Table 14: Ongoing Studies in Neighboring Jurisdictions			
Study	**Lead Agency**	**Contact**	**Phone**
I-270/ U.S. 15 Corridor MIS	State Highway Administration	Michelle Hoffman	(410) 545-8547
Addison Road to Largo Town Center Metrorail Extension Study	MTA WMATA	Mike Madden	(410) 767-3694
Branch Avenue MetroAccess Study	State Highway Administration	Michelle Hoffman	(410) 545-8547
Maryland Comprehensive Transit Plan	MDOT	Bruce Gartner	(410) 865-1049
Maryland U.S. 29 Busway MIS	MDOT	Michelle Hoffman	(410) 545-8547
Maryland I-495 Capital Beltway HOV Study	State Highway Administration	Sue Rajan	(410) 545-8514

Public Participation

Cooperative planning and public participation have been long-standing components of studies in Northern Virginia, as required by federal regulations. However, effectively involving the public in planning and project development poses a significant challenge. Some citizens are skeptical about whether they can truly influence the outcome of a highway or transit project and are discouraged by the complexity of the local, state and federal planning processes and requirements. The goal of public participation efforts is to provide information to the public and stimulate discussion that can influence the design and implementation of the project. This process allows planners to be aware of public concerns and collect their ideas while working to achieve consensus early in the transportation planning process, rather than run up against conflict at the end.

In addition to holding public meetings and hearings, there are a number of other mechanisms that can be used to encourage public involvement. Agencies have begun providing information on major transportation projects, such as the I-95/I-395 HOV 2-3 Study, on an Internet web page. This low cost outreach mechanism provides users with the names and phone numbers of people to contact for more information. In addition, some web sites allow users to be added to the mailing list. Another new way to encourage public participation is by setting

up informational displays at fairs throughout the region. Open houses are also being held to promote public awareness. Interested citizens can sign up at fairs, open houses or via the Internet to receive newsletters that will keep them informed as the process moves forward.

The *Urban Transportation Monitor* conducted a survey in March, 1998 comparing different methods of public participation. This national survey was conducted using information collected from nearly 70 Metropolitan Planning Organizations throughout the country. Results can be found below in **Table 15**.

Table 15: Response to Public Participation Techniques

Technique	Percent of Respondents (Agencies) Who Have Used this Technique	Extent to Which Citizens Participated (Average)	Effectiveness in Representing Interest Group Opinion (Average on Scale of 1-10)	Effectiveness in Representing General Public Opinion (Average on Scale of 1-10)
Public Hearings	82%	60 attendees	7	5
Citizen Advisory Committee	70%	28 people on Committee	6	6
Surveys	76%	1,500 respondents	5	7
Web Page	48%	1,400 hits	5	5
Newsletter	64%	1,300 on mailing list	6	6
Videos	32%	415 Viewers	5	5
Visioning Process	36%	390 participants	7	7
Open House	40%	150 attendees	7	5
Phone Hot Lines	18%	3 calls per day	6	6
Radio	54%	14,000 listeners (talk radio)	6	7
TV	54%	1,000 listeners (cable TV)	6	7

Source: *The Urban Transportation Monitor*, March 1998

According to the survey shown above, the most highly used (over 60%) methods of outreach were public hearings, citizen advisory committees, surveys, and newsletters. While sponsors of all studies in this region hold public hearings and/or meetings, many of the other techniques have also been used. For example, the I-66 MIS used newsletters to reach the public and the MWCOG Vision Plan included extensive work with the TPB Citizens Advisory Committee as well as a professional telephone survey. Web pages have also been used in

this area, such as in the I-95/395 HOV-2/3 Study. While on a national level, less than half of the responders had used web pages (possibly because this is a new technique), this approach has seen encouraging results. As the number of "hits" ranged from 500 to 4,000, this method may expand further in the next few years, as access to and familiarity with computers increases.

TRANSIT SERVICE

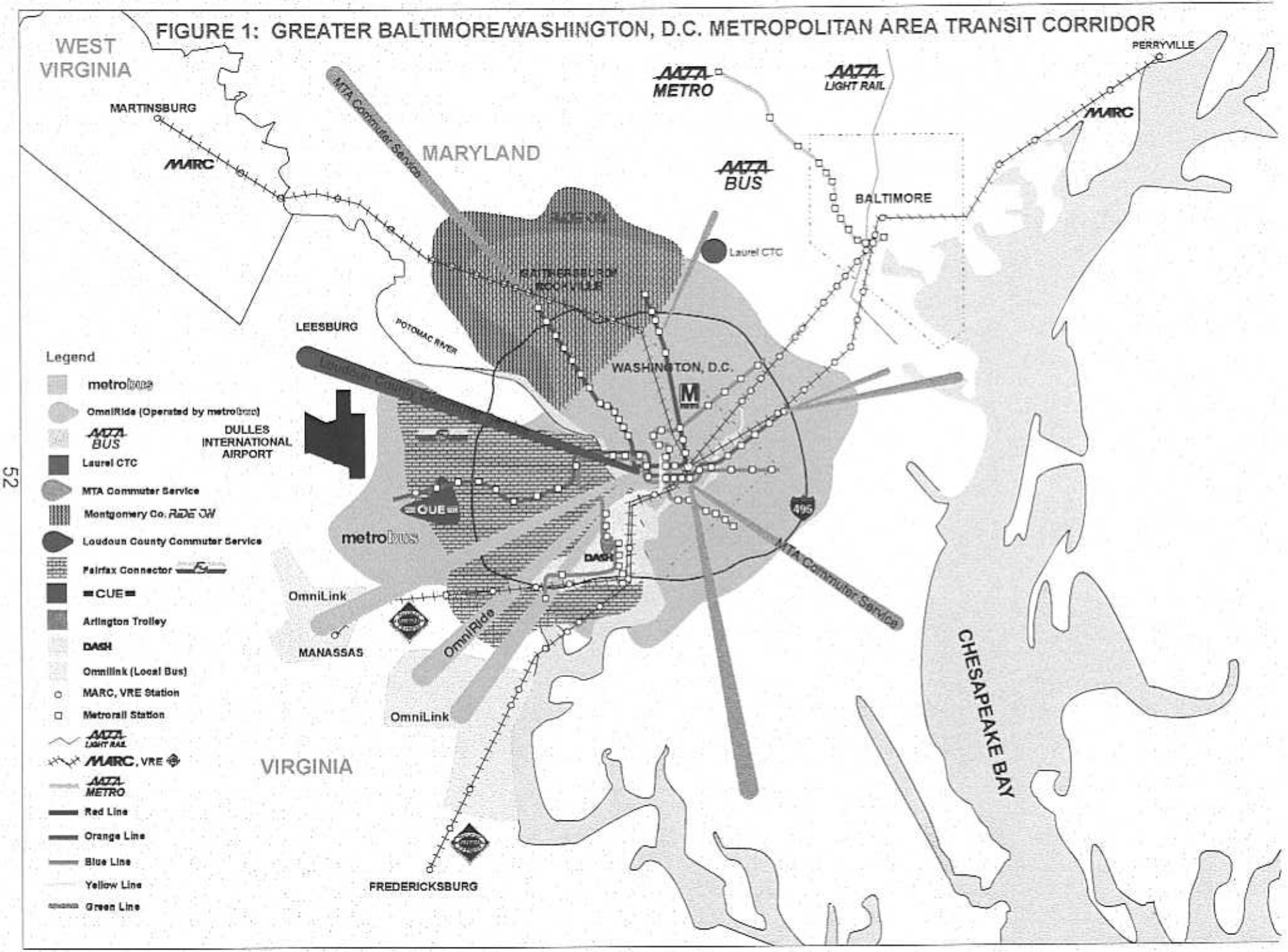


FIGURE 1: GREATER BALTIMORE/WASHINGTON, D.C. METROPOLITAN AREA TRANSIT CORRIDOR
WEST VIRGINIA
MARYLAND
VIRGINIA
MARTINSBURG
MARC
MTA Commuter Service
AATA METRO
AATA LIGHT RAIL
AATA BUS
PERRYVILLE
MARC
BALTIMORE
Laurel CTC
GAITHERSBURG
ROCKVILLE
LEESBURG
POTOMAC RIVER
WASHINGTON, D.C.
DULLES INTERNATIONAL AIRPORT
CUE
metrobus
DASH
OmniLink
OmniRide
MANASSAS
FREDERICKSBURG
CHESAPEAKE BAY
495
Legend
metrobus
OmniRide (Operated by metrobus)
AATA BUS
Laurel CTC
MTA Commuter Service
Montgomery Co. RIDE ON
Loudoun County Commuter Service
Fairfax Connector
CUE
Arlington Trolley
DASH
Omnilink (Local Bus)
MARC, VRE Station
Metrorail Station
AATA LIGHT RAIL
MARC, VRE
AATA METRO
Red Line
Orange Line
Blue Line
Yellow Line
Green Line

SECTION 6:

RAIL SERVICES

SECTION 6: RAIL SERVICES

Metrorail

Since its opening in 1976, the Metrorail system has served as the core of the region's transportation system. A comprehensive map of transit service in the region is shown in **Figure 1**, and a more detailed Metrorail map is shown in **Figure 2**. Average daily ridership by station is shown in **Table 16. Table 17** compares annual Metrorail ridership by station and jurisdiction for FY 1997 and 1998. Metrorail ridership in Virginia increased by seven percent, carrying almost 32 million passengers in FY 1998. Ridership reductions at the Huntington and Van Dorn stations were more than offset by increases associated with the opening of the Franconia-Springfieldstation. Other changes in ridership included a 26 percent increase at the National Airport station and a slight reduction in trips to and from the Pentagon, likely resulting from the dispersion of employees as the building undergoes major reconstruction.

The Metrorail system is still being constructed, with the planned 103-mile system scheduled to be completed in 2001. The Glenmont station, located on the Red Line, opened July 25, 1998 leaving only three Green Line stations still under construction. Possible expansions on the Orange Line in Northern Virginia include Dulles Airport and locations in Loudoun County, and Centerville. In addition, a station at Potomac Yard on the Blue/Yellow Line is also under consideration. Plans for Metrorail system extensions and enhancements are summarized in **Table 18**.

Virginia Railway Express (VRE)

The Virginia Railway Express is a joint commuter rail project of the NVTC and PRTC. In 1992, VRE began peak period service from Fredericksburg and Manassas into Washington DC, with stations in Alexandria, Crystal City, L'Enfant, and Union Station, as well as at suburban locations along the 81 miles of right-of-way (see **Figure 3**). In June, 1998, VRE celebrated its sixth year in operation and ten millionth customer. In FY 1998, the service carried 1.5 million passengers, with average weekday boardings averaging over 6,000 (see **Figure 4**).

The extension of HOV lanes south on I-95 to Route 234 has made the I-95 corridor the only major corridor in the region where traffic conditions improved between 1993 and 1996. Motorists using the HOV lanes prior to the restriction periods, has caused reduced VRE ridership in that corridor in FY97. This loss occurred primarily on trains that operate very early in the morning (before the

Figure 2

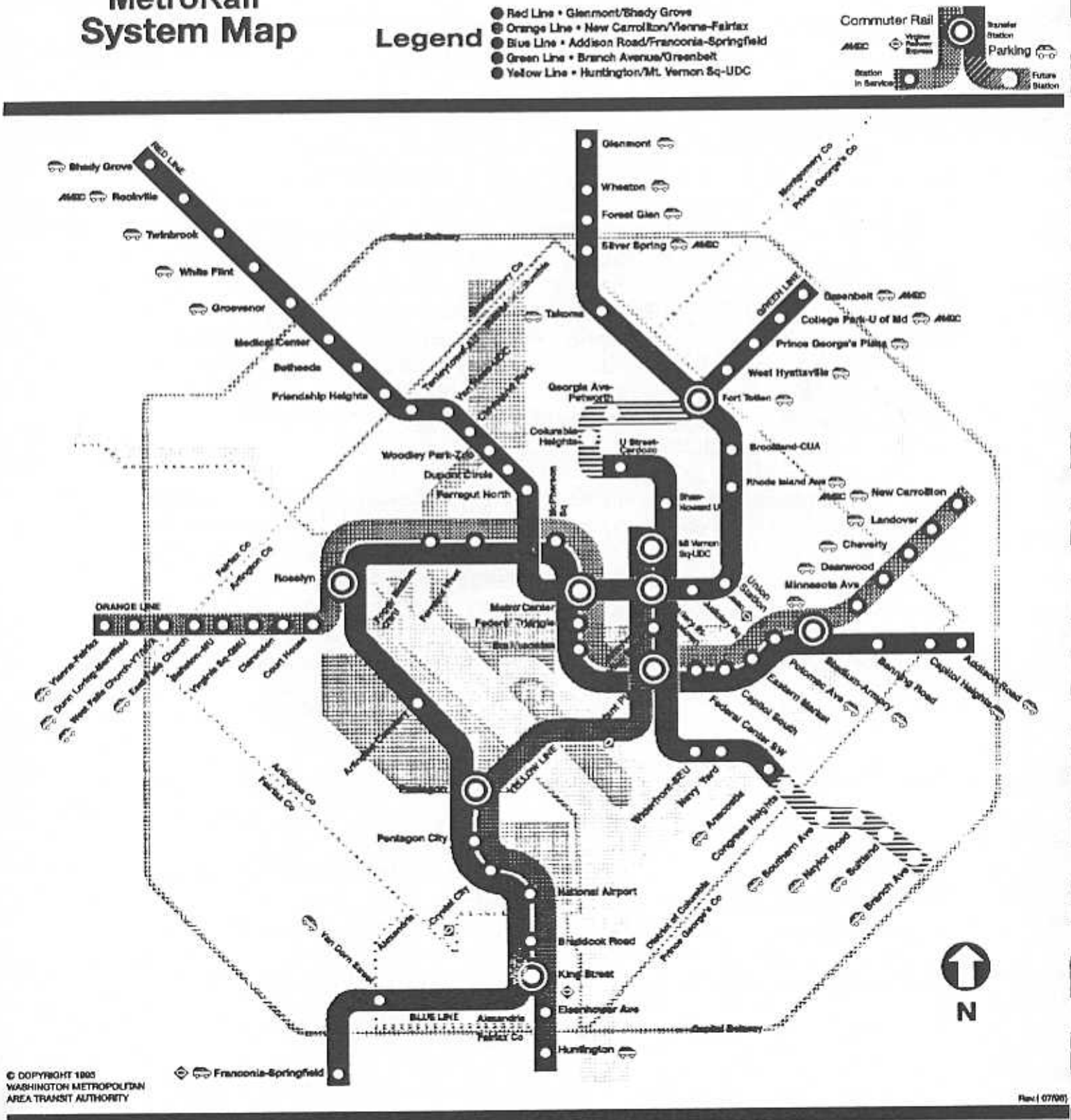

MetroRail System Map
Legend
Red Line • Glenmont/Shady Grove
Orange Line • New Carrollton/Vienna-Fairfax
Blue Line • Addison Road/Franconia-Springfield
Green Line • Branch Avenue/Greenbelt
Yellow Line • Huntington/Mt. Vernon Sq-UDC
Commuter Rail
Transfer Station
Parking
Station in Service
Future Station
Shady Grove
Rockville
Twinbrook
White Flint
Grosvenor
Medical Center
Bethesda
Friendship Heights
Glenmont
Wheaton
Forest Glen
Silver Spring
Takoma
Georgia Ave-Petworth
Columbia Heights
U Street-Cardozo
Woodley Park-Zoo
Dupont Circle
Farragut North
Metro Center
Federal Triangle
Mt Vernon Sq-UDC
Shaw-Howard U
Rhode Island Ave
Brookland-CUA
Greenbelt
College Park-U of Md
Prince George's Plaza
West Hyattsville
Fort Totten
New Carrollton
Landover
Cheverly
Deanwood
Minnesota Ave
Rosslyn
ORANGE LINE
Vienna-Fairfax
Dunn Loring-Merrifield
West Falls Church-VT/UVA
East Falls Church
Ballston-MU
Virginia Sq-GMU
Clarendon
Court House
Union Station
Eastern Market
Potomac Ave
Stadium-Armory
Benning Road
Capitol Heights
Addison Road
Capitol South
Federal Center SW
YELLOW LINE
Arlington Cemetery
Pentagon
Pentagon City
Crystal City
Van Dorn Street
Alexandria
BLUE LINE
Wiehrhouse-SEU
Navy Yard
Anacostia
Congress Heights
Southern Ave
Naylor Road
Suitland
Branch Ave
National Airport
Braddock Road
King Street
Eisenhower Ave
Huntington
Franconia-Springfield
N
© COPYRIGHT 1993
WASHINGTON METROPOLITAN
AREA TRANSIT AUTHORITY
Rev. (07/00)
No Smoking
No Food or Drinks
No Animals (except guide dogs)
No Audio or Video Devices (without earphones)
No Litter or Spitting
No Dangerous or Flammable Materials

Table 16: May 1998 Metrorail Ridership Summary
Daily Average for Total Station Entries and Exits

	Weekday	Saturday	Sunday
Stations in Alexandria			
Blue/Yellow Line Stations			
Braddock Road	6,515	2,388	1,629
Van Dorn Street	5,781	2,694	1,912
Eisenhower Avenue	1,953	689	469
King Street	8,946	5,151	3,644
Subtotal Alexandria	23,195	10,922	7,654
Stations in Arlington			
Orange Line Stations			
East Falls Church	7,273	3,372	2,124
Ballston	19,368	7,552	5,291
Virginia Square	4,568	1,450	1,021
Clarendon	5,376	1,990	1,263
Courthouse	12,977	4,669	3,356
Rosslyn	25,762	9,141	6,667
Subtotal	75,324	28,174	19,722
Blue/Yellow Line Stations			
Arlington Cemetary	3,970	4,901	7,316
Pentagon	29,813	5,740	4,025
Pentagon City	21,890	19,750	12,908
Crystal City	22,577	8,060	5,809
National Airport	9,782	5,625	7,494
Subtotal	88,032	44,076	37,552
Subtotal Arlington	163,356	72,250	57,274
Stations in Fairfax County			
Orange Line Stations			
Vienna	20,154	10,250	5,427
Dunn Loring	8,008	3,619	2,145
West Falls Church	12,452	4,382	2,764
Subtotal	40,614	18,251	10,336
Blue/Yellow Line Stations			
Huntington	14,121	5,206	3,373
Franconia-Springfield	11,560	6,686	3,760
Subtotal	25,681	11,892	7,133
Subtotal Fairfax	66,295	30,143	17,469
TOTAL Virginia	252,846	113,315	82,397
Total System Ridership	527,986	237,926	157,100

Table 17: Annual Metrorail Ridership Summary

Total Station Entries and Exits

	Weekday								
	1998	1997	% Chg	1998	1997	% Chg	1998	1997	% Chg
Stations in Alexandria									
Blue/Yellow Line Stations									
Braddock Road	1,605,000	1,542,000	4%	127,000	116,000	10%	86,000	80,000	8%
Eisenhower Avenue	480,000	507,000	-5%	39,000	35,000	10%	27,000	24,000	14%
Van Dorn Street	1,412,000	1,716,000	-18%	147,000	209,000	-30%	96,000	143,000	-33%
King Street	2,126,000	1,984,000	7%	278,000	259,000	8%	181,000	174,000	4%
Subtotal Alexandria	5,624,000	5,749,000	-2%	591,000	619,000	-4%	391,000	420,000	-7%
Stations in Arlington									
Orange Line Stations									
East Falls Church	1,782,000	1,718,000	4%	162,000	144,000	12%	116,000	108,000	7%
Ballston	4,850,000	4,690,000	3%	421,000	413,000	2%	284,000	286,000	-1%
Virginia Square	1,120,000	1,096,000	2%	77,000	72,000	7%	56,000	55,000	3%
Clarendon	1,353,000	1,310,000	3%	103,000	98,000	5%	69,000	67,000	4%
Courthouse	3,188,000	2,979,000	7%	263,000	241,000	9%	178,000	164,000	9%
Rosslyn	6,493,000	6,468,000	0%	516,000	468,000	10%	369,000	344,000	7%
Subtotal	18,785,000	18,262,000	3%	1,543,000	1,436,000	7%	1,072,000	1,023,000	5%
Blue/Yellow Line Stations									
Arlington Cemetary	783,000	633,000	24%	271,000	203,000	33%	245,000	193,000	27%
Pentagon	7,583,000	7,849,000	-3%	302,000	305,000	-1%	204,000	206,000	-1%
Pentagon City	5,396,000	5,098,000	6%	1,124,000	1,047,000	7%	683,000	624,000	9%
Crystal City	5,593,000	5,683,000	-2%	440,000	414,000	6%	297,000	288,000	3%
National Airport	2,289,000	1,821,000	26%	372,000	266,000	40%	440,000	302,000	46%
Subtotal	21,644,000	21,084,000	3%	2,508,000	2,235,000	12%	1,869,000	1,613,000	16%
Subtotal Arlington	40,430,000	39,346,000	3%	4,051,000	3,672,000	10%	2,940,000	2,636,000	12%
Stations in Fairfax									
Orange Line Stations									
Vienna	4,979,000	4,716,000	6%	435,000	383,000	14%	301,000	283,000	6%
Dunn Loring	1,979,000	1,930,000	3%	161,000	145,000	11%	108,000	104,000	3%
West Falls Church	3,002,000	2,761,000	9%	207,000	193,000	7%	149,000	139,000	7%
Subtotal	9,960,000	9,407,000	6%	803,000	721,000	11%	557,000	526,000	6%
Blue/Yellow Line Stations									
Huntington	3,452,000	3,715,000	-7%	269,000	273,000	-1%	180,000	183,000	-1%
Franconia-Springfield	2,798,000	14,000	N/A	306,000	0	N/A	200,000	3,000	N/A
Subtotal	6,249,000	3,729,000	N/A	575,000	273,000	N/A	381,000	186,000	N/A
Subtotal Fairfax	16,209,000	13,136,000	23%	1,379,000	994,000	39%	938,000	712,000	32%
TOTAL Virginia	62,263,000	58,232,000	7%	6,020,000	5,285,000	14%	4,269,000	3,768,000	13%
Bellwether Stations									
Bethesda	3,875,000	3,715,000	4%	349,000	325,000	7%	224,000	219,000	2%
Silver Spring	5,201,000	5,103,000	2%	583,000	552,000	6%	394,000	376,000	5%
Greenbelt	2,160,000	1,735,000	25%	189,000	170,000	11%	119,000	102,000	16%
New Carrollton	3,939,000	3,716,000	6%	357,000	327,000	9%	232,000	233,000	-1%
Addison Road	2,883,000	2,638,000	9%	222,000	198,000	12%	147,000	117,000	26%
Anacostia	4,320,000	3,685,000	17%	382,000	343,000	11%	247,000	222,000	11%
L'Enfant Plaza	8,280,000	8,114,000	2%	373,000	366,000	2%	253,000	241,000	5%
Smithsonian	6,054,000	5,945,000	2%	1,410,000	1,498,000	-6%	997,000	1,066,000	-7%
Farragut West	11,313,000	10,869,000	4%	311,000	308,000	1%	172,000	164,000	5%
Metro Center	11,771,000	12,244,000	-4%	1,123,000	1,029,000	9%	651,000	642,000	1%
Gallery Place	4,876,000	3,232,000	51%	826,000	352,000	135%	571,000	261,000	119%
Union Station	12,068,000	11,642,000	4%	1,292,000	1,224,000	6%	972,000	916,000	6%
Subtotal	79,780,000	72,636,000	10%	7,810,000	6,692,000	17%	5,254,000	4,560,000	15%
Total System Ridership	129,656,500	123,983,700	5%	12,226,700	11,299,400	6%	150,229,200	143,155,900	5%

Table 18: Metrorail System Expansion and Enhancements

Extensions	Line	Status	Estimated Cost	Contact Information
Glenmont Station (MD)	Red	Station opened July 25, 1998.	$293.9 million	Leona Agouridis WMATA, (202) 962-1051
Green Line Short-Cut (MD/DC)	Green	Peak period Green line trains will continue to operate through to Farragut North using the Red line track until the inner Green line stations open in December, 1999.	$400,000 *(net of revenue)*	Larry Levin, WMATA (202) 962-1251
Largo Towne Center (MD)	Blue	Extend service from Addison Rd. to Summerfield & Largo Town Center. Preliminary engineering & FEIS nearing completion.	$397 million	Dave Couch, WMATA (202) 962-1402
Dulles (VA)	Orange	MIS completed Summer, 1996; Funding strategies being pursued.	$1.4 billion	Bill LaBaugh, VDRPT (804) 786-1052
I-66 to Centreville	Orange	MIS to be completed October, 1998. Six strategies under consideration as of June, 1998.	N/A	Gary Kuykendall, VDRPT (804) 786-7948
Beltway Circumferential	TBD	One alternative being evaluated as part of the Maryland Beltway MIS, and as part of the Virginia 2020 Plan.	N/A	Gary Kuykendall, VA VDRPT (804) 786-7948 Sue Rajan, MD (410) 545-8514
Enhancements				
Railcar Purchase	System-wide	WMATA has initiated the procurement process for 80-110 railcars to be delivered in 2000 and 2001.	$164 million	R.N. Stoetzer, WMATA (202) 962-2354
Ballston Station Access Study	Orange	Identify opportunities to improve station access and pedestrian safety around the Ballston station.	TBD	Jim Hamre, Arlington, (703) 228-3698
Clarendon Metrorail Escalator Canopy Project	Orange	To design and construct a protective canopy over the Metrorail enterance.	$300,000	Jim Hamre, Arlington, (703) 228-3698
King St. Pedestrian Access	Blue/ Yellow	WMATA completed the engineering and design study in August, 1998. Recommendations will be evaluated to determine the feasibility of implementation and identify funding sources for study components.	$325,000 (study only)	Ik Hong, WMATA (202) 962-1158 or Betsy Massie, Alexandria (703) 838-3800
Artwork for Franconia-Springfield	Blue	Artwork was commissioned and installed between the station and the parking garage.	$250,000	Shlomo Shyovitz, WMATA (202) 962-1381
Kiosks/Touch Screen Demonstration	Blue	Demonstrate the use of touch screen kiosks to disseminate information at nine Metrorail stations.	$355,000	Denis Simes, WMATA (202) 962-1962
Trail Blazer Signs	System-wide	Provide improved, consistent auto and pedestrian signage to Metrorail and VRE stations.	$785,000	Rick Stevens, WMATA, (202) 962-1257
Permit Parking Program	Stations w/ park & ride lots	Program offering monthly parking passes, and guaranteed parking spaces at all Metrorail stations with cashier parking.	$335,000	Ronald Habegger, WMATA (202) 962-2028

Figure 3
VRE System Map

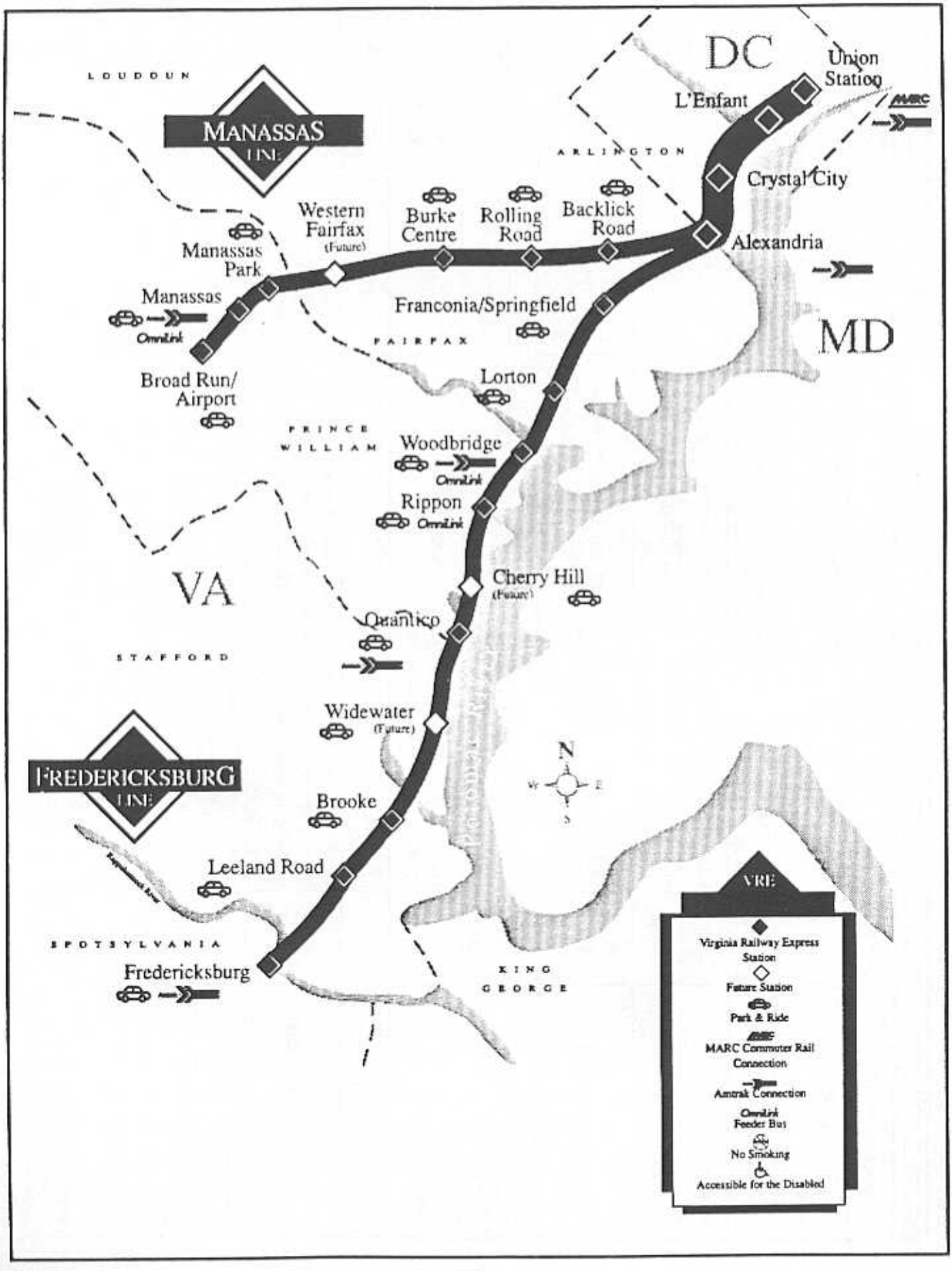
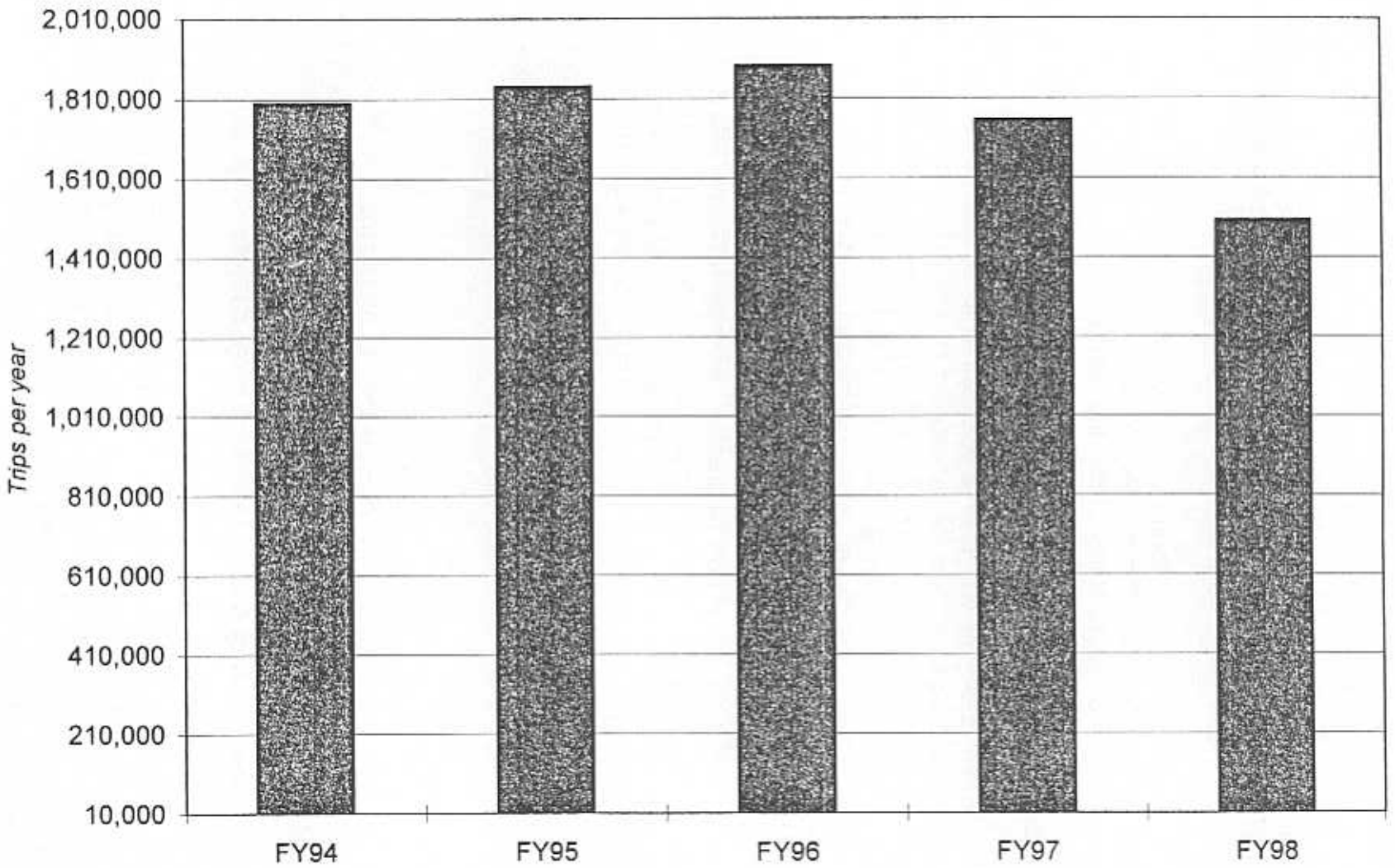


Figure 4: VRE Ridership, Fiscal Years 1994-1998



restrictions). Another factor in declining ridership was a serious CSXT derailment in July 1997. Service disruptions led to ridership declines of about 30 percent during the months immediately following the derailment. The combination of free parking at all VRE stations, additional parking spaces at the Fredericksburg station, and construction scheduled to begin on the "Mixing Bowl" where I-395/495/95 meet, is expected to increase ridership in 1999.

Another challenge facing VRE is schedule adherence. VRE track access is leased from CSXT, Conrail and Norfolk Southern railroads, which means commuter and freight trains share the same tracks. While current rail traffic demands can be met with existing capacity, repair and maintenance work increasingly results in lengthily travel delays. For example, the freight train derailment on July 8, 1997 north of Crystal City required significant track repairs. As a result, VRE was only able to operate half its scheduled service, and on-time performance dropped from an average of 90 percent to 39 percent, with some trains delayed by over an hour. With the approved acquisition of Conrail by CSXT and Norfolk Southern, freight traffic is forecast to increase along VRE's Fredericksburg Line by at least 70 percent. This means significant new investments in capacity will be required in order for VRE to expand its service in the future as demand grows.

VRE's fares remain competitive with the average price of parking an automobile in core employment locations. While the costs per trip may appear to be high on VRE, the long distances traveled by commuters (averaging 33 miles) result in costs per passenger-mile (33 cents) that are very competitive with the costs of operating a single-occupant automobile.

VRE service enhancement programs are summarized in **Table 19.**

Intercity Rail

Amtrak, which serves VRE stations at Alexandria, Woodbridge, Quantico, and Fredericksburg, offers intercity rail links to various points along the Eastern Seaboard and inland. Some intercity service has been lost due to Amtrak's budget difficulties, and as the agency comes under further financial pressure, the Commonwealth may choose to become more involved in the provision of intercity rail service.

Amtrak serves as VRE's contract operator, providing crews, mid-day storage and maintenance. Through an additional arrangement with VRE, Amtrak also provides valuable service to commuters with its scheduled intercity trains. VRE ticket holders may board certain Amtrak trains, which then stop at shared stations. Amtrak is reimbursed per passenger by VRE. This arrangement has benefited both lines, as Amtrak is provided with increased revenues and VRE is

Table 19: VRE Service Enhancements

Enhancements	Line	Status	Contact Information
Free Parking	System Wide	Free parking was implemented in fiscal 1998 at all stations except the Fredericksburg and Franconia-Springfield lots. Plans for free parking at the Fredericksburg lot are being pursued.	Kathy Rudd, PRTC (703) 583-7782
Free Bus Transfers	Connector, DASH, Trolley, and Metrobus	VRE passengers transfer free of charge to the following routes: Connector Routes 109, 110, 111, 202, 204, 301, 303, 304, 305, 311, and 401; DASH Routes AT2, AT5, AT6, and AT8; Metrobus Routes 18R, 18S, 23A, 28A/B, 29K, and 29N; and the Arlington Trolley.	Dale Zehner, VRE (703) 684-1001
Transit Link Pass (TLC)	VRE and Metrorail	The TLC pass is good for unlimited trips on VRE and Metrorail for one calendar month. (See Section 9: Transit Fare Policies for more information).	Howard Shock, VRE (703) 684-1001
WMATA SmarTrip Extension to VRE	System Wide	Expanding the application of the WMATA SmarTrip project to the VRE.	Howard Shock, VRE (703) 684-1001 or Heather Wallenstrom (703) 524-3328
Monthly Ticket Discounts	VRE	Monthly passes purchased at station vending machines will receive an additional five percent discount from September to December, 1998. Metrocheks may be mailed in for credit.	Howard Shock, VRE (703) 684-1001
Amtrak Express Trains	Amtrak and VRE	Riders can use their 10-trip or monthly VRE tickets on Amtrak trains, which significantly enhances VRE service throughout the week and on weekends. Approximately 300 passengers take advantage of this arrangement each day.	Dave Snyder, VRE (703) 684-1001
MARC/VRE Transfer Policy	VRE and MARC	VRE pass holders may continue onto MARC trains at Union Station, and MARC riders may board VRE trains and continue southbound at no additional cost. Currently, about 30 people take advantage of this arrangement each day.	Dave Snyder, VRE (703) 684-1001
Train Information Provider (TRIP) System	System Wide	New communication system using station audio and visual systems to disseminate information to passengers on the platform and via an automated telephone response system.	Howard Shock, VRE (703) 684-1001, or Ed Barber, (703) 524-3322
Café Cars	Select Trains	Café cars have been added to select trains on both lines, offering commuters table space, laptop plug-ins, bicycle accommodations, coffee and food service.	Dave Snyder or Howard Shock, VRE (703) 684-1001
Web Site/E-mail News Service	System Wide	Detailed information provided on web page at www.vre.org. Passengers may register to be notified via e-mail about service interruptions or delays.	Wendy Lemieux, VRE, (703) 684-1001
VRE Jump Start	Select Origins/ Destinations	Jump Start service allows passengers to take buses early on Fridays (departing around noon) to select VRE stations.	Ann King, VRE (703) 684-1001

able to, in effect, add capacity and frequency to its service without incurring the costs of running additional trains. Amtrak is currently moving ahead with plans to implement high-speed rail service in the Northeast Corridor, generally defined as between Boston, Massachusetts, and Washington, D.C. The Commonwealth of Virginia believes that this service would be of great benefit to the state, and has been discussing with Amtrak the possibility of extending that service past Washington to Richmond. In the meantime, the plans will have an impact on VRE, which stores equipment at Amtrak's Ivy City rail yard in Washington, D.C. during the day. Amtrak wishes to use this space for storage and maintenance of its high-speed equipment, and is now working with both VRE and MARC to identify alternative storage areas. As a result of this change, the cost of mid-day storage will most likely increase considerably. This was one of the factors that VRE considered in making the choice to purchase bi-level passenger cars, which can carry more passengers without increasing the need for storage space. In its new five-year contract with Amtrak, VRE has committed to investing $2 million annually to help improve storage and customer service facilities at Amtrak's Union Station (with Amtrak to provide the funds necessary to match VRE's federal grants).

SECTION 7:

BUS SERVICES

SECTION 7: BUS SERVICES

Metrobus

Over the years, as the Metrorail system has expanded, Northern Virginia's Metrobus routes have been restructured. Today, besides offering a number of primarily interjurisdictional cross-county routes, Metrobus serves as an essential and effective feeder service to the rail lines. Metrobus offers 40 lines and 129 routes in the Northern Virginia area, served by a fleet of 261 buses. During FY 98, Metrobus served over 111 million passengers system-wide, over 16 million passengers in Virginia, and provided over 33 million miles of bus service system-wide.

Despite its effective service, Metrobus is viewed as expensive. Many of the region's jurisdictions have responded to this situation by beginning their own services, to either replace local Metrobus routes with their own, or to add new service without bids from Metrobus. With the cooperation of local jurisdictions, Metrobus has been responding to these issues through initiatives identified during the Regional Mobility Panel which was established in February, 1997. Evidence of progress in this area was demonstrated by the award of the competitively bid contract for operation of PRTC's OmniRide service to WMATA in June, 1998. This $12.9 million contract provides for WMATA operation and maintenance of PRTC's 75 buses for three years at a competitive hourly rate of about $50.

Tables 20 and 21 track highest average daily and annual ridership trends between 1997 and 1998 for Northern Virginia Metrobus routes.

Regional Mobility Panel

Acknowledging that jurisdictions have increasingly opted to substitute locally controlled bus service after comparing the costs of WMATA-operated bus service, WMATA formed the Regional Mobility Panel (RMP). Composed of local government officials, business leaders and citizen representatives, the RMP was charged with two goals: identify ways to stabilize and enhance bus services in the National Capital region, and propose an action plan to ensure long term, reliable, predictable and adequate funding for the WMATA Replacement and Rehabilitation Program.

After careful review of the existing bus system, the Panel recommended a comprehensive program aimed at establishing and strengthening regionally coordinated bus service. The recommendations identified below were adopted by the WMATA board in October, 1997:

Table 20: Northern Virginia Average Daily Metrobus Ridership, May 1998

Highest Daily Average for Registering Farebox Reported Passenger Boardings

	Weekday	Saturday	Sunday
Ballston Terminal Services			
1B,B/,C,D,E,F,F/,Z,Z/	2,822	1,451	673
2A,B,B/,C,G	3,106	1,563	587
10B,B/,C,D	3,229	2,379	1,213
22A,B,B/,F	2,436	0	0
23A,B,C,C/,T,T/	3,600	2,602	1,146
24M,P	685	245	0
25A,A/,F,F/,G,J,P,P/,R	1,835	239	325
25B	865	589	0
38B	998	1,089	454
Subtotal	19,576	10,157	4,398
Rosslyn Terminal Services			
3A,B,C,E,F	2,656	888	516
4A,B,E,H,S	2,066	605	424
Subtotal	4,722	1,493	940
Pentagon Terminal Services			
7A,A/,C,E,F,H,P,W,X	4,394	1,667	943
8S,W,X,Z	1,265	0	0
9A,B,C,C/,E	3,151	2,896	1,775
10A,A/,E	2,022	1,264	706
13A,B,F,G,M	887	236	327
16A,B,B/,C,D,E,F,G,J	6,971	3,456	2,483
16S,U,W,X	1,830	0	0
17 Series	1,702		
18 Series	1,355	0	0
21A,B,C,D,F	821	0	0
28F,G	577	0	0
29C,E,H,X	1,664	0	0
Subtotal	26,639	9,519	6,234
Other Terminal Services			
2W	241	0	0
3W,Z	349	0	0
11P,P/	68	0	0
11Y	129	0	0
12 Series	1,256	0	0
15K,L	588	0	0
20 Series	487	0	0
24T	152	0	0
28A,B,B/	3,710	2,451	1,635
29K,N,N/	1,664	0	0
Subtotal	8,644	2,451	1,635
Metrobus Total-Virginia	59,581	23,620	13,207
Metrobus Total-System	416,540	188,640	109,660

Table 21: Northern Virginia Metrobus Ridership Summary, FY 97 - FY 98

Highest Annual Average for Registering Farebox Reported Passenger Boardings

	FY 98	FY 97	% Chg	FY 98	FY 97	% Chg	FY 98	FY 97	% Chg
Ballston Terminal Services									
1B,B/,C,D,E,F,F/,Z,Z/	710,000	728,000	-3%	89,000	78,000	15%	37,000	44,000	-17%
2A,B,B/,C,G	745,000	751,000	-1%	89,000	75,000	19%	62,000	52,000	19%
10B,B/,C,D	787,000	815,000	-3%	135,000	109,000	24%	73,000	56,000	30%
22A,B,B/,F	599,000	574,000	4%	0	0	0%	0	0	0%
23A,B,C,C/,T,T/	902,000	915,000	-1%	122,000	107,000	14%	72,000	72,000	-1%
24M,P	186,000	195,000	-5%	14,000	11,000	26%	0	0	0%
25A,A/,F,F/,G,J,P,P/,R	419,000	396,000	6%	11,000	11,000	0%	24,000	25,000	-6%
25B	261,000	260,000	1%	34,000	30,000	13%	0	0	0%
38B	274,000	297,000	-8%	56,000	49,000	13%	27,000	29,000	-7%
Subtotal	4,882,000	4,931,000	-1%	550,000	469,000	17%	294,000	278,000	6%
Rosslyn Terminal Services									
3A,B,C,E,F	644,000	631,000	2%	56,000	53,000	7%	36,000	35,000	2%
4A,B,E,H,S	493,000	493,000	0%	35,000	33,000	7%	28,000	27,000	4%
Subtotal	1,137,000	1,124,000	1%	91,000	86,000	7%	64,000	62,000	3%
Pentagon Terminal Services									
7A,A/,C,E,F,H,P,W,X	1,058,000	1,250,000	-15%	96,000	76,000	26%	47,000	42,000	11%
8S,W,X,Z	292,000	359,000	-19%	0	0	0%	0	0	0%
9A,B,C,C/,E	844,000	947,000	-11%	168,000	143,000	17%	95,000	96,000	-1%
10A,A/,E	559,000	534,000	5%	79,000	60,000	31%	44,000	31,000	41%
13A,B,F,G,M	232,000	260,000	-11%	15,000	17,000	-9%	14,000	12,000	14%
16A,B,B/,C,D,E,F,G,J	1,764,000	1,781,000	-1%	187,000	183,000	2%	140,000	127,000	10%
16L	0	21,000	*D			0%			0%
16S,U,W,X	460,000	487,000	-5%	0	0	0%	0	0	0%
17 Series	453,000	488,000	-7%	0	0	0%	0	0	0%
18 Series	375,000	644,000	-42%	0	0	0%	0	0	0%
21A,B,C,D,F	224,000	248,000	-10%	0	0	0%	0	0	0%
28F,G	142,000	157,000	-9%	0	0	0%	0	0	0%
29C,E,H,X	394,000	437,000	-10%	0	0	0%	0	0	0%
Subtotal	6,800,000	7,615,000	-11%	545,000	479,000	14%	340,000	308,000	10%
Other Terminal Services									
2W	57,000	56,000	1%	0	0	0%	0	0	0%
3W,Z	71,000	75,000	-6%	0	0	0%	0	0	0%
11P,P/	13,000	14,000	-8%	0	0	0%	0	0	0%
11Y	36,000	42,000	-16%	0	0	0%	0	0	0%
12 Series	257,000	276,000	-7%	0	0	0%	0	0	0%
15K,L	140,000	132,000	6%	0	0	0%	0	0	0%
20 Series	109,000	109,000	0%	0	0	0%	0	0	0%
24T	45,000	55,000	-19%	0	0	0%	0	0	0%
26G,H,H/	0	19,000	*D			0%			0%
28A,B,B/	936,000	954,000	-2%	154,000	129,000	19%	92,000	74,000	25%
29K,N,N/	356,000	382,000	-7%	45,000	40,000	13%	0	0	0%
Subtotal	2,019,000	2,099,000	-4%	200,000	170,000	18%	92,000	74,000	25%
Metrobus Total-Virginia	14,838,000	15,769,000	-6%	1,386,000	1,203,000	15%	790,000	722,000	9%
Metrobus Total-System	103,647,000	100,174,000	3%	9,340,000	8,854,000	5%	642,000	6,116,000	6%

* Discontinued

- delineation of regional and non-regional bus routes and planning responsibility;
- revision of the subsidy allocation formula;
- commitment to an aggressive cost control program;
- no layoffs of WMATA union personnel;
- commitment to develop a simplified and integrated passenger fare system;
- stabilization of regional bus service levels; and a
- commitment to seek funding needed for capital rehabilitation and replacement.

A Transit Funding Subcommittee was established to work towards the second goal of ensuring long term, reliable, predictable and adequate funding for WMATA's Replacement and Rehabilitation program. When measured in terms of ridership, WMATA maintains and operates the second-largest rail and the fourth-largest bus system in the United States. As the systems age, increasing levels of investment are required to keep the system safe and reliable.

An estimated average shortfall of $100 million per year over the next six years is needed to support purchase of new and overhaul of older railcars and buses; overhaul of station elevators and escalators; and rehabilitation of stations, structures, maintenance facilities and right-of-way. With the approval of the TEA-21 six-year federal transportation bill, approximately 60 percent of the total funding shortfall will be covered by federal funds, leaving the states and localities to make up the difference. An agreement to fund the shortfall was adopted by the WMATA Board on August 13, 1998.

Local Bus Systems

As referenced above, many local jurisdictions also provide bus service. In FY 1998, these services carried over nine million passengers in Northern Virginia. In the past, jurisdictions have found locally operated service is often less expensive than that offered by WMATA; thus, some jurisdictions have chosen to begin or expand their own systems. One of the outcomes from the Regional Mobility Panel was a classification of existing Metrobus service as "regional" or "non-regional". While the regional routes will continue to be operated by WMATA, jurisdictions may select different operators for some of the non-regional routes each year. Although none of the current Metrobus routes in Arlington County is

classified as non-regional, an evaluation and needs assessment of bus service is currently underway there which may lead to future changes in classification.

Major bus service expansions and enhancements planned for Northern Virginia are summarized in **Table 22**. **Table 23** provides system descriptions, contact names and telephone numbers. Ridership between fiscal 1994 and 1997 is shown in **Figures 5-10**, and system maps are included in **Figures 11** through **19**. For data on transit ridership and system performance, see **Table 38** in Section 11, Quantifying the Costs and Benefits of Public Transit.

Dulles Corridor Transit Plans

In June of 1996, VDRPT completed a MIS that examined transit options in the Dulles Corridor. The Policy Committee, made up of local officials, WMATA staff, and the Metropolitan Washington Airports Authority, adopted a preferred alternative calling for a 10 station, metro-like rail extension. The proposed rail line would branch out from the Orange Line at West Falls Church and run through Tysons Corner before returning to the median of the Dulles Access Road. After reaching the airport, the line would continue into Loudoun County via the Dulles Greenway, terminating at Route 772. The Policy Committee also recommended that enhanced express bus service be operated in the corridor as an interim measure. Once a funding agreement is reached, the project could be completed within 10 years with projected ridership of 115,000 passengers each day.

In August of 1996, the Commonwealth Transportation Board (CTB) voted to adopt the Policy Committee recommendations, including the enhanced express bus service during the design, funding, and construction of rail facilities. A $2 billion rail financing plan including preliminary engineering and construction costs was developed but no funding was committed. Instead, the Commonwealth agreed to provide $8.8 million for a two and a half year enhanced express bus service start-up to be operated by the Fairfax Connector. Fairfax County will contribute $5 million for the new service scheduled to begin in early 1999 (see **Table 22** for more information). In May, 1998, Congress authorized $86 million in federal funds (over five years) to expand bus service along the Dulles corridor and to plan for an eventual rail line. Specific plans for the earmarked funds will be developed and sources of state and local matching funds must be identified.

Transit plans for the Dulles corridor have inspired the formation of a number of different groups. The Virginia Secretary of Transportation convened a task force including participants from Fairfax and Loudoun Counties, the city of Fall Church, the town of Herndon, the Airports Authority, WMATA, NVTC, VDRPT, NVPDC, and CTB. The task force focus has included exploration of options for matching federal funds; structuring the controlling entity for the bus and rail systems; ways to include the private sector; and a time-line of major events/activities needed to carry out the program. The Dulles Corridor Rail Association was also formed to

Table 22: Bus Service Expansion and Enhancement Projects

New Service	Service Provider	Status	Estimated Cost	Contact Information
Express Bus Svc bet. Tysons Corner & Montgomery	Metrobus	Peak period express bus service between Tysons and Bethesda expected to start August 31, 1998	$1.75 million *(operating)*	Jim Hughes, WMATA, (202) 962-1202
Expanded Express Bus Service along the Dulles Corridor to Tysons Corner	Fairfax Connector	Expand Dulles corridor service between Reston, Herndon, and Tysons Corner to build ridership for eventual rail link. Expected start date in early 1999.	>$12 million *(operating)*	Leonard Wolfenstein, Fairfax County, (703) 324-1195
Dulles Corridor Innovative Intermodal System (DCIIS)	To Be Determined	A Dulles Corridor Task Force was formed to develop funding and implementation plans for express bus and rail service.	$172 million	Leo Bevon, VDRPT, (804) 786-1051
Falls Church Electric Bus	Metrobus	Hybrid electric buses will provide service to East & West Falls Church Metro Stations & the city of Falls Church beginning Fall, 1999.	$2.5 million *(capital & operating for 3 yrs)*	Heather Wallenstrom, NVTC, (703) 524-3328
Springfield Circulator Bus	To Be Determined	Circulator service to be provided around the Franconia-Springfield Metrorail station.	TBD	Bob Heltman, Springfield Shuttle Advisory Com. (703) 971-0531
Loudoun Shuttle Service to MARC Trains (1 yr demo)	Loudoun Transit	In July, 1998, peak period service was initiated from Loudoun County to the Brunswick and Point of Rocks MARC train stations in Maryland.	$40,000 *(operating)*	Mark McGregor, LCTA, (703) 777-2708
Greyhound Bus Facility at Franconia-Springfield Metrorail Station	Greyhound	Greyhound has leased land at the Franconia-Springfield Metrorail station for 10 years. A 360 square foot bus facility has been built and service began in the spring of 1998.	Lease Amount = $5,500/year	Alvin McNeal, WMATA, (202) 962-1240
Enhancements				
Alexandria Urban Transit Study	City of Alexandria	Study will evaluate current and future transportation needs. A scope of work & cost estimate will be developed by Oct. 1998.	TBD	Dave Ruller, Alexandria, (703) 838-3800
Arlington Transportation Service Evaluation Plan	Arlington County	To include a comprehensive analysis of bus service offered within the County and recommendations for increasing efficiency and reducing County costs.	$200,000	Cheryl Mooty, Arlington, (703) 228-3633
Bus Stop Information	Metrobus	Use technology to display next bus arrival time information at Tysons-Montgomery County express bus service stop locations.	$1,200,000	Denis Symes, WMATA (202) 962-1962
Columbia Pike Signalization	Arlington County and Metrobus	Equip buses and traffic signals with communications devices that will allow priority signals for late buses to improve schedule adherence (see Section 17 for more info).	$800,000	Kathleen Benton, WMATA, (202) 962-1034
Rosslyn Livable Communities	Arlington County	Enhance the Rosslyn station area by improving the bus facility, adding street trees and furniture, improving lighting, and adding art to the station. Greyhound began serving the station in May, 1998.	$2 million	Ronit Shafrir, WMATA (202) 962-2008
Suburban Bus Annex	Northern Virginia	Funding available, project in the planning stages	$900,000	Jim Hughes, WMATA, (202) 962-2343
Train Arrival Indicator Lights	All Service to Metrorail Stations	Flashing lights are used to alert bus drivers when trains are arriving so that they can wait for transferring rail passengers. Lights to be installed at the Ballston, Franconia-Springfield, Huntington, Vienna, and West Falls Church stations in Virginia.	$92,000	Larry Dreiband, WMATA (202) 962-2758
Tysons West Park Transit Station	Fairfax County and VDOT	The new transit station will open in early 1999, serving as the origin and/or terminal for some of the additional bus routes to be initiated in the Dulles corridor from Reston and Herndon and the Tysons-Montgomery service beginning in September, 1998.	$2,600,000	Kathy Ichter, Fairfax County, (703) 324-1100
WMATA Trip Fax	Metrobus	Allows passengers to call toll-free throughout the metro area to request that any Metrobus time table be faxed immediately.	under $50,000	Karen Lamb, WMATA, (202) 962-2790

Table 23: Description and Contact Information for Northern Virginia Public Bus Systems

Local Bus Service	Service Description	Contact for Route Planning/ Performance	Phone
Metrobus	Provides bus service in Maryland, DC, and Northern Virginia with connections to Metrorail, VRE, DASH, Arlington Trolley, and Fairfax Connector	Fred Simms *(route planning)*	(202)962-2059
Fairfax Connector	Service primarily within Fairfax County with connections to Metrorail/Metrobus/VRE/DASH	Tom Black	(703) 324-1197
Arlington Trolley	Operates along a loop in Crystal City serving Metrorail and VRE stations	Eric Smith	(703) 228-3692
Alexandria DASH	Provides service throughout Alexandria, to five Metrorail stations and the King St. VRE station	Sandy Modell or Eric Randall	(703) 370-3274
City of Fairfax CUE	Serves points in the city, George Mason University, and the Vienna Metrorail station	Paul Briggs	(703) 385-7827
Loudoun Transportation Association	Operates both fixed route and door-to-door service covering most of the county	Mark McGregor	(703) 777-2708
PRTC Omnilink	Provides feeder bus service to Rippon, Woodbridge and Manassas VRE stations, and local flex-route service in the Woodbridge/Lakeridge, Dale City, Dumfries, Manassas Park and Manassas areas	Todd Seidman	(703) 583-7782
Commuter Bus Service			
Loudoun County Commuter Service	Eight peak period buses provide service from Loudoun County to the Pentagon and downtown Washington locations	Sanjeev Malhotra	(703) 777-0246
PRTC OmniRide	Sponsored by PRTC, Omniride provides peak period service from Prince William County and Manassas to Vienna and Franconia/Springfield Metro stations as well as the Pentagon, Crystal City, and downtown Washington	Todd Seidman	(703) 583-7782

Figure 5: Alexandria DASH Ridership, Fiscal Years 1994-1998

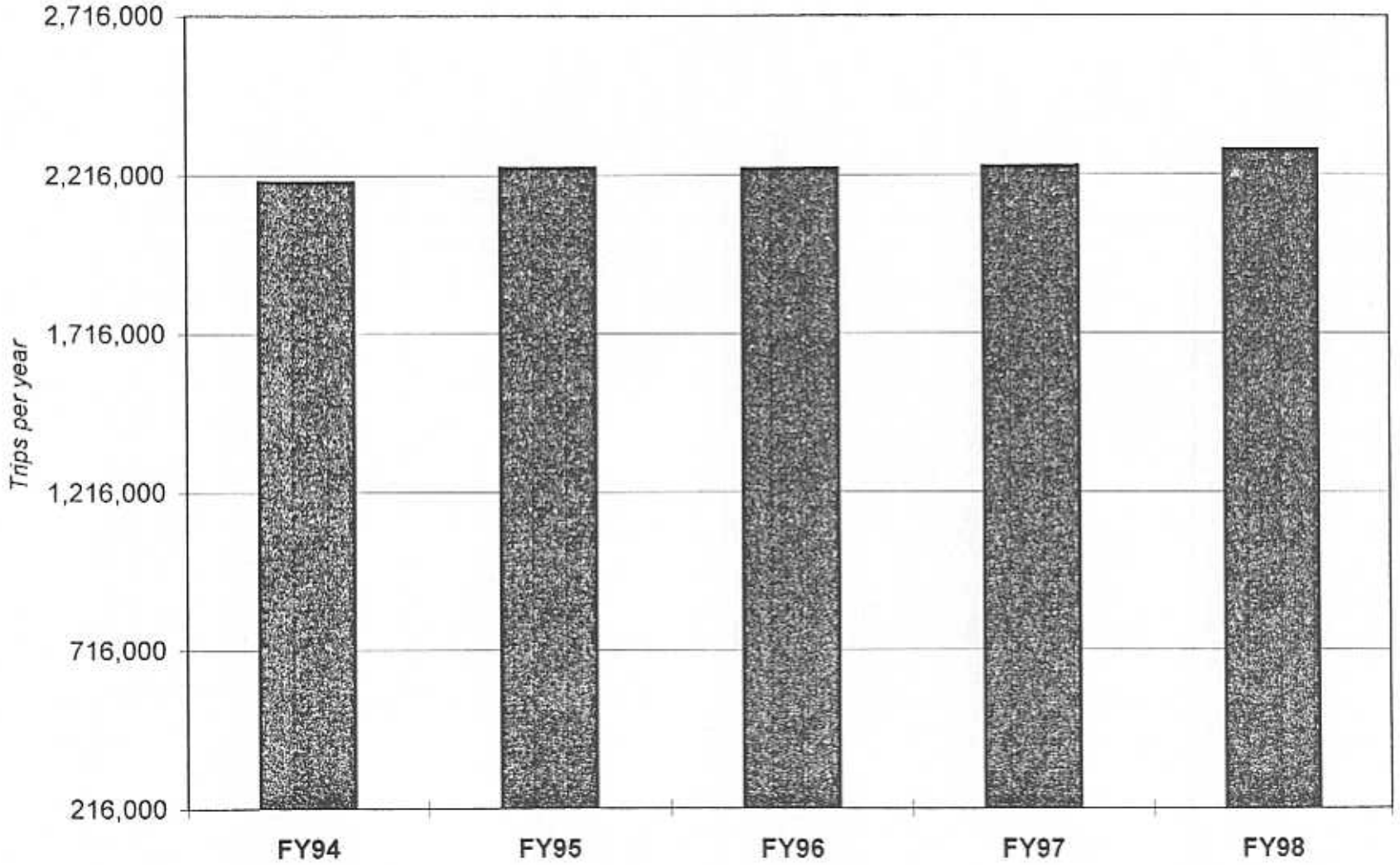


Figure 6: Arlington Trolley Ridership, Fiscal Years 1994-1998

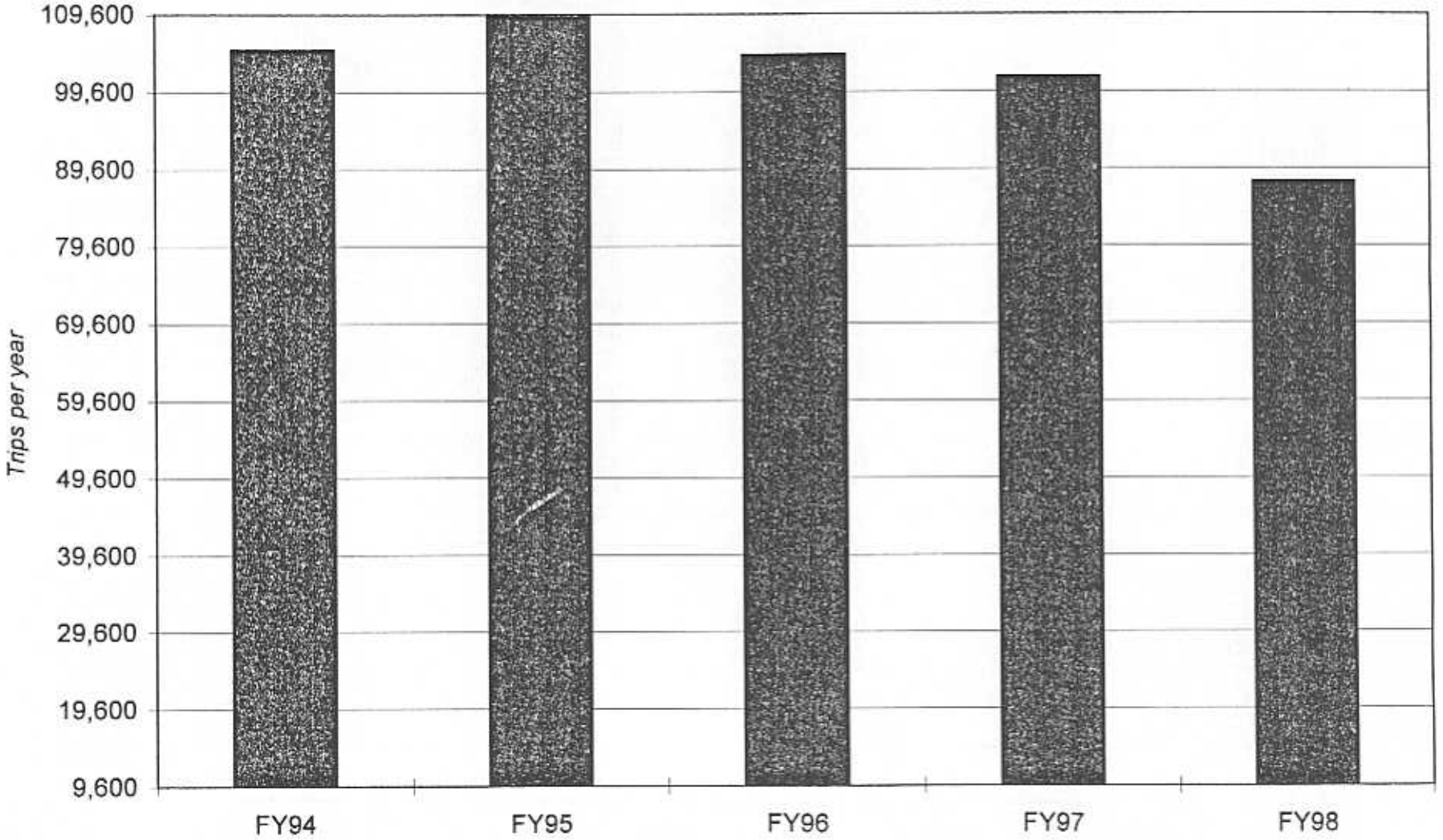
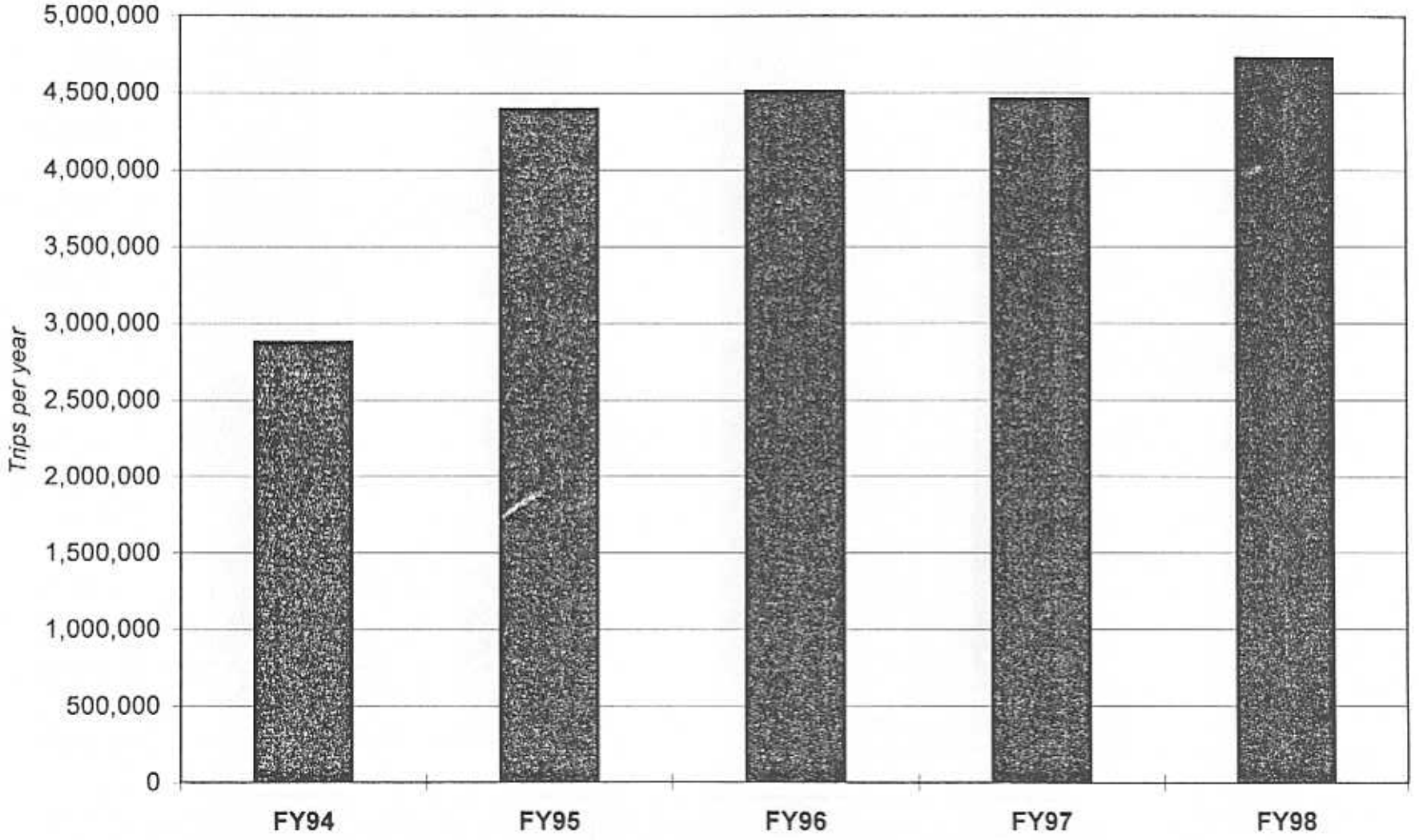
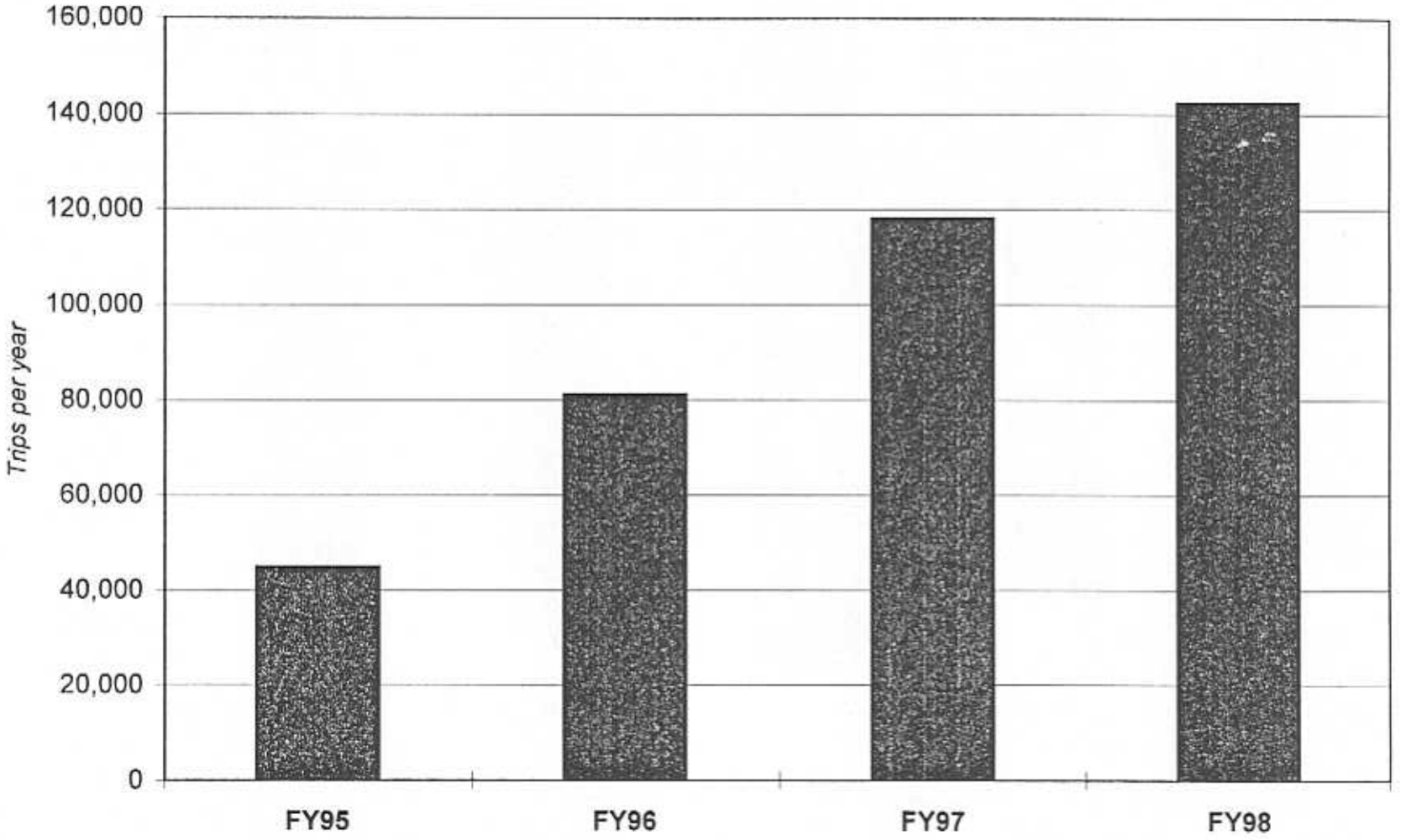


Figure 7: Fairfax Connector Ridership, Fiscal Years 94-98



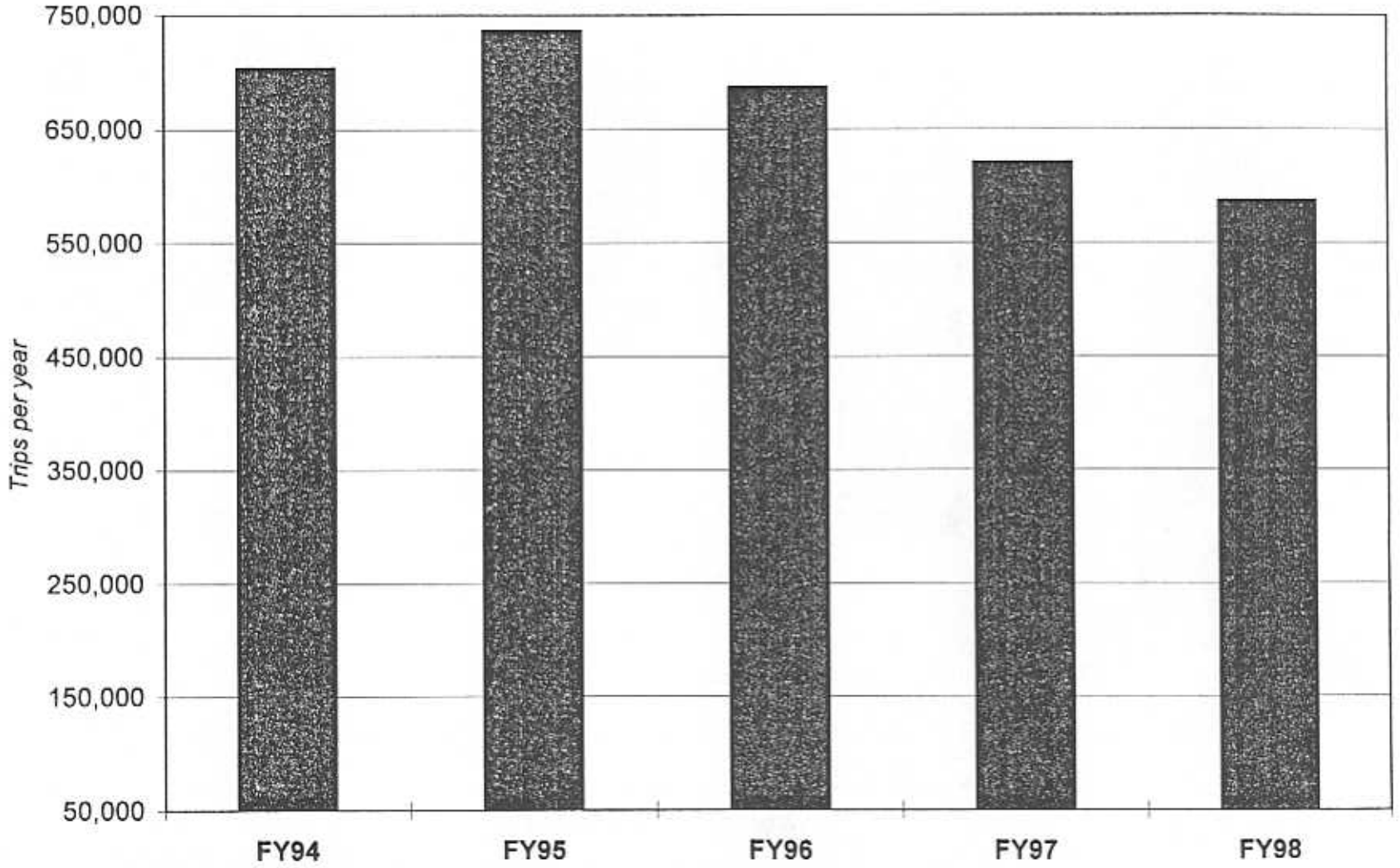
Note: In FY96 the Fairfax Connector began operating some service previously operated by Metrobus, and in FY97, service reductions were implemented in response to budgetary constraints.

Figure 8: Loudoun County Commuter Bus Ridership, Fiscal Years 1995-1998



Note: Loudoun County service increased from four to nine peak period buses between fiscal years 1995 and 1998.

Figure 9: OmniRide Ridership, Fiscal Years 1994-1998



Note: Since 1995, HOV lanes on I-95 have been extended south to Route 234 making HOV travel increasingly attractive in the corridor.

Figure 10: CUE Bus Ridership, Fiscal Years 1994-1998

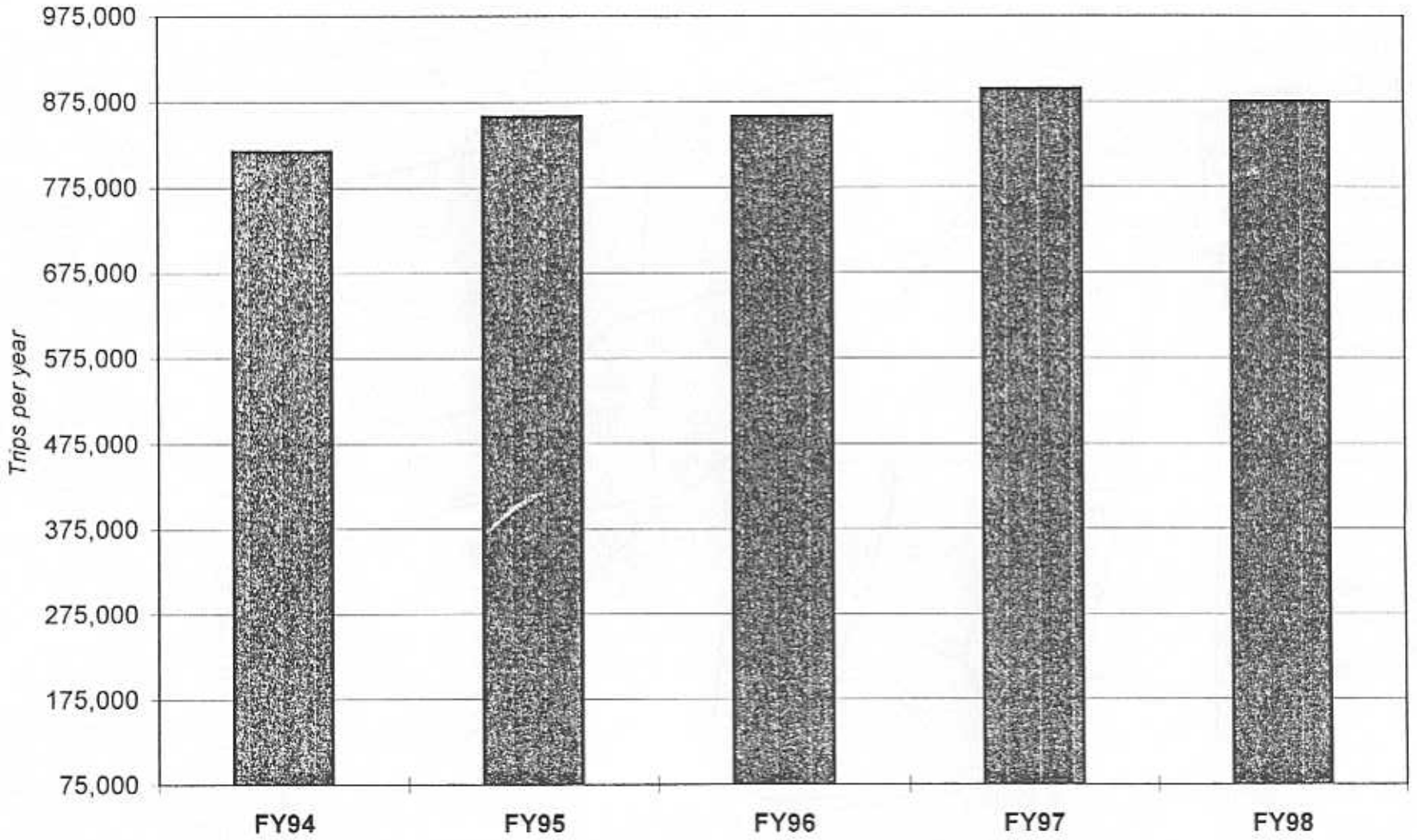
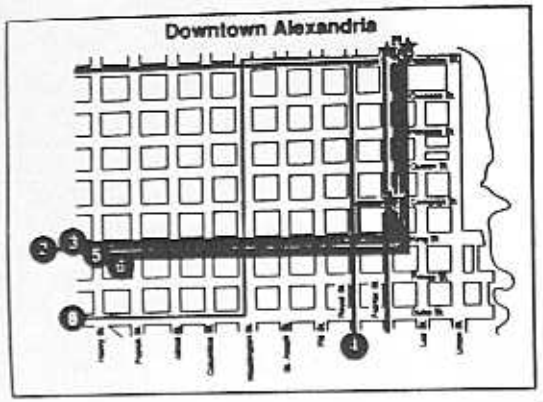
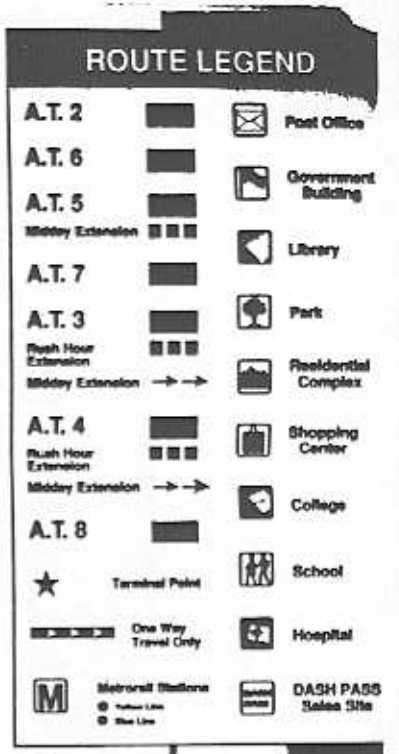


Figure 11

DASH TRANSIT MAP





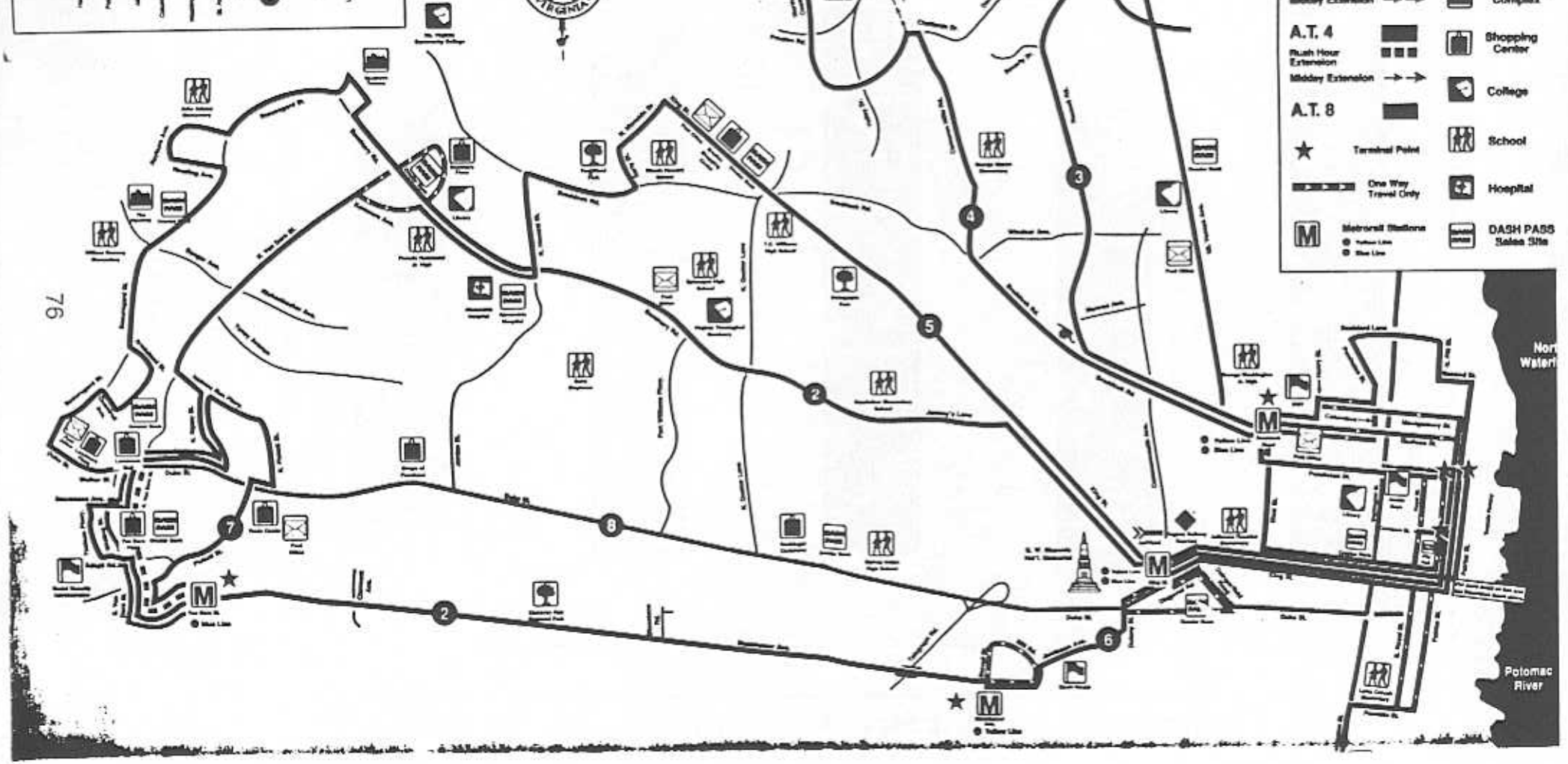


Figure 12

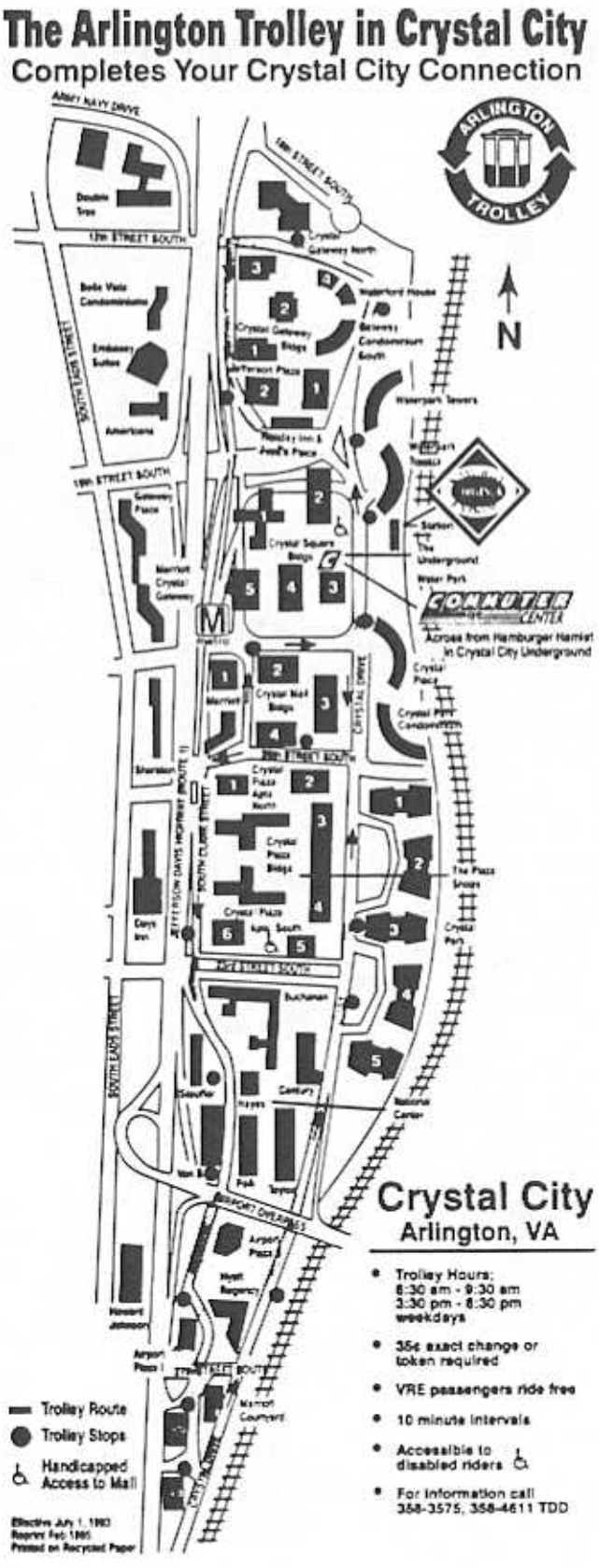
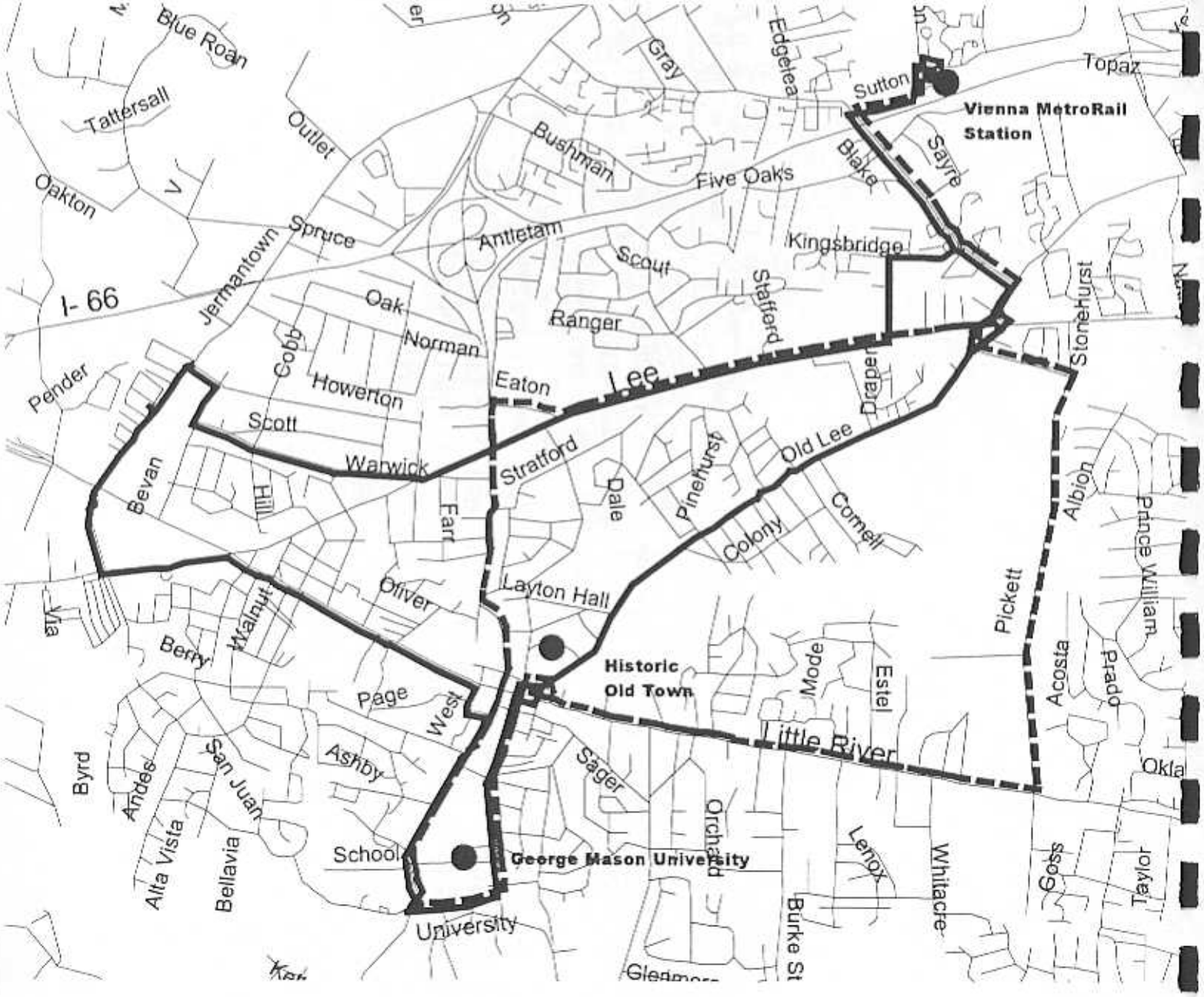

The Arlington Trolley in Crystal City
Completes Your Crystal City Connection
ARLINGTON TROLLEY
N
COMMUTER CENTER
Across from Hamburger Hamlet in Crystal City Underground
Crystal City
Arlington, VA
Trolley Hours:
6:30 am - 9:30 am
3:30 pm - 6:30 pm
weekdays
35¢ exact change or token required
VRE passengers ride free
10 minute intervals
Accessible to disabled riders
For information call 358-3575, 358-4611 TDD
Trolley Route
Trolley Stops
Handicapped Access to Mall

Figure 13

City of Fairfax CUE Bus Routes



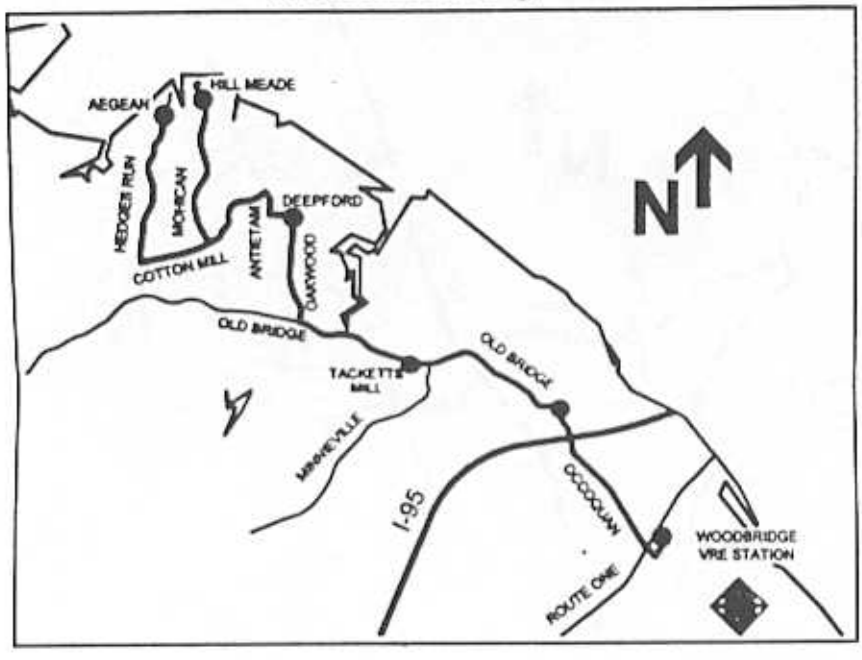
For Information call
City of Fairfax CUE Bus System
at (703) 385-7859 (Voice/TTY).

Figure 14

OmniLink Feeder Service to VRE Stations, Lake Ridge and Dale City Schedules

OmniLink FEEDER LAKE RIDGE SCHEDULE

Fredericksburg Line



OmniLink FEEDER DALE CITY SCHEDULE

Fredericksbug Line

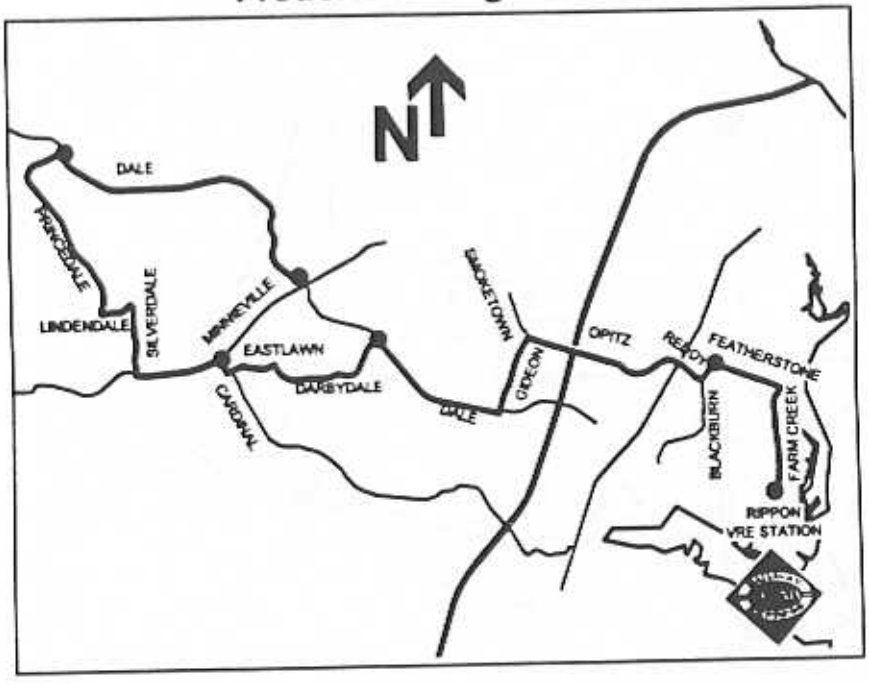
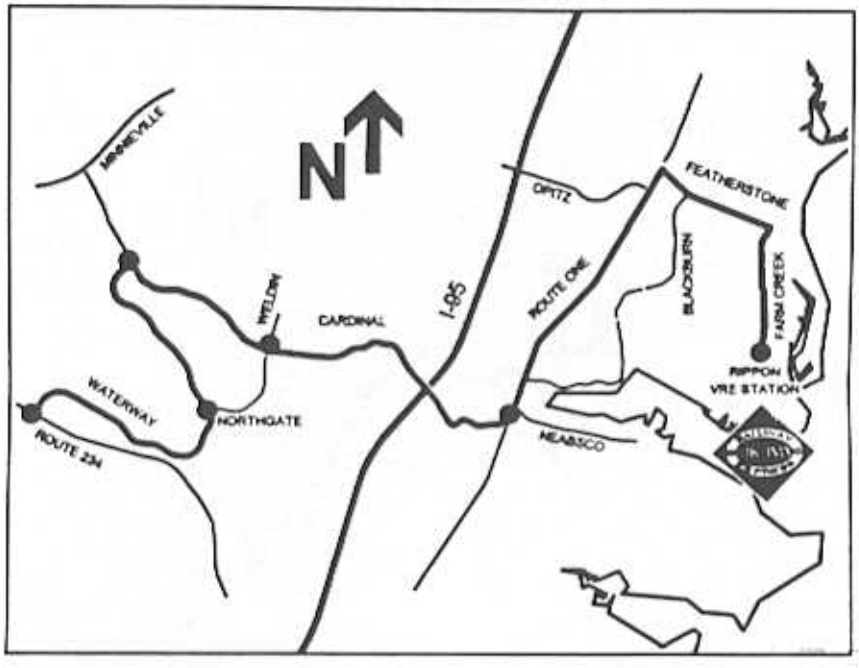


Figure 15

OmniLink Feeder Service to VRE Stations, Montclair and Manassas Schedules

OmniLink FEEDER MONTCLAIR SCHEDULE

Fredericksburg Line



OmniLink FEEDER MANASSAS SCHEDULE

Manassas Line

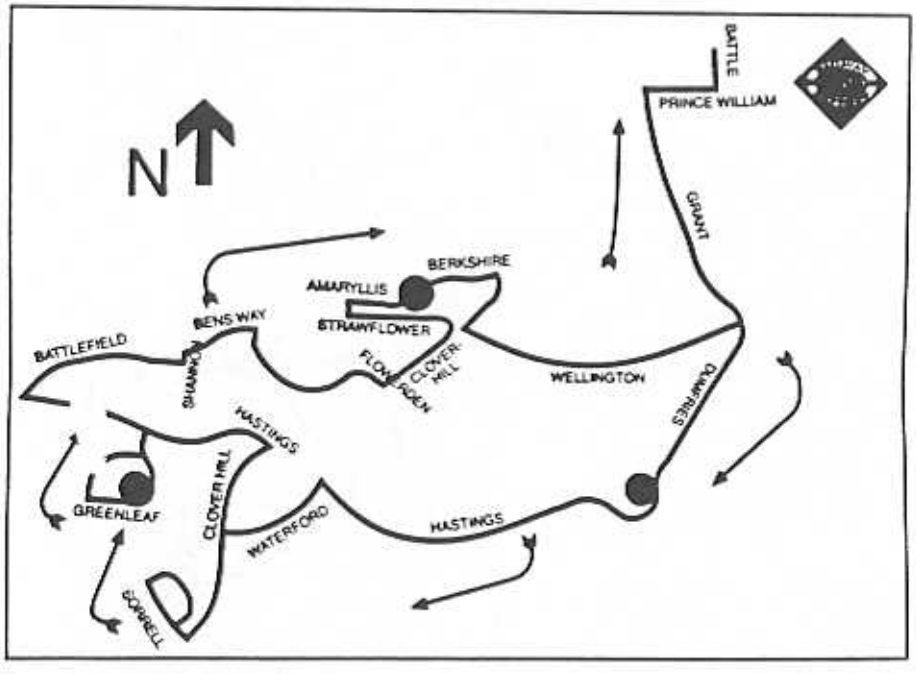
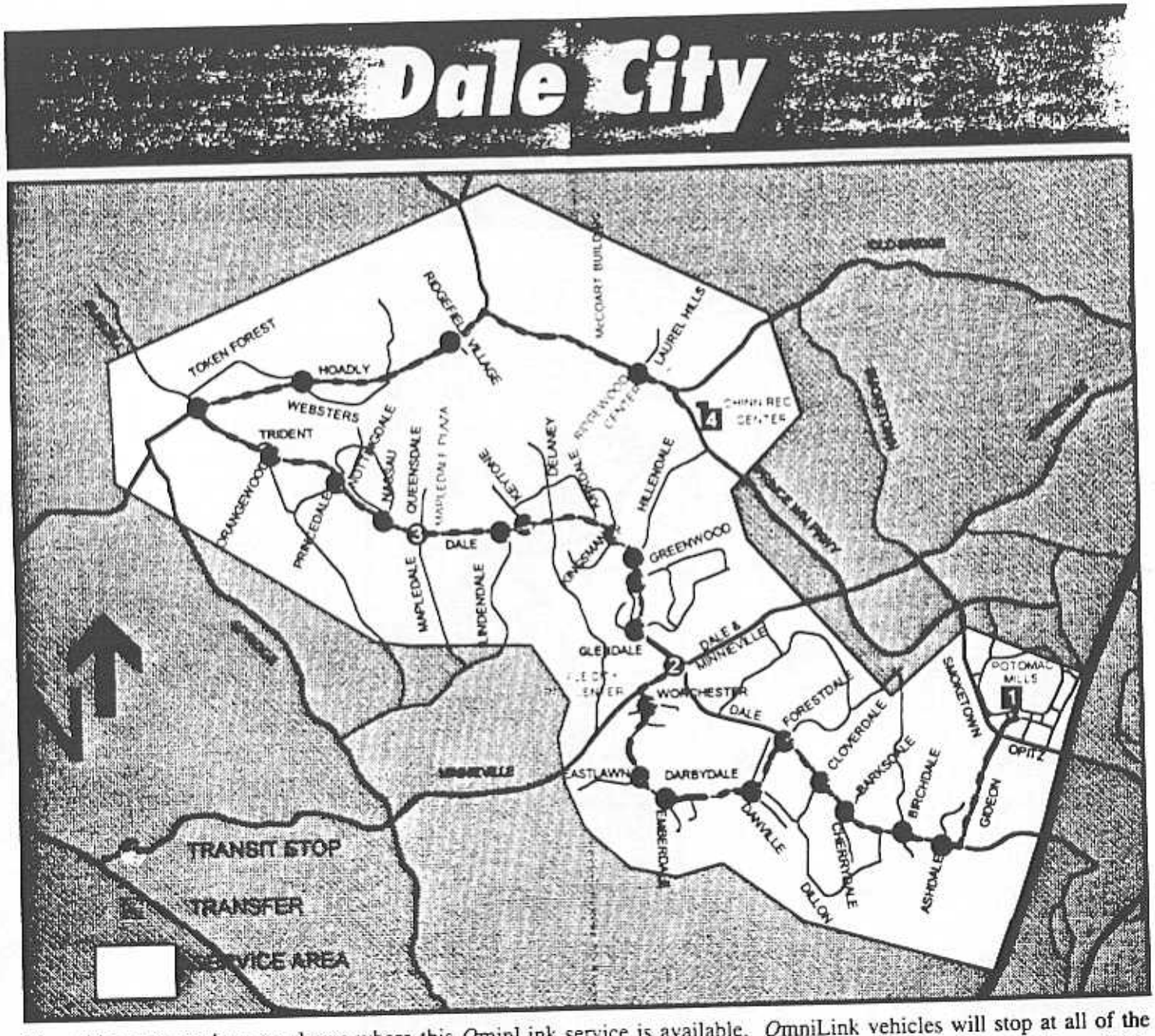


Figure 16

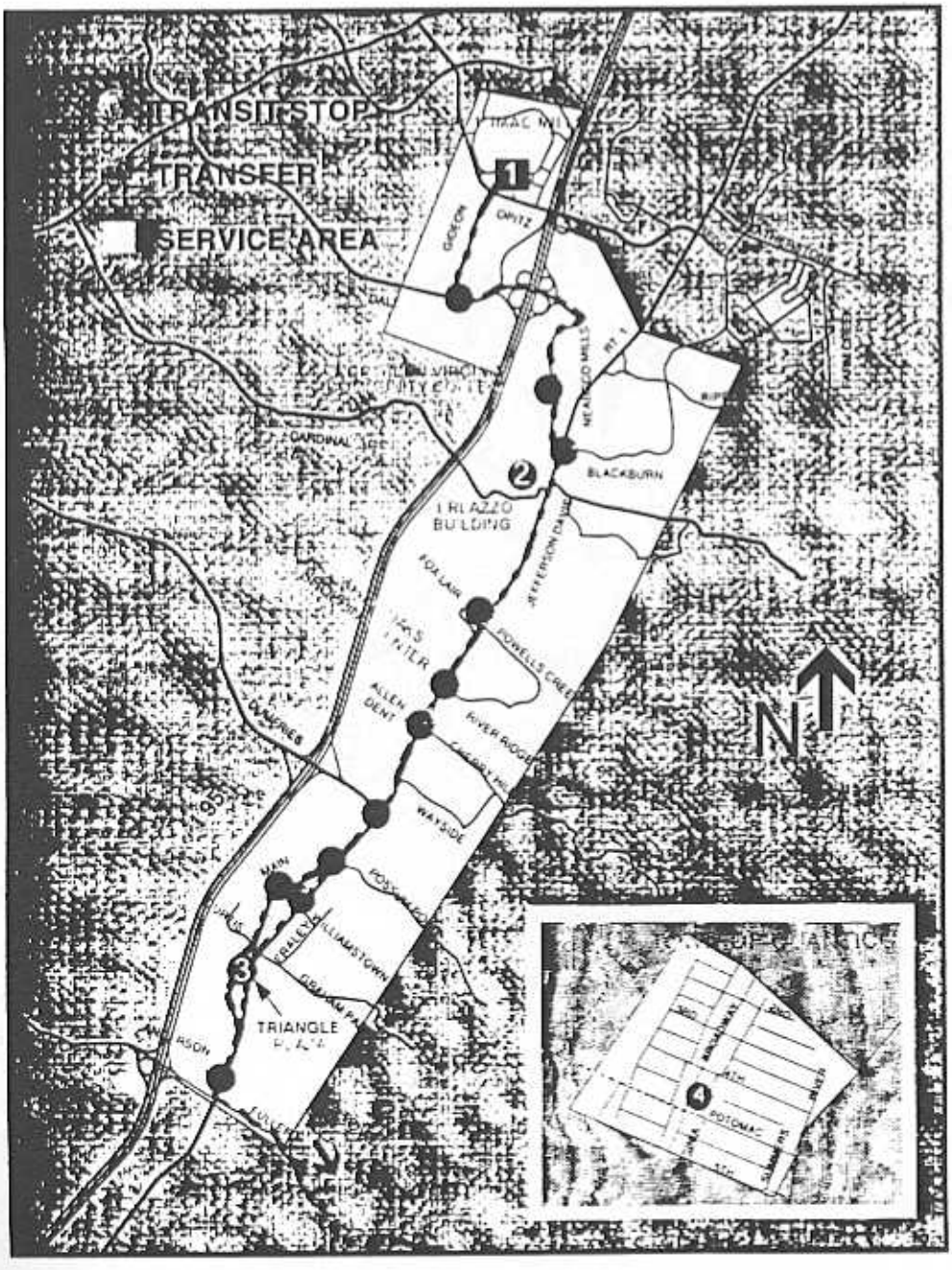
OmniLink Local Service



The white area on the map shows where this *O*minLink service is available. *O*mniLink vehicles will stop at all of the *O*mniLink stops. If you cannot get to one of the stops, or if our destination is not close to a stop, call *O*mniLink at (703) 730-OMNI to make a reservation. As *O*mniLink vehicles may not travel on the center line streets between the points shown, be sure to wait only at transit stops or reservation locations. Refer to other *O*mniLink brochures or call us to see how *O*mniLink can serve your travel needs. This schedule reads across the columns, for example, the first Potomac Mills bus departs Chinn Center at 7:32 am, then goes to Mapledale Plaza at 7:40 am, then to Dale Blvd. & Minnieville Road at 7:50 am, arriving at Potomac Mills at 8:15 am. If your stop is between two of the key stops shown on the schedule, use the time for the stop before yours as a guide and plan to arrive at your stop 5 minutes early.

Figure 17

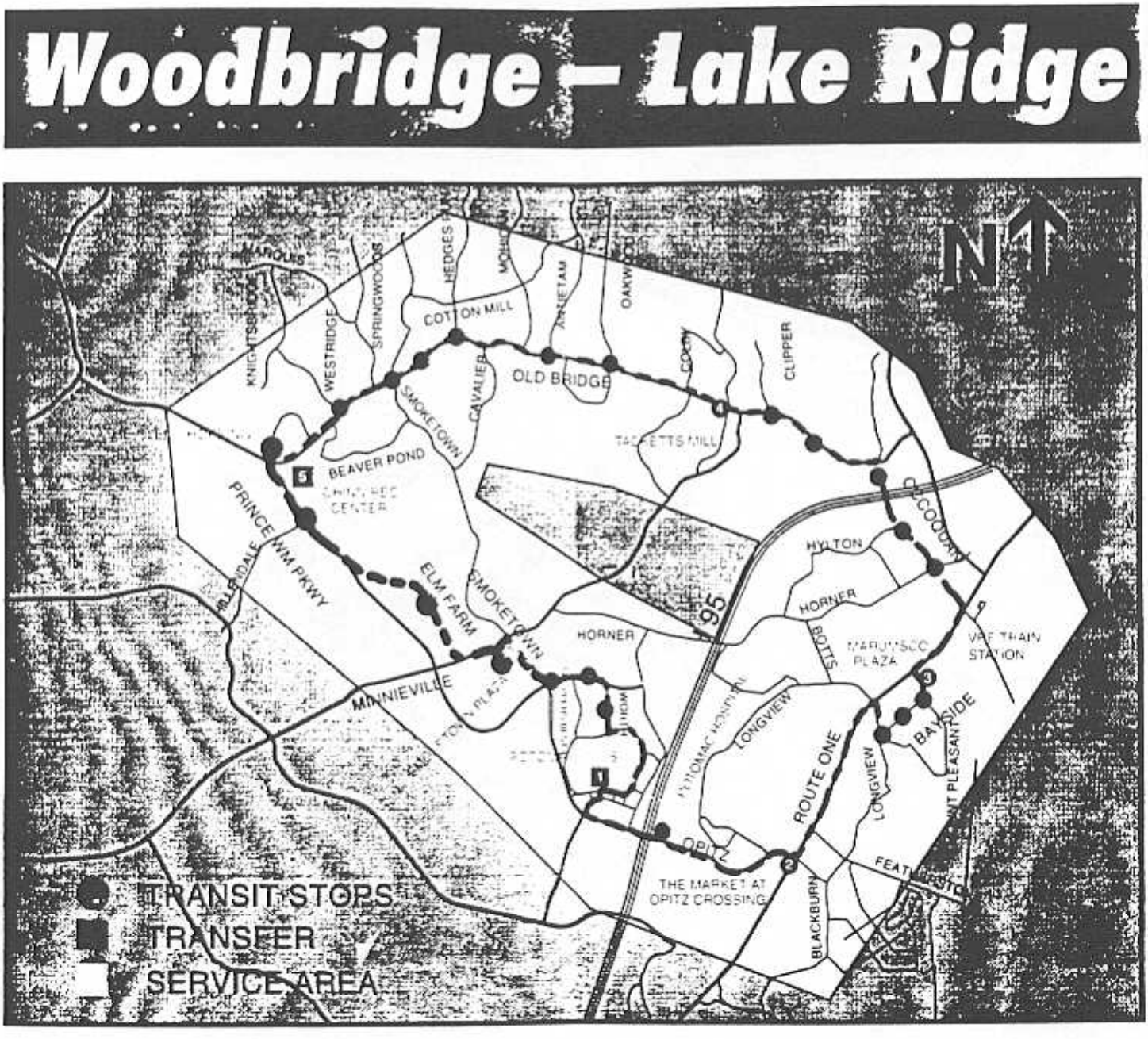
OmniLink Local Service



The white area on the map shows where this OmniLink service is available. OmniLink vehicles will stop at all of the OmniLink stops. If you cannot get to one of the OmniLink stops, or if your destination is not close to a stop, call OmniLink at (703) 730-OMNI to make a reservation. **Buses enroute to or from the Town of Quantico are not authorized to stop or deviate from the Fuller Road/ Potomac Avenue corridor to pick up or discharge passengers inside Marine Corps Base boundaries.** As OmniLink vehicles may not travel on the center line streets between the points shown, be sure to **wait only at transit stops or reservation locations.** Refer to other OmniLink brochures or call us to see how OmniLink can serve your travel needs. This schedule reads across the columns, for example, the first Potomac Mills bus leaves at 8:15 am then goes to the Ferlazzo Building at 8:29 am and continues to Triangle Plaza at 8:47 am, arriving in Quantico at 8:59 am.

Figure 18

OmniLink Local Service

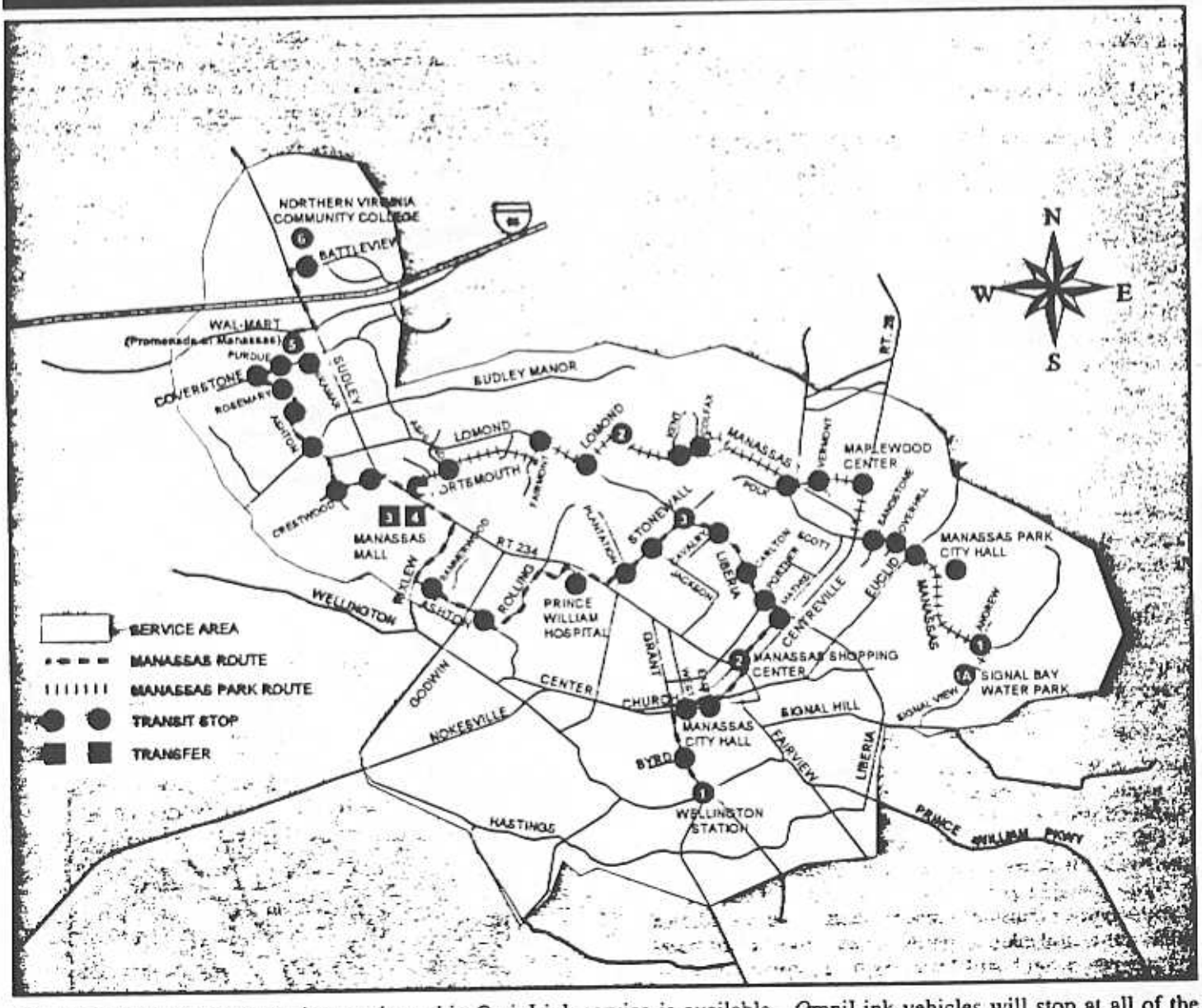


The white area on the map shows where this OmniLink service is available. OmniLink vehicles will stop at all of the OmniLink stops. If you cannot get to one of the OmniLink stops, or if your destination is not close to a stop, call OmniLink at (703) 730-OMNI to make a reservation. As OmniLink vehicles may not travel on the center line streets between the points shown, be sure to wait only at transit stops or reservation locations. Refer to other OmniLink brochures or call us to see how OmniLink can serve your travel needs. This schedule reads across the columns, for example, the first Tacketts Mill bus running counterclockwise, leaves at 7:25 am then goes to Chinn Center at 7:45 am then arrives at Potomac Mills at 8:15 am.

Figure 19

OmniLink Local Service

Manassas Park & Manassas



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coordinate the efforts of groups and individuals to speak in a unified, consistent, and persistent way to build community support for Dulles Rail. More information can be found on the organization's web site at www.dullescorridorrail.com.

Increasing the Regional Share of Federal Money

In the Washington region, WMATA, VRE, Fairfax Connector, PRTC, and Montgomery County's Ride On report National Transit Database (NTD) data (formerly Section 15 data), as required by FTA in order to receive urbanized area formula funds. The data are then used to allocate funding to the Washington region based on the amount of service provided and its cost. Every system that reports data brings additional federal money to the region (via Section 5307 of the Federal Transit Act, as amended) which is used primarily to fund WMATA's capital costs. Substantial increases in formula funds could be gained if all regional operators were to report.

In order to capture a larger share of the federal funds, NVTC has applied for and received grant funding to coordinate collection and dissemination of performance data for Northern Virginia transit operators not currently filing NTD reports. While local transit providers already collect some of the required data, additional costs would be associated with gathering passenger mile and average trip length data to fulfill NTD requirements.

Fiscal 1998 NTD reports will be submitted for Arlington Trolley, city of Fairfax CUE, Alexandria DASH, and Loudoun Commuter Service for the first time in October, 1998. It is estimated that the region would have earned an additional $800,000 in two years if reports for those four systems had been filed for fiscal 1997, which would outweigh the costs of data collection. Incremental funds allocated in fiscal 2000 (two years after the FY 1998 NTD report submission), will go to WMATA.

Commuter Bus Systems

While many of Northern Virginia's commuters use local bus systems, residents who live further from the core often avail themselves of one of the region's many publicly and privately provided commuter bus systems. Together, the services provide over 7,500 passenger trips in and out of the urban core daily, often operating out of park and ride lots. A list of the area's private commuter bus service providers, along with some of the area's vanpool operators, is provided in **Table 24**.

TABLE 24: SUMMARY OF COMMUTER BUS AND VAN POOL SERVICES, 1998

COMMUTER SERVICE	PHONE	SERVICE AREA	VEHICLES	AVERAGE DAILY BOARDINGS	FARES **
Brooks Transit Services Route 2, Box 3340 Front Royal, Va 22630	(540) 636-6148	Front Royal **TO:** CIA, Pentagon, Crystal City, Navy Annex	5 Buses	240	$35
Groome Transportation 5500 Lewis Road Sandstone, Va 23150	(804) 222-7226 (804) 222-7222	Richmond Airport **TO:** Fredericksburg, National Airport	15 Vans	300+	$23 Fredericksburg one-way $30 National Airport one-way
Lee Coaches Route 4, Box 38 Sealston, VA 22547	(540) 371-6785 (800) 443-4533	Fredericksburg **TO:** Crystal City, Pentagon, Fort Belvoir	14 Buses	400	$10 round trip $8.50 one-way $60 Crystal City, Pentagon-two weeks $45 Fort Belvoir-two weeks
National Coach Works 10411 Hall Industrial Drive Fredericksburg, Va 22408	(540) 898-6959	Fredericksburg **TO:** Pentagon, Wash. D.C.,	40 Buses	500	$75 Pentagon-for two weeks $80 Wash. D.C-for two weeks $50 10 one-way tickets $12 round-trip $10 noon shuttle
OmniRide PRTC 14700 Potomac Mills Rd. Woodbridge, Va 22192	(703) 490-4811	Prince William **TO:** Pentagon, Downtown Washington, Crystal City Manassas **TO:** Vienna, W. Falls Church, Pentagon, Washington	75 Buses	2351	$35 for 10-trip. $1.75 Single Fare
Quick's Commuter Service 41 RV Parkway Falmouth, Va 22405	(540) 373-6027	Fredericksburg **TO:** Crystal City, Pentagon, D.C., Rosslyn, Bailey's Crossroads	17 Buses until Dec. 15, 10 after	1100	$58 Every two weeks to No. Virginia $62 Every two weeks to Wash. D.C.
Greyhound/Trailways 1400 Jefferson Davis Hwy. Fredericksburg, VA 22407	(540) 373-2103	Fredericksburg **TO:** Washington, DC, Triangle, Woodbridge	17	20	$45 for 10-ride tickets which must be used within 30 days
Van Pool Services, Inc. (VPSI) 2760 Eisenhower Avenue, #306 Alexandria, VA 22314	(800) 826-7433	Prince William County, Manassas, Stafford County, Spotsylvania **TO:** DC, No. VA and Quantico	170 Vanpools	*2000	$85 - $130/month depending on route
Loudoun Commuter Bus Service Harrison St. S.E., 3rd Floor Leesburg, Va 20177	(703) 771-5665 (703) 478-8433	Purcellville, Hamilton, Leesburg, Sterling **TO:** Rosslyn, Pentagon, Downtown Washington	9 Buses	621	$40 Per 10 one-way tickets $5 one-way

N/A = Information not available. **** Some figures are approximate.*** ***** Weekly fares unless otherwise indicated.***

Vanpools

A large number of commuters also enter the core in vanpools. Besides the commercially operated pools listed in **Table 24,** many commuters have formed their own. According to MWCOG's 1996 Core Cordon Count, approximately 390 vanpools crossed into the core during the morning peak commuting period from Virginia. This number is down by 32 percent since 1990.

In order to support those commuters taking advantage of vanpools, the Arlington County government includes vanpools in its transit incentive program, in which employees using transit are eligible to be reimbursed up to $65 per month through Metrochek, an employer-provided transit subsidy that is distributed in the form of Metrorail passes. Vanpool drivers may redeem their Metrocheks over-the-counter at any of Arlington's transit stores or by mailing them to WMATA.

Another regional incentive program for vanpools is the **VanStart Program**, which provides an impetus for new vanpool formation by temporarily funding empty seats during the critical start-up phase. The program is open to all owner/operators of new vanpools who register for assistance with a local Rideshare Program. Assistance is granted at the discretion of the local organization based on the applicant's demonstrated aggressiveness in recruiting passengers. Eligible vanpools may receive cash assistance equivalent to the average per passenger cost for between one and four passengers for up to four months. The program is funded by the Commonwealth through the local ridesharing programs. Through the rideshare programs, the Commonwealth also provides the **VanSave Program**, which offers temporary emergency financial support to vanpools that have lost over 25 percent of their ridership.

In order to increase the amount of vanpooling in the region, the Transportation Planning Board committed to funding a new package of incentives in 1996. Jurisdictional and agency staff have identified a particularly promising incentive which involves providing a direct subsidy to vanpool operators to cover their capital costs. Because the federal government allows federal transit funds to be used to pay the capital portions of a contract with a private sector party, the region may use these funds to subsidize vanpools with which it has a contract.

In exchange for this subsidy, the vanpool operator will be required to submit information on the number of passengers in the vanpool, the distance each travels, and other such data needed to complete National Transit Database report. Because the amount of the federal funds allocated to the region is determined by the amount of transit provided in the region and reported to the NTD, this information from the vanpool operators will allow the region to earn additional dollars. Preliminary estimates indicate that the money earned for the region each year would likely exceed the cost of the vanpool subsidy by $2-3 million dollars annually. This measure is particularly exciting because it appears to not only be an effective way to reduce automobile traffic and emissions, but to also raise

additional transit funds for the Washington, D.C. region. The measure is scheduled to be implemented in the fall of 1998.

Integration of Services

As is clear from this report, Northern Virginia has a large number of individual services which mesh and interact with varying degrees of success. For the most part, transit consumers do not so much care about who carries them from one place to the other as they care about the cost of the ride, the time it takes, and its convenience. Clearly, anything that transit operators can do to make transfers as fast and convenient as possible will boost ridership and lead to a more loyal customer base.

One technique often used to integrate services is timed transfers. Where direct service is not available or financially feasible, buses are timed to meet in a central location to facilitate bus transfers. Another example is coordinating arrival and departure times for transfers between buses and trains.

Some services in Northern Virginia emphasize timed transfers. The four Reston Internal Bus Service routes operated by the Fairfax Connector all begin and end each trip at Reston Town Center to facilitate passenger transfers. None of the buses begins another cycle until all four buses have arrived. WMATA is planning a similar timed transfer arrangement in Tysons Corner for its Tysons-Montgomery Beltway express and distribution service to be implemented in September, 1998. Another method being explored by WMATA is the use of flashing lights installed outside the train station to alert bus drivers when a train is entering the station, thus facilitating transfers for train passengers. The train arrival indicator lights will be installed at the Ballston, Huntington, Franconia-Springfield, West Falls Church and Vienna Metrorail stations in Virginia. As closely as possible, DASH service is timed to meet VRE trains serving the Alexandria station. System operators consider transfer coordination opportunities, and establish timed transfers when possible. Bus schedules publicize opportunities for timed transfers.

Given the number of transit providers in the region, it can be difficult to keep track of schedule changes in order to coordinate transfers. To remedy this situation, NVTC has initiated a Quarterly Service Change Report which includes information on schedule and service changes for each transit operator. Reports are released each January, April, July and October.

Another opportunity to integrate services is through the use of multimodal centers. The more closely systems are physically linked, the simpler transfers between them should be. Three recent examples include the new Franconia-Springfield Transportation Center which links VRE with Metrorail and various bus systems while providing parking and opportunities for ridesharing; the adjacent Metrorail, VRE, and Amtrak stations and bus bays at King Street in Alexandria; and the new National Airport terminal where passengers can easily connect to Metrorail.

SECTION 8:

PARATRANSIT SERVICES

SECTION 8: PARATRANSIT SERVICES

MetroAccess

The Americans with Disabilities Act (ADA) requires that all fixed-route transit systems (with the exception of commuter rail systems) provide paratransit for persons with disabilities who are certified paratransit eligible. The Washington region has responded by developing **M**etro**A**ccess, a regional paratransit service operated by WMATA and its member jurisdictions since it was initiated on May 16, 1994. As of July, 1998, 2,778 Virginia residents were certified to use **M**etro**A**ccess.

Eligible Users: People are considered eligible for paratransit service if they are:

1. A person who is unable, as the result of a physical or mental impairment, to get on, ride, or get off any vehicle on the transit system; or

2. A person who needs the assistance of a wheelchair lift or other boarding assistance device and is able, with such assistance, to get on, ride, and get off any accessible vehicle, BUT such a vehicle is not available on the route when the person wants to travel; or

3. A person who has a specific impairment-related condition which prevents travel to or from a bus stop or rail station.[3]

The traveler's need for paratransit service must be certified by a healthcare professional, and a complete application returned to WMATA in order for a person to be approved to use the service.

The paratransit service area is that area within 3/4 of a mile from any WMATA bus or rail station service area. As specified by the ADA, operating hours are from 5:30 A.M. to 12:00 A.M. on weekdays and from 8:00 A.M. to 12:00 A.M. on weekends and major holidays. **M**etro**A**ccess operates 365 days a year, including all federal, state, and local holidays, and during special events when the fixed route systems are operating. Fares are double the regular non-discounted fares for the fastest comparable trips on the fixed-route system.

Over the next five years, demand for paratransit services is expected nearly double. To improve efficiency and minimize funding requirements, WMATA initiated an evaluation of the **M**etro**A**ccess system. Resulting recommendations include streamlining of management and operations, decentralized reservations

[3] WMATA ADA Paratransit Guide. Washington, DC: September, 1993.

and scheduling, increased use of taxi service where appropriate, the addition of incentives and penalties to future contracts, and possible changes to the subsidy allocation formula. Public hearings were held to review the recommendations in June, 1998, and full implementation of the changes is scheduled to be completed by May, 1999.

Jurisdictional Services

In addition to MetroAccess, a number of local jurisdictions operate their own paratransit systems, many of which are also core carriers for the regional operation. MetroAccess provides regional paratransit services for all ADA eligible users. ADA eligibility is not required for jurisdictional paratransit passengers. Alexandria, Arlington, and Fairfax County are considered core carriers because they serve some MetroAccess passengers as well. These systems are described below:

Alexandria DOT

The city of Alexandria began operating DOT paratransit service within the city limits in 1984. DOT was modified to comply with the Americans with Disabilities Act in 1993. Anyone living within the city limits of Alexandria who has a disability which prevents the use of regular transit service is eligible to use DOT. Participation is by application to the city of Alexandria.

Arlington Access

Arlington County funds trips for Arlington County residents who are certified eligible for the ADA MetroAccess service. Residents call MetroAccess to schedule their trips, and MetroAccess sends the trip information to the Arlington Access Core Carriers, Red Top Cab and Diamond Transportation Services, for actual service delivery. Arlington then pays the core carriers directly for the services provided.

City Wheels

The city of Fairfax City Wheels program offers alternative transportation within the city of Fairfax to the Vienna Metrorail station, to George Mason University, and to Fair Oaks Hospital. Participation is by application to the city of Fairfax. Coupons for transportation are obtained by placing a mail order prior to each month. Orders may take up to two weeks to process. Rides are arranged by the participant by contacting the transportation company directly. The average passenger fare is $2 (two times the CUE bus fare).

Fare Wheels

The city of Falls Church Fare Wheels program is a regional transportation network including the cities of Falls Church and Fairfax, and Arlington County. Fare Wheels allows participants to use redeemable coupons for up to $35 per month to pay for transportation services. Individuals may choose from among a pool of participating transportation providers, selecting the one that best meets their needs. Participants must be residents of the city of Falls Church, at least 62 years of age or permanently disabled, with an annual income not to exceed $30,000. Participation is by application to the city of Falls Church.

Fastran

Fairfax County owns and operates the Fastran fleet, which offers door-to-door service within Northern Virginia for consumers of county human services programs and provides core carrier service for MetroAccess. In addition, there is a midday Dial-a-Ride program for income eligible residents. Dial-a-Ride fares are paid on a cash basis and range from $1 to $3 per trip. Trips are scheduled by the participant through Fastran. Participation is by application to Fairfax County. The program is structured to meet the transportation needs of low income persons by restricting eligibility to those with an annual income at or below $16,500. Fastran also received a state grant to provide Fastran-to-Work service for Virginia Initiative for Employment not Welfare (VIEW) clients and their children living in the western part of the county.

LCTA

Loudoun County Transportation Association provides door-to-door, including paratransit, services in Leesburg and the Sterling area five days per week for approximately eight hours per day. Special runs have also been made to support specific activities in the county. Fare books of 10 or more trips can be purchased, or payment can be made on a cash-per-ride basis. Only county residents are eligible to participate.

Table 25 compare the costs for core carriers and local paratransit service providers in the region. The information provided under core carriers shows the trips referred to the local jurisdictions from MetroAccess. The local provider information is additional service provided by the local jurisdictions for their residents. Service costs vary based on the type of service provided by the carrier. Programs using strictly taxi cab service for their paratransit trips spend much less than those programs with dedicated service vehicles. MetroAccess costs are significantly higher because they include costs for management of the entire system (approximately $1.2 million). Arlington's Diamond Cab service is more expensive than other cab service because it handles all of the ambulatory trips which require special accommodations for the passenger.

Table 25: Comparison of Paratransit Costs, Fiscal Year 1998

		Other Core Carriers						
		Fairfax County			Arlington County			
	Metro Access	Fastran	Taxi	Alexandria DOT	Diamond*	Red Top	Montgomery County	Prince Georges County
Operational Information:								
Trips Completed	212,547	8,590	3,268	2,571	1,951	25,556	104,214	185,489
Hours Operated	125,027	5,334	n/a	1,158	1,073	14,035		52,237
Revenue Hours		3,856	n/a	812			6,752	
Revenue Miles		55,751	n/a	15,426	16,388	214,670	897,685	797,688
Costs:								
Fixed Overhead							$300,000	$1,912,153
System Management	$7,670,300							
Oper/Admin	$473,800						$2,024,379	
Non Personnel								
Private Provider				$35,752	$52,151	$364,498		
Vehicle Lease/Rental								
MIS Maintenance								
Support								
Eligibility Cert								
Other Costs	$28,200						$4,212	
Total Costs	$8,172,300	$173,857	$65,785	$35,752	$52,151	$364,498	$2,328,591	$1,912,153
Revenue	$426,500	$26,090	$7,190	$6,865	$4,292	$56,223	$188,500	$20,272
Total Subsidy	$7,745,800	$147,767	$58,595	$28,887	$47,859	$308,275	$2,140,091	$1,891,881
Service Area Size		399	399	473	25	25	495	486
Subsidy per Trip	**$36.44**	**$17.20**	**$17.93**	**$11.24**	**$24.53**	**$12.06**	**$20.54**	**$10.20**

** Ambulatory Service*

Table 26: Paratransit Contacts		
Paratransit Service Provider	**Contact**	**Phone**
WMATA MetroAccess	Glenn Millis	(202) 962-1631
Fairfax County Fastran	Steve Yaffe	(703) 324-7075
Alexandria DOT	Kimberly Sledge	(703) 838-3800
Arlington Access	Eric Smith	(703) 228-3692
City Wheels (city of Fairfax)	Alex Verzosa	(703) 385-7889
Fare Wheels (city of Falls Church)	Letha Flippin	(703) 241-5113
Loudoun County	Mark McGregor	(703) 777-2708
Prince George's County	Jim Raszewski	(301) 883-5656
Montgomery County	Cathy Delaney	(301) 468-4446

SECTION 9:

TRANSIT FARE POLICIES

SECTION 9: TRANSIT FARE POLICIES

Transit fares play an important role in generating operating revenue and encouraging or discouraging ridership, and therefore, a number of factors must be considered when establishing policies. Different transit providers may target very broad or distinct markets, and as a result, establish different fare policies. For example, Metrobus operates in two states and the District of Columbia, providing service throughout the week to customers with diverse incomes living in areas ranging from dense urban to suburban neighborhoods outside the Beltway. CUE bus, operated by the city of Fairfax runs two circulator routes connecting the city with George Mason University and the Vienna Metrorail station. While both systems provide bus service, their range and target markets differ significantly, which helps explain why Metrobus has a variable fare structure based on the type of service, and the CUE bus fare is a flat fee.

Transit providers must balance competing goals such as providing affordable, comprehensive service, and ensuring that farebox revenue covers a targeted portion of the operating costs. **Table 27** lists some of the options that are evaluated in establishing a fare policy. The different fare and transfer policies currently in effect in Northern Virginia are identified in **Tables 28** and **29**, and compared in **Tables 30 and 31**.

Table 27: Factors Considered in Establishing Fare Structures and Policies

Technology Issues:
- Fare Collection – barrier vs. proof of payment
- Payment Media – cash, tokens, passes, credit, stored value
- Level of Automation–magnetic stripe, Smart Cards, registering fareboxes
- Media Distribution –automated, sales outlets

Marketing Issues:
- Regional Compatibility – isolated service vs. Connecting service
- Income – low, middle, high, range
- Service Goals – provide mobility, mitigate congestion, improve air quality
- Hours of Operation – peak period, day, evening, weekend

Fare Structure Issues:
- Farebox Recovery Ratio – firm or variable
- Rate Structure – flat, zone, miles
- Transfers – free, fee, discount
- Discounts – frequent user, group, student, senior, disabled
- Competitive Pricing – with auto travel and other transit modes

Because transit fares differ on each system, transferring passengers are usually required to purchase different fare media to reach their final destinations.

Table 28: Public Transit Fare Policies

Transit System	Regular Fares		Multiple Trips
	Peak Periods	Off-Peak Periods	
Metrorail:			
First 3 composite miles	$1.10		High Value-10 percent bonus on $20.00 or more.
Each additional composite mile over 3 up to 6	$0.195		Rail Fast Pass-$50.00-2 weeks unlimited travel. Period begins on day pass first used by patron.
Each composite mile over 6	$0.165		One Day Pass-$5.00-unlimited travel, after 9:30 a.m. on weekdays, all day Sat., Sun., and Holidays
Maximum peak period fare	$3.25		Metrorail Short-Trip Pass-$35.00-unlimited rail trips costing $1.60 or less for 2 weeks. Period begins on day pass first used by patron.
First 7 composite miles		$1.10	
Composite miles over 7 up to 10		$1.60	Metrorail 28-day Pass-$100.00-unlimited rail trips for 28 consecutuve days. Period begins when first used by patron.
Composite miles exceeding 10		$2.10	Bus/Rail Super Pass-$65.00-2 weeks unlimited travel.

Table 28: Public Transit Fare Policies - Continued

Transit	Peak Fares		Off-Peak Fares	
Metrobus Virginia - Partial Listing	**Cash**	**with Rail Transfer**	**Cash**	**with Rail Transfer**
Within one zone in Virginia	$1.10	$0.85	$1.10	$0.85
Between Virginia Zones G & 1-Arlington	$1.10	$0.85	$1.10	$0.85
Virginia Zones G & 1-Alexandria	$1.45	$1.20	$1.10	$0.85
Virginia Zones G & 2	$1.80	$1.55	$1.10	$0.85
Virginia Zones G & 3	$2.15	$1.90	$1.10	$0.85
Washington DC to Virginia Zone G	$1.45	$0.60	$1.45	$0.60
Virginia Zone G to Washington DC	$1.45	$1.20	$1.45	$1.20

MULTIPLE TRIPS - Metrobus Flash Passes - valid for two weeks:

1. Virginia Base Flash Pass - $20.00 with no rail value. Full base fare within one zone in Virginia.
2. Virginia 2 - Zone Pass - $27.00 with no rail value, two-zone trip within VA and base fare in MD or Washington DC during peak periods, and full fare for Metrobus trips anywhere during off peak.
3. Virginia 3 - Zone Flash Passes - $34.00 with no rail value. Full Metrobus fare within VA, in MD or Washington DC during peak periods, and full fare for Metrobus trips anywhere during off peak.
4. Arlington County Flash Pass - $25.00 with $15.00 rail value. Valid for full Metrobus fare in Arlington County only. Metrorail fare value can be used anywhere.
5. MD/DC Pass - $30.00 - good for one zone in VA during peak period and for full fare anywhere during off-peak periods.
6. Bus/Rail Super Pass - $65.00 - unlimited trips on Metrobus/Metrorail for two weeks.
7. Senior/Disabled Pass - $15.50 - unlimited use on Metrobus routes in MD/DC/VA for 2 week period, plus $5 rail value.

Table 28: Public Transit Fare Policies - Continued

Transit System	Regular Fares	Multiple Trips
Alexandria DASH - DASH honors Metrobus tokens, Metrobus VA flash passes, Metro Superpass, MD/DC Metrobus flash pass (rush hour only), Metrobus & Connector transfers, DASH tourist token, DASH courtesy coupon, DASH "Give you a lift" coupon, & VRE ticket.	Base $0.85 with $0.25 surcharge to Pentagon Metrorail Station at all times.	$28.00 Monthly Pass; $38.00 Pentagon Metrorail Station Pass
Arlington Transit (ART)	$0.35 fare; $0.50 as of November 1, 1998	$7.00 for 25 tokens, ($0.28/trip); $10.00 for 25 tokens, ($0.40/trip) as of Nov. 1, 1998
City of Fairfax CUE	$0.50 at all times. Persons with valid George Mason University I.D. ride free. Senior Citizens and school children pay $0.25. Children under three ride free with an adult.	No Discount
Fairfax Connector	$0.50 fare for local service, $0.75 fare for express feeder service, $1.00 for mid-day routes (306, 404), $2.55 for routes (301, 302, 303, 304, 305) and Pentagon service (5P,N). $0.50 for seniors/ disabled fare, $0.35 with rail transfer.	No Discount
Loudoun County Commuter Service	$5.00 one-way fare.	$40.00 for 10 one-way rides.
Loudoun Transit	$1.00-$3.00 local. $1.00 within Leesburg. $2.00 Demand Response Service. $5.00 to Dulles Airport.	No Discount
PRTC OmniLink	$0.75 base fare; $0.25 base transfer, $0.35 base fare and $0.10 transfer for seniors and the disabled.	No Discount
PRTC OmniRide	$5.00 one way cash fare to Pentagon, DC and Crystal City; $1.75 to Vienna, West Falls Church and Franconia- Springfield Metro stations.	$35.00 - 10-ride token pack
Reston RIBS	Fare $0.50. $0.35 with rail transfer for seniors and the disabled.	No Discount
Tysons Shuttle	Fare $0.75 at all times. No transfers given or accepted.	No Discount.
Virginia Railway Express	9 zone distance based fare structure; full fare single ride tickets	Ten-trip ticket - 15% discounted; Monthly unlimited travel - 30% discount + 5% if by mail; Additional discount between zones 3-9.

TABLE 29: Discount Fares on Northern Virginia's Public Transit Systems

TRANSIT SYSTEMS	DISCOUNTS AVAILABLE	ELDERLY AND HANDICAPED FARES
Metrorail	10% bonus on farecard purchase of $20 and over.	Half the rush hour fare for elderly/disabled riders all day with valid ID.
Metrobus	Flashpasses, which allow for unlimited use of the bus system for a period of time, are available.	$0.50 fare for elderly/disabled riders all day, except those that have surcharges with valid ID.
VRE	30% discount on monthly passes; 15% discount on ten-trip tickets; 30% off group sales (20+)	50% discount for elderly/disabled
Arlington Transit	20% discount on a 25-token purchase.	N/A
Tysons Shuttle	NO DISCOUNTS	N/A
Reston Ribs	NO DISCOUNTS	N/A
City of Fairfax CUE	GMU students ride free.	$0.25 fare for elderly/disabled and children under 18.
Alexandria DASH	Approximately 20% discount on monthly passes.	Free transfers to all DASH buses w/in four hours of first boarding.
Fairfax Connector	NO DISCOUNTS	$0.35 discount with transfers and valid Metro elderly and disabled ID cards.
Prince William OmniLink	Feeder: Free to VRE passengers	$0.35 base fare and $0.10 transfer during off-peak periods on local routes (Monday through Friday).
Prince William OmniRide	30% discount on 10-token purchase.	N/A

TABLE 30: Northern Virginia Transit Transfer Policies

TO:	Metrorail	Metrobus	VRE	Arlington Transit (ART)[3]	Tysons Shuttle/ RIBS	City of Fairfax Cue	Alexandria DASH	Fairfax Connector	*PRTC OmniRide*	*PRTC OmniLink*
FROM:										
Metrorail	FREE	25-cents discount[1]	~	25-cents discount	~	From Vienna FREE	~	$.25 discount on routes 301-306 & 404	~	~
Metrobus	~	$0.10 fee	~	FREE	~	~	FREE	Free within zone	~	~
VRE	~	FREE	~	FREE	~	~	FREE	FREE	~	FREE
Arlington Trransit[3]	~	50-cents discount	~	~	~	~	~	~	~	~
Tysons Shuttle/ Reston RIBS	~	$0.75 discount	~	~	FREE	~	~	FREE	~	~
City of Fairfax Cue	~	~	~	~	~	FREE	~	~	~	~
Alexandria DASH	~	85-cents discount	~	~	~	~	Free (within 4 hours)	$0.85 discount or free	~	~
Fairfax Connector		base fare discount	~	~	FREE	~	base fare	Free	~	~
PRTC OmniRide	~	~	~	~	~	~	~	~	FREE	FREE
OmniLink	~	~	~	~	~	~	~	~	~	$0.25 fee[2]

1. Does not apply to bus routes with special reduced fares.

2. $0.10 for senior and disabled passengers

3. Reflects name and policy changes as of November 1, 1998.

Table 31: Comparison of Fare Policies for Northern Virginia Transit Providers

	Metrorail	Metrobus	VRE	Arlington Transit	Tysons Shuttle	Reston RIBS	City of Fairfax Cue	Alexandria DASH	Fairfax Connector	Loudoun Commuter Service	PRTC OmniRide
Control Strategy											
Barrier	x	x		x	x	x	x	x	x		x
Proof of Payment			x								
Fare Media/ Payment Method											
Cash	x	x		x	x	x	x	x	x	x	x
Credit	x		x								
Debit	x		x								
Smart Card	x										
Tokens/Tickets		x		x	x	x	x	x		x*	x
Passes	x	x	x	x				x		x*	
Service Periods											
Peak period only		*varies by route*	x		x				*varies by route*	x	x
weekday	x	*varies by route*		x		x	x	x	*varies by route*		
weekend	x	*varies by route*				*Saturday*	x	x	*varies by route*		
evening	x	*varies by route*					x	x	*varies by route*		
Ticket Sales											
On Board		x		x	x	x	x	x	x	x	x
Vending Machine	x		x								
Mail Order	x		x	x							
Sales Outlets	x	x	x	x	x	x	x	x	x		x
Fare Structure											
Flat				x	x	x	x	x	x	x	x
zone based		x	x							x	
mileage based	x										

** Metrobus issued*

The psychological effect of repeatedly paying for a trip that the patron perceives to be one integrated movement contributes to a negative perception of transit as an expensive and inconvenient travel mode. In addition, where multiple service providers operate in the same area, customers must learn the routes, schedules, fare and transfer policies for each system.

WMATA's Regional Mobility Panel (see Section 7: Bus Services for more information) identified fare simplification as one component of a larger effort to improve regional bus service. As a result, a consultant has been hired to undertake a fare simplification study scheduled for completion in the fall of 1998. To date, some of the policies that have been explored include a flat fare for bus service with a higher fare for "express" service. Also, the following features would be eliminated: Virginia peak period zone fares, interstate charges, rail-to-bus transfer discounts, and the $0.10 transfer fee. Although the policy changes listed above would simplify the fare structure for regional bus service, the impact on revenue is not as clear. While elimination of zone charges, transfer fees and rail-to-bus transfer discounts would reduce farebox revenue, those losses may be more than offset by increases in ridership resulting from the provision of more user friendly service. In fact, several transit operators (Baltimore MTA, San Diego MTDB, Denver RTD, San Jose SCCTA, Sacramento RT, San Bernardino Omnitrans, and Los Angeles County Foothill Transit) have implemented innovative fare structures and increased both ridership and revenue as a result.[4]

While WMATA is the largest transit service provider in the region, regionwide fare simplification can only be accomplished if all the transit service providers in the region are included. As a result, the WMATA fare simplification study will explore opportunities to simplify all bus fares. Two options for accomplishing regional fare simplification include establishing a regional fare policy while retaining individual system's fare media, or establishing one fare medium that can be used on all systems. To explore both options, the study will model different fare policies and identify technology options that would allow for one fare payment medium.

Funding has been programmed for farebox replacement throughout the WMATA bus system, creating an opportunity to identify the fare collection technology that would best support the goal of fare simplification. The study has focused on three options: 1) fareboxes that will accept the magnetic stripe tickets used on the Metrorail system; 2) extending the SmarTrip system that will be available throughout the Metrorail system in early 1999; or 3) procuring fareboxes capable of accepting both magnetic stripe tickets and SmarTrip cards. These options are discussed below in more detail.

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[4] Carter, Douglas W. (April 25, 1997). Presentation to Maryland Service Planing Symposium: Are You Considering A Fare Change? Booz, Allen and Hamilton Inc.

WMATA's Magnetic Stripe Fare Cards and the Metrochek Program

Metrorail passengers are all familiar with the magnetic stripe cards that are used to enter and exit the fare gates. The cards can be purchased from vending machines at any Metrorail station, and used for an individual trip or for multiple trips. As long as the card holds a minimum value of $1.10, passengers may enter the system and then the full cost is deducted from the card upon exit based on the trip distance and time of day.

In addition, federal laws allow employers to provide up to $65 per month[5] in transit incentives to employees on a tax free basis. In the Washington metropolitan area, these benefits are distributed to employees in the form of Metrocheks, which are the magnetic stripe cards used to access the Metrorail system. As of August, 1998, 1,650 regional employers participate in the Metrochek program with over 67,500 employees receiving Metrocheks each month. Metrochek use is likely to get a boost from TEA-21 which allows employers to provide transit benefits in lieu of compensation. Assuming the full $65 per month benefit is provided, each employee would save approximately $455 per year in transit costs, while the employer saves over $106 per employee per year (see **Table 32**). Within the organizations offering Metrochek benefits, approximately 26 percent of all employees utilize Metrocheks, with each new Metrochek employer program resulting in a conversion rate to transit per employment site of up to 20 percent[6].

Although Metrochek does provide a universal fare medium, the fare cards must be exchanged at one of three transit stores for use on any transit system other than Metrorail, and therefore, greater efforts must still be made to simplify regional transit fares. If magnetic stripe card readers were included in the next generation of fareboxes, then the cards could be used to pay bus fares as well instead of requiring the Metrocheks to be traded in for bus tokens or passes. As mentioned above, this option is being evaluated as part of WMATA's fare simplification study.

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[5] Beginning in 2002, employees may be given up to $100 per month in transit benefits.

[6] United States General Accounting Office. (September, 1993). Mass Transit: Federal Participation in Transit Benefit Programs. GAO/RCED-93-163.

Table 32: Annual Tax Advantages of Metrochek	
Employee Costs	**Private Sector Employee****
Cost of Metrochek	$780.00
Federal Income Tax Saved	($218.40)
Employee FICA 7.65% saved	($ 59.67)
State Income Tax Saved	($ 46.80)
Total Cost to Employee	**$455.13**
Employer Costs	**Private Sector Employee****
Base Amount Paid to WMATA for Metrocheks	($780.00)
Money deducted from employee salary to pay for Metrocheks	$780.00
Actual Cost to Employer	$ 0.00
Employer FICA 7.65% saved	$ 59.67
Employer Unemployment Tax Saved*	$ 46.80
Net Savings to Employer Compared to Cash Salary Payment	**$106.47**

Assumptions: Employer provides Metrochek at the maximum of $65 per month ($780 per year).
Employee pays 28% in federal income tax
Employee pays 6% in state income tax

** Federal Unemployment Tax payable on first $7,000 of each employee's salary per year.*

***Private Sector = "for profit" and non-profit (associations).*

Smart Cards and WMATA's SmarTrip

Another method of integrating fare policies throughout the region is the Smart Card. The Smart Card is an electronic payment option that operates as a stored value or cash card, offering two primary advantages to transit providers: an integrated regional fare medium, and reduced operating and maintenance costs associated with cash handling. There are four types of Smart Card currently available: contact, contactless, hybrid and combi-cards. Contact cards require physical contact between the card and a reader; contactless cards rely on a battery powered radio transmitter to communicate with the reader; hybrid cards combine a Smart Card with a magnetic stripe; and combi-cards combine both the contact and the contactless capabilities. Smart Cards may be used in open or closed operating environments. Open systems include multiple card issuers and service providers, like credit or debit cards. In a closed system, the card is issued by a single entity and can be used only for that entity's services.

WMATA is the first transit agency within the region to pursue Smart Card technology. In 1995, WMATA launched a one year demonstration of the "GO Card," which utilized a card slightly thicker than a standard drivers license. The

wallet-sized contactless cards were programmed to store fare value and used to gain access to selected Metrorail stations, Metrobus routes, and WMATA parking lots by placing the card near a "target" which automatically deducted the fare. For the demonstration phase, 19 Metrorail stations, 22 Metrobuses, and five parking lots were equipped with the card readers. At the end of the demonstration period there were over 1,700 active passenger accounts and 840 employee accounts. Passengers could only use the card for a limited number of trips because not all stations were equipped with card readers during the demonstration.

WMATA plans to re-launch the Smart Card program as SmarTrip in January, 1999 after installing Smart Card readers and debit and credit capabilities at all Metrorail stations. SmarTrip will initially operate as a closed system until an agreement can be reached with a financial institution and/or other transit providers. WMATA is evaluating the option of extending the SmarTrip system to the Metrobus system as well as other transit systems as part of the fare simplification study scheduled for completion in the fall of 1998. Future plans may also involve a more open system architecture, whereby the card could also be used at parking garages throughout the area and for convenience retail purchases.

Implementation of any new payment system that would include all the regional transit providers would raise issues of compatibility and coordination. Some of the issues and concerns that need to be addressed include[7]:

Institutional - which agencies will participate in the program, when will they begin participating, how will the system be organized and operated, and what legal/regulatory requirements must be addressed?

Technological- what type(s) of card will be used, what are the design requirements, how will the new technology be integrated into the existing system, and how can compatibility with future technological advancements be ensured?

Financial- what are the expected costs and benefits of the program to each potential participant?

Customer-Related- to what extent will customers participate in the program, and how will their concerns be addressed (e.g. privacy)?

These issues will need to be addressed as part of NVTC's project to extend WMATA's SmarTrip project to the VRE and local bus systems. Approximately $1.6 million has been approved for the project. VRE passengers using SmarTrip would also receive a $0.25 discount on each connection to Metrorail or a free transfer to local bus systems. This project is an important step towards a universal

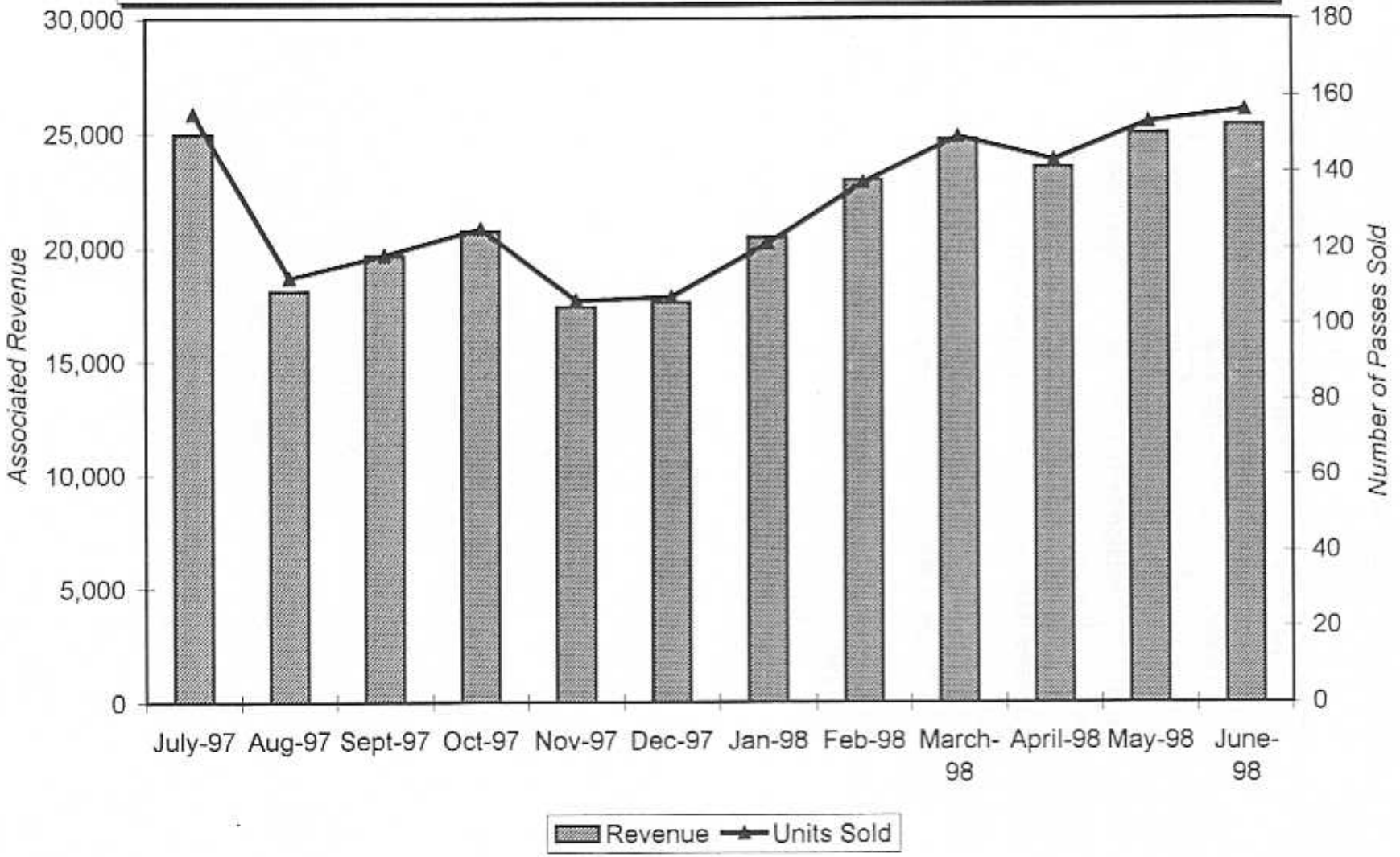
[7] FTA, Transit Cooperative Research Program. (December, 1996). Multipurpose Fare Media: Developments and Issues.

fare medium for the region, and should be a high priority for the area's transit operators and policy makers.

As an interim measure, WMATA and VRE agreed to participate in a one year demonstration to reduce the number of tickets needed and increase the ability of a transit patron to transfer between transit operators using the same ticket. In January, 1997, VRE and Metrorail began a new monthly fare medium, called the Transit Link Pass (TLC). The TLC pass is an unlimited Metrorail pass plus a VRE monthly pass printed on the other side. The process was complicated by the disparate fare validation systems utilized by each operator. VRE employs a barrier-free proof-of-payment fare collection system, which relies upon random checks by conductors to verify that the proper fare has been paid. Fares vary by zones according to the approximate distance traveled. This fare policy is quite different from the controlled faregates used by Metrorail, whereby Metrorail access and egress are controlled by faregates and the price of the trip depends upon distance traveled and the time of day. **Figure 20** shows the number of TLC passes sold and the associated revenue since January, 1997 when the demonstration program was initiated.

A regionally acceptable fare structure and transfer coordination policy is being explored through WMATA's Fare Simplification study and could be accomplished in the near future. Over the longer term, a truly "seamless" fare structure that utilizes the latest available technology to collect fares, pay for parking, tolls and other convenience purchases is being pursued through the Electronic Payment working group of the ITS Task Force. The Smart Card may be the technology that eventually allows the region to accomplish this important objective.

Figure 20: Number of VRE TLC Passes Sold and Associated Revenue, FY 98



Some of the groups working towards fare simplification are listed below in **Table 33**:

Table 33: Agencies and Groups Working Towards Fare Simplification

Agency/Group	Status	Contact
WMATA Office of Business Planning and Development	Exploring fare simplification alternatives, revenue implications, and associated fare collection technology issues. Managing the fare study due for completion in fall, 1998.	Tom Donahue (202) 962-2429
WMATA Office of the Treasurer	Managing the SmarTrip program.	Ed Barnette (202) 962-1156
NVTC	Working to expand the SmarTrip system to VRE and some Northern Virginia bus systems using state and federal grants.	Heather Wallenstrom (703) 524-3322
ITS Task Force, *Electronic Payment Working Group*	Developing a regional plan for deployment of electronic payment technology.	Heather Wallenstrom (703) 524-3322

SECTION 10:

MARKETING AND OUTREACH PROGRAMS

SECTION 10: MARKETING AND OUTREACH PROGRAMS

Collectively, this region has some of the worst traffic in the country. **Table 34** provides an overview of the most recent transportation statistics for the District, Maryland, and Virginia, as provided by the U.S. Department of Transportation.

TABLE 34: General Transportation Statistics, 1996			
Statistic	**D.C.**	**MD**	**VA**
Resident Population (Thousands)	543	5,072	6,675
Driving Age Population (Thousands)	444	3,916	5,221
Highway Motor Fuel Use ('000 Gallons)	182,030	2,518,045	4,054,168
Total Lane Miles	3,444	65,162	149,964
Total Road and Street Mileage	1,413	29,680	69,384
Annual Vehicle Miles of Travel (Millions)	3,316	46,187	71,302
State Motor Fuel Taxes and Other Receipts	32,028	604,614	693,348
Total Registered Vehicles	237,415	3,634,579	5,576,132
Total Licensed Drivers	333,445	3,377,470	4,692,071
Motor Vehicles per Licensed Driver	.71	1.08	1.19
Gallons of Fuel per Vehicle	767	693	727
Annual Miles per Vehicle	13,967	12,708	12,787

As mentioned above, both Maryland and Virginia have more than one vehicle per licensed driver. While this statistic does not mean that all area citizens have access to a vehicle, most do. As a lack of information can be a barrier to ridership, the need to distribute information on options to driving is essential. As described in this section, transit operators throughout the area are offering incentives to encourage transit use and reduce the number of vehicle trips while increasing revenue.

Innovative Regional Programs

Several current regional outreach programs are described below.

ARTS/Commuter Connections

TPB's Commuter Connections program has developed a database of information on commuting alternatives, such as car/vanpooling and transit information. As part of a recent upgrade to this software, WMATA provided access to their routing and scheduling database known as ARTS. Information on Metrorail, Metrobus, Alexandria DASH, Arlington Trolley, Fairfax Connector, Fairfax CUE, Montgomery County Ride-On, Laurel Connector and Prince

George's County's The Bus is included in the database, allowing passengers to request advice as to the service that best meets their individual needs. More information on the ARTS database can be found in Section 17: Intelligent Transportation Systems.

Carpool/Vanpool Discount Parking Program

COG and Parking Services International (PSI) are introducing a new carpool/vanpool parking discount program. Garages in the District of Columbia, Montgomery County, and Arlington County will offer a 10 percent discount on parking spaces for vanpools and carpools registered with Commuter Connections. Not all PSI garages are participating; a complete list will be published in August, 1998.

Kiosk Programs

One of the initiatives underway to enhance transportation demand management (TDM) services is information kiosks. The kiosks are designed to extend the capabilities of the regional TDM programs by making information available in high density pedestrian areas, such as shopping malls. Individual jurisdictions, VDRPT, MWCOG, WMATA, and local TMAs sponsor kiosk projects. MWCOG has located touch screen kiosks in the District and Northern Virginia as listed below:

Northern Virginia	District of Columbia
Ballston Common Mall	La Promenade at L'Enfant Plaza
Fair Oaks Mall	Union Station
Pentagon	Mobile Kiosk*
Pentagon City Mall (not yet deployed)	
Reston Town Center	
Springfield Mall	
Tysons Corner	
Woodbridge Wal-Mart	
Mobile Kiosk*	

** These mobile kiosks are moved to different locations throughout the program and are available for use at events around the region.*

Metrochek

In September of 1998, WMATA will kick off its fall marketing with an increased focus on promoting Metrochek. The majority of advertising will come in the form of seat drops, newspaper and radio ads, handouts, mass mailings, and various outreach programs. In addition, WMATA will hold two employer luncheon workshops to promote Metrochek.

Regional Guaranteed Ride Home Program

Transit service is often designed to serve commuters traveling to and from work during peak periods, when demand is the highest. Mid-day or other "off-peak" service may be less convenient, or nonexistent for some routes. Table 28 in Section 9: Transit Fare Policies provides an example of these service differences for Northern Virginia transit providers. Reduced mid-day frequency can discourage potential riders from taking transit if they foresee a possible need to return home in the middle of the day for an emergency (because of an illness, or to care for a sick child). In an effort to alleviate this concern, a regional Guaranteed Ride Home program was implemented by MWCOG in January of 1997.

The program provides participants with a free ride home in the event of a personal or family emergency, illness, or unscheduled overtime. Commuters who walk, bicycle, carpool, vanpool, or ride transit three times per week are eligible. Registered participants can receive up to four free rides home per year. While advanced registration is encouraged, a one time exception is allowed under emergency circumstances for non-registered commuters. Rides must begin within the Metropolitan Statistical Area (MSA) and terminate within the MSA or another approved destination. As of July, 1998, over 5,700 commuters are registered and 1,100 trips have been provided. Information on the cost of the program can be found in Section 4: Environmental Context.

Regional Mass Marketing Campaign

An air quality analysis must be performed before the Transportation Planning Board (TPB) can approve the Constrained Long Range Plan (CLRP) and Transportation Improvement Program (TIP). Last year, during the FY98 - 2003 CLRP and TIP process, the results of the analysis showed increases in nitrogen oxide (NO_x) emissions which had to be mitigated through the implementation of a Transportation Control Measure (TCM), now known as a Transportation Emission Reduction Measure (TERM). The TERM which was adopted last year by the TPB was a consumer based mass marketing campaign.

The campaign is designed to be a continuing marketing effort which includes a consumer advertising campaign that describes the benefits of ridesharing and transit. The goal of the campaign is to reduce mobile source air pollution created by automobiles by recruiting Low Occupancy Vehicle (LOV) travelers to ridesharing or transit modes. This consumer campaign will use radio and TV to reach such commuters. Funding is expected to begin in FY 2002, with the official launching of the program in July of 2002. The first four years of the program are expected to cost just over $3.7 million. By 2008, the program will be continued in only a maintenance mode and the cost will stabilize at $400,000 per year through 2020, which is the end of the plan period. The result is expected to be three percent penetration and 8,200 LOV commuters switching modes each year during the first four years.

RideChoices

The Fairfax County RideChoices program is a ridesharing incentive program sponsored by the County Department of Transportation. Incentives include providing County employees, who work at the Fairfax County Government Center or Public Safety Center, up to $65 per month through the County's Metrochek program. By taking FAIRFAX CONNECTOR, Metrobus, Metrorail, VRE, or participating in a commuter vanpool, employees can help reduce traffic and pollution in the corridor. Participating employees are also eligible for the Guaranteed Ride Home Program.

Telecommuting and Telework Centers

Another way to reduce demand for transportation during the peak commuting periods is by encouraging employees to work in or near their homes using telecommunications equipment. To encourage telecommuting, MWCOG distributes free telework information kits and conducts free seminars for employers and employees, as part of an ongoing marketing effort.

Telework centers are based on the idea of telecommuting, but an alternative work location with office equipment is set up closer to areas where the employees live. The list of operating telework centers in the area follows.

- Manassas Center (currently run by Lockheed Martin)
- City of Fairfax
- Herndon
- Loudoun County

Transit Ridership Development Initiative (TRDI) Program

This program was developed to increase Metrobus ridership in selected transit corridors in Arlington County, beginning with the South Arlington neighborhoods of Columbia Pike and Shirley Highway. In January 1998, the Arlington County Commuter Assistance Program (CAP) launched its "Arlington Metrobus" marketing campaign. The campaign provided free ride coupons and new full-color, user-friendly maps and timetables for select routes in the targeted corridors. This information was distributed to over 80,000 households in the form of a *Washington Post* insert and direct mail campaign. Additional booklets were also placed at major residential complexes along Columbia Pike. While work continues on the program, initial analysis showed that ridership has increased in the targeted areas. Additional information on the research results and specifics of the program can be found on the Arlington County web page at www.commuterpage.com.

Try Transit Week

Each year a week is designated "Try Transit Week" in an effort to encourage people who currently do not use transit regularly to try it. "Try Transit Week" for 1998 began on May 10, 1998. Many activities and events were planned for the week which involved numerous transit agencies and operators throughout the region. Free fares were offered at different times through the week by local service providers, which attracted extensive media coverage.

Web Pages

Due to the increasing need for commuters to have access to information 24 hours a day, most marketing departments and service providers have web pages available on the internet. In addition to providing schedules and route information, information on web pages is updated regularly, so the information is always current. Timely updates are especially useful during inclement weather or other service disruptions. Web site information on both general transportation and research can be found below in **Table 35**. **Table 36** provides web page addresses for local jurisdictions and service providers.

Table 35: General Transportation Web Sites

Agency	Site Description	Web Site Address
National Transportation Data Archive Bureau of Transportation Statistics	Contains searchable data files on **various transportation** related topics.	http://www.bts.gov/ntda
Turner-Fairbank Highway Research Center Federal Highway Administration	Provides information on current **research and projects.**	http://www.tfhrc.gov
PATH Database Institute of Transportation Studies - University of California, Berkeley	Database on intelligent transportation systems (**ITS**) with over 12,000 references.	http://sunsite.berkeley.edu/PATH/
Directory of Transportation Resources Princeton University	Contains a directory of transportation **internet sites**.	http://www.sor.princeton.edu/~dhb/
Uncover, Dialogue, Inc.	A searchable index with a keyword index for thousands of **periodicals** on a range of subjects.	http://uncweb.carl.org
Newspapers	Includes a listing of all links to national and international **newspapers** as well as the Associated Press Newswire.	http://www.lib.utexas.edu/Libs/PCL/News.html
Thomas, Library of Congress	Provides **congressional** information such as access to congressional bills and committee reports.	http://thomas.loc.gov

Table 36: Organizations Conducting Transportation Related Marketing Initiatives				
JURISDICTION	FY 98 MARKETING BUDGET	FY 99 MARKETING BUDGET	Web Page Address	CONTACT
City of Alexandria and DASH	$10,000 (Alexandria) and $7,000 (DASH)	$5,000 (Alexandria) and $7,000 (DASH)	Limited information is available at www.ci.alexandria.va.us, under transportation	Betsy Massie, Alexandria (703) 838-3800 Mary Jane Dye, DASH (703) 370-3274
Arlington County Commuter Assistance Program (CAP)	$40,000 for commuter assistance program and $155,250 for TRDI	$100,000 for commuter assistance program and $175,000 TRDI	www.commuterpage.com	Chris Hamilton (703) 228-3725
DATA - Dulles Corridor	approximately $70,000	approximately $100,000	DATA and TYTRAN to join the LINK web page. Est. completion in early 1998.	Susan Davis (703) 817-1307
Fairfax County	$71,000 Fairfax Connector $245,000 Ridesources	$116,500 Fairfax Connector $278,000 Ridesources	www.co.fairfax.va.us/ comm/trans/homepage	Walter Daniel (703) 324-1168
LINK/ Reston TMA	$35,000	$35,000	www.linkinfo.org	Karl Ingebritsen (703) 435-LINK
Loudoun County	$16,899	$10,000 Commuter Bus $22,500 Rideshare	Plan to add bus schedule info to Loudoun Co. page	Judy Thompson (703) 771-5665
Metropolitan Washington Council of Governments	$210,000	$744,000	www.mwcog.org	Nick Ramfos (202) 962-3200
Potomac and Rappahannock Transportation Commission (PRTC)	$ 261,778	$352,200	www.omniride.com	Brad Miller (703) 583-PRTC
TYTRAN	$15,000	$15,000	www.tytran.com	Kathleen Jackson (703) 799-5394
Virginia Railway Express (VRE)	$355,000	$355,000	www.vre.org	Wendy Lemieux (703) 684-1001
Washington Metropolitan Area Transit Authority (WMATA)	$1,000,000 (promotional advertising budget)	$1,000,000 (promotional advertising budget)	www.wmata.com	Ralph Frisbee (202) 962-2766
TOTAL	**2,491,927**	**3,315,200**		

Commuter Stores

In April of 1997, the three transit stores located in Ballston, Crystal City, and Rosslyn joined together to become *The Commuter Store*. The stores have proven to be an increasingly successful support service for transit riders, providing fare media and schedule information for Metro, VRE, MARC (Maryland commuter rail), OmniRide, the Arlington Trolley, DASH, Prince George's County's The BUS, CUE, the Fairfax Connector, the Maryland MTA bus system, RIBS, and the Tysons Shuttle. In addition to the more traditional forms of payment, Metrochek is accepted and fares can also be purchased by credit-card through a secure, on-line transaction via the Internet. Store staff also provide rideshare matching services and WMATA has authorized the stores to accept bike-on-rail permit applications and administer the exams, as well as process MetroAccess ID cards.

During FY98, Arlington's three stores served 177,947 customers with annual fare media sales of $2,958,733. Charts showing a history of sales and customers served since the stores openings are provided in **Figure 21**. As part of a grant received by the city of Alexandria, a transit store is being planned for the Landmark Mall. This location was decided upon with information from a local phone survey.

Transportation Management Associations

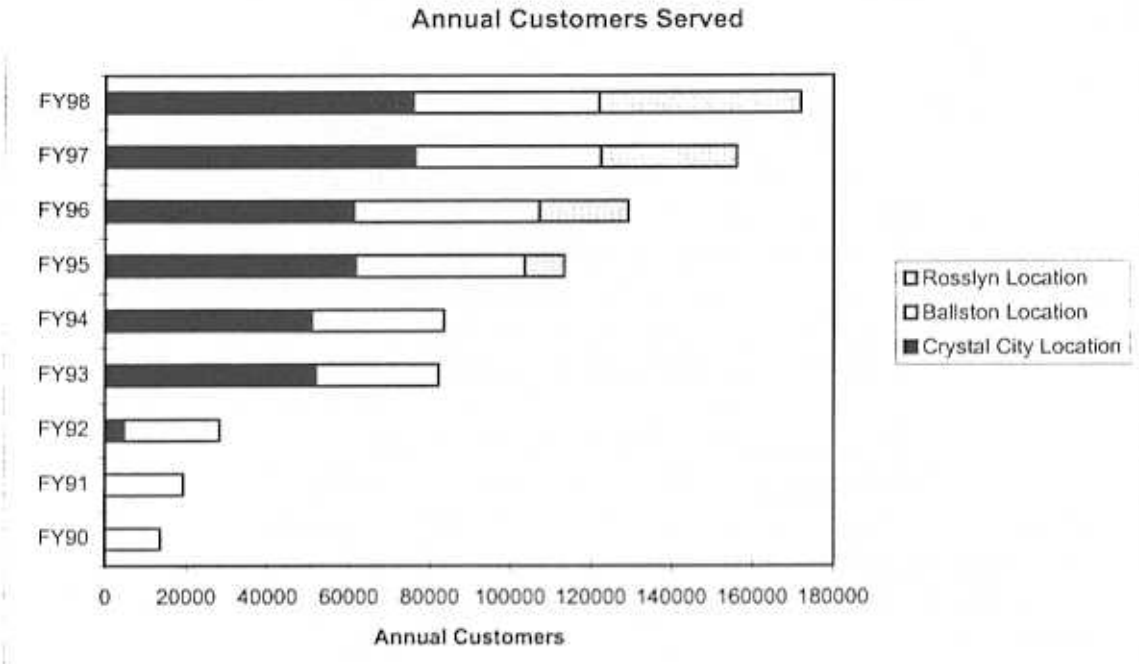
Transportation Management Associations (TMA's) are a relatively new institutional mechanism that can be used to coordinate the needs of activity centers with ridesharing and transit services. These associations have been critical to the opening of the three Commuter Stores in Arlington, and often work closely with both local government agencies and private businesses to ensure that the transportation needs of employees in their areas are met. Some TMA's have also enhanced regional communication through sponsoring conferences on topics of interest to the area and have encouraged new transit services, ridesharing, and highway improvements.

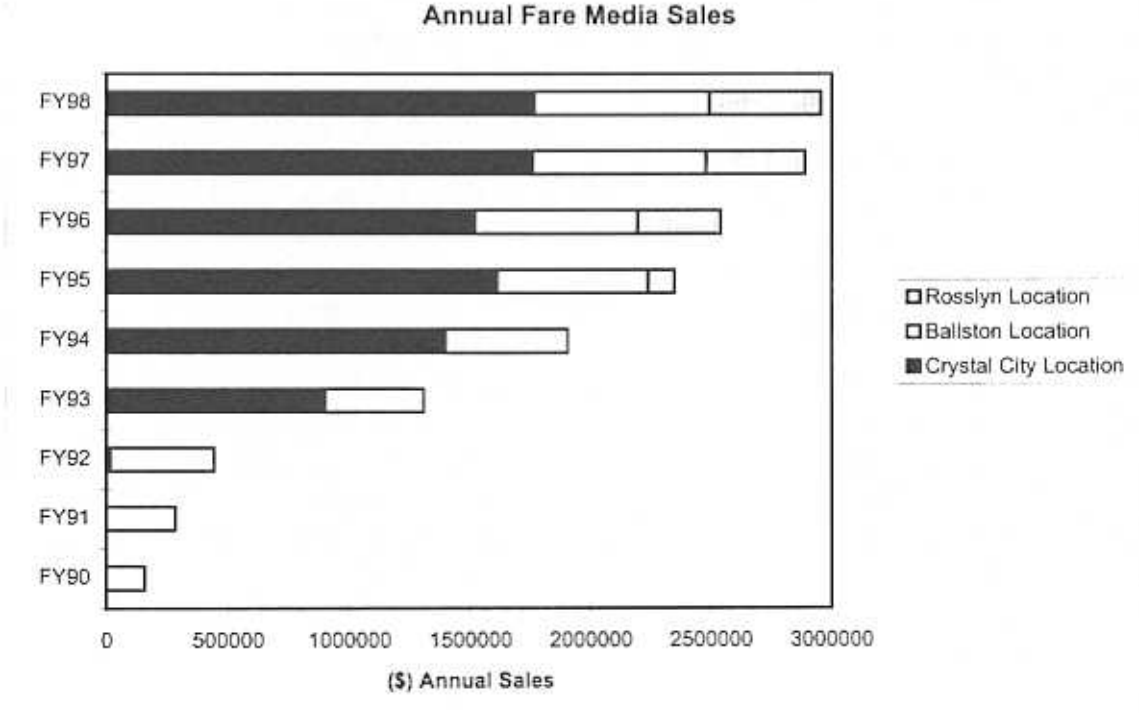
TMA's usually have full- or part-time executive directors or managers who serve at the pleasure of a Board of Directors. This Board generally consists primarily of private business people, with some representation from local governments. Member dues and occasionally grant funds are used to fund the employee outreach programs, surveys, ridematching, and marketing efforts of the TMA's.

Local TMA' s include:

1. **Dulles Area Transportation Association** (DATA) is a non-profit, public-private membership organization serving the 150 square miles around Dulles Airport. Membership of DATA includes

Figure 21: The Commuter Store Service History





employers, public officials, property owners and other corporations concerned with transportation mobility. In 1998, DATA held 12 transportation seminars and fairs.

2. **LINK** is an organization serving the Reston area. Annual events include participation in Rideshare Week, Try Transit Week, and a recognition event to honor exemplary commuters. LINK distributes bus schedule information for the Reston-Herndon area through 9 outlets, including supermarkets and the regional library. LINK's website "www.linkinfo.org" receives over 25,000 inquiries each month.

3. **TYTRAN** is a membership organization of large employers in the Tysons Corner area. The membership is targeted for commuter benefit programs and advocates telecommuting and flextime. In addition to operating vanpool and carpool promotions, they also hold transportation fairs at employer sites.

Ballston-Rosslyn Area Transportation Association (BATA) was established in 1990 to provide free commuter services for employers operating businesses in or relocating to Arlington County. In June of 1998, a majority of the Board of Directors approved the dissolution of BATA. Procedures to complete the official dissolution were still underway in the late summer of 1998. The Arlington County Commuter Assistance Program continues to provide employer and community transportation services through a private contractor who is operating out of the BATA's old office in Rosslyn.

Marketing budgets and contact information for each TMA is shown in **Table 35**.

SECTION 11:

QUANTIFYING THE COSTS AND BENEFITS OF PUBLIC TRANSIT

SECTION 11: QUANTIFYING THE COSTS AND BENEFITS OF PUBLIC TRANSIT

Public transit systems facilitate the movement of people, relieve traffic congestion, improve air quality, reduce energy consumption and promote economic growth. Survey data indicate that public transit enjoys widespread popularity in Northern Virginia; yet, the effectiveness of public transit is often questioned. Virtually every dollar of public expenditures is undergoing scrutiny as emphasis on budget cutting and deficit reduction continues. In such an environment, it becomes even more important to identify the benefits associated with public transit services. This section summarizes current transportation conditions, and reviews the impact and performance of Northern Virginia transit systems.

Existing Conditions

Commuters in the Washington metropolitan region know that traffic congestion is an increasingly costly and aggravating problem for the area and its 3.9 million residents. In fact, a 1997 study conducted by the Texas Transportation Institute rated the Washington, D.C. metropolitan area second only to Los Angeles in roadway congestion. Delays and fuel costs attributable to traffic congestion were the highest in the nation at $820 per person annually, for a total cost of $2.96 billion.[8]

While congestion problems have traditionally occurred on radial "spokes" leading into the urban core, jobs continue to move out into the suburbs. In 1994, over 52 percent of all commuting trips in the Washington region were estimated to be suburb-to-suburb.[9] Some employers cluster, creating "edge cities" such as Tysons Corner, but many are just part of the low-density development that characterizes the suburbs of this region. The residential population is also spreading outward, as families seek less expensive land, a bigger home far from the city, or -- in the case of some two-worker households -- a location between two distant offices. These land use patterns are the most difficult to serve by traditional transit, which in the past has relied on a large number of people making similar trips.

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[8] Texas Transportation Institute (1997). *Urban Mobility Study.*

[9] National Capital Region Transportation Planning Board. (September 21, 1994). 1994 Household Travel Survey of the Metropolitan Washington Region

The two or more-worker household is hard for traditional transit to accommodate for several reasons. The greatest of these is that these families often must squeeze errands in at the beginning and end of the work day, such as dropping off clothes at the dry cleaner on the way to work, stopping by the grocery store on the way home, and taking the kids to and from day care. In addition, at least one parent often wants to have a car available in case of an emergency during the day -- when transit service might not be convenient or operating.

Thus, trips today are often longer, occur from suburb to suburb, and involve multiple stops along the way. All of these factors contribute to the region's congestion, not only on major highways, but on many of the region's arterial and local roads as well.

As part of a regional traffic monitoring effort, the Metropolitan Washington Council of Governments conducts triennial Core and Beltway Cordon Counts, in which the number of vehicles and people crossing imaginary cordon lines around the metropolitan core and the Beltway during the peak commuting periods are counted (see **Figures 22 and 23**). Results of the 1996 Core Cordon count, the most recent conducted, show that region-wide the number of vehicles going into the core decreased by three percent since 1993 while in Northern Virginia, the number of vehicles entering the core *increased* by seven percent.[10]

The Beltway Cordon Count shows that between 1992 and 1995, the number of automobiles crossing the Beltway in Northern Virginia increased by seven percent, while it decreased by one percent in Maryland. The increase in Virginia varied greatly by corridor, increasing by 43 percent in the Dulles corridor, by nine percent in the I-66 corridor, remaining flat along I-95, and decreasing by four percent along Route One.

A look at the more distant future indicates that conditions are not likely to improve. Regional planners expect the regional population to increase by 43 percent between 1990 and 2020, and by 60 percent in Northern Virginia with the outer suburbs experiencing the greatest growth rates (see **Table 37**). The number of jobs is forecast to increase by 71 percent in Northern Virginia and by 44 percent in the region over the same 30 year period. During this time, vehicle trips are predicted to increase by 64 percent, from 12.6 million to 20.6 million per day, and vehicle miles traveled daily are expected to increase by 80 percent, from 101 to 182 million vehicles miles in the region and by 78 percent, from 29.5 to 52.5 million vehicle miles in Northern Virginia. Clearly, both the growth and the dispersion of jobs and people will add to the region's traffic, and will make the provision of effective transit services a greater challenge.

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[10]National Capital Region Transportation Planning Board, 1996 Metro Core Cordon of Vehicular and Passenger Volumes. Washington, DC: May, 1997.

Figure 22

Beltway Cordon Sector and Station Locations

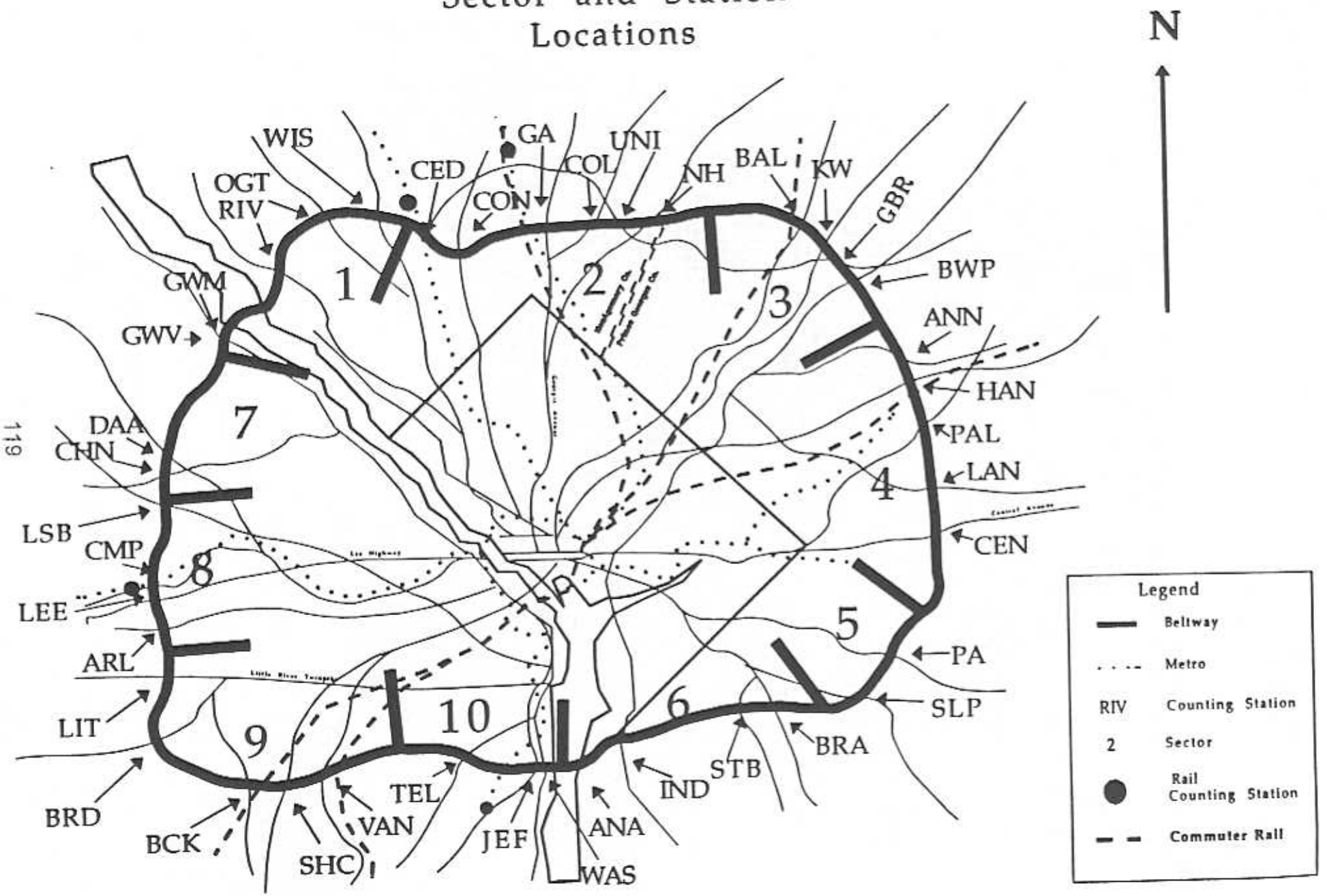

Figure 23

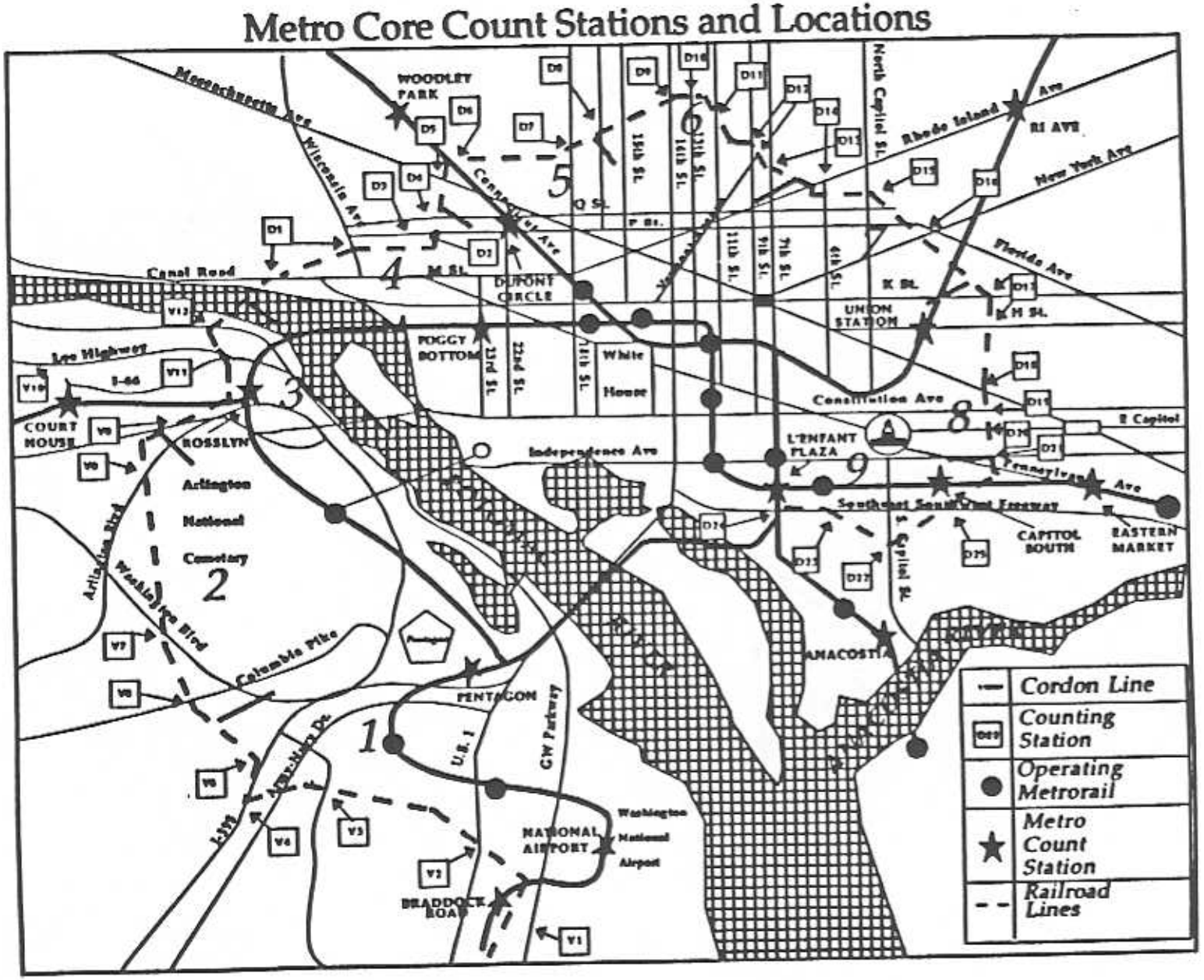
Metro Core Count Stations and Locations
WOODLEY PARK
DUPONT CIRCLE
FOGGY BOTTOM
White House
UNION STATION
L'ENFANT PLAZA
COURT HOUSE
ROSSLYN
Arlington National Cemetery
PENTAGON
NATIONAL AIRPORT
Washington National Airport
BRADDOCK ROAD
CAPITOL SOUTH
EASTERN MARKET
ANACOSTIA
Massachusetts Ave
Wisconsin Ave
Connecticut Ave
Rhode Island Ave
New York Ave
Florida Ave
Canal Road
Lee Highway
I-66
Constitution Ave
Independence Ave
Pennsylvania Ave
Southeast Southwest Freeway
Columbia Pike
Washington Blvd
Arlington Blvd
Jefferson Davis Hwy
U.S. 1
GW Parkway
Cordon Line
Counting Station
Operating Metrorail
Metro Count Station
Railroad Lines

Table 37: Population and Employment Trends in Metropolitan Washington and Northern Virginia Jurisdictions

Jurisdictions	1997 Population ('000)	Forecast Change 1990-2020	1997 Jobs	Forecast Change 1990-2020
NVTC Subtotal:	**1380.7**		**779,920**	
Arlington County	186.4	24.5%	158,659	42.1%
City of Alexandria	117.6	26.7%	83,176	24.3%
Fairfax County	913	47.4%	449,329	70.8%
City of Fairfax	20.2	16.3%	16,158	21.6%
City of Falls Church	10	13.8%	13,653	4.5%
Loudoun County	133.5	244.1%	58,945	289.1%
PRTC Subtotal:	**391.9**		**107,549**	
Prince William	260.3	90.4%	68,440	114.8%
City of Manassas	34.3	44.1%	18,872	36.1%
Manassas Park	9	n/a	2,443	
Stafford County	88.3	85.0%	17,794	195.5%
Northern Virginia Subtotal	**1,772.6**	**60.4%**	**887,469**	**71.7%**
Prince George's County	776.3	29.4%	284,180	45.5%
Montgomery County	832.5	32.1%	393,151	35.3%
Maryland Subtotal	**1,608.8**	**42.0%**	**677,331**	**45.3%**
District of Columbia	**529**	**2.9%**	**614,900**	**11.4%**
Total	**3,910.4**	**43.2%**	**2,179,700**	**44.2%**

Source: MWCOG. (July 8, 1998). Economic Trends in Metropolitan Washington, 1993-1997, round 6a cooperative forcasting.

Although the percentage of the population and job growth is higher in the suburbs than in the core, it is important to keep in mind that the number of people living and working in the core is still increasing. In fact, Washington DC remains the largest single employment destination, and the resulting concentration of demand results in well utilized, effective transit services. Tysons Corner is another area where a concentration of jobs has developed, and a number of initiatives are underway to improve transit service, including express bus service between Tysons and Bethesda, enhanced express bus service along the Dulles corridor, and proposed rail service from Loudoun County via Tysons. More information on plans for enhanced transit service to Tysons Corner can be found in Sections 6 and 7 covering Bus and Rail Services.

Transportation Costs

The ongoing competition for transportation funds has inspired an equally persistent debate over the true costs of transportation and who pays them. Highway advocates argue that public transit requires subsidies while highway travel does not. Transit advocates, on the other hand, argue that highway travel is also subsidized, and in fact, benefits from transit investments.

Efforts to quantify the costs associated with transportation usually lead to debates over the types of costs that should be included and the methodologies used to calculate the various costs. For example, controversy has arisen as to whether the value of travel time should be included in cost estimates as well as the way time is valued when comparing transportation costs for different modes. Typically, travel time is calculated as a percentage of the average wage for the region. As a result, costs associated with pedestrian and bicycle trips are high because travel time is longer. While it is consistent to use one value for travel time, it has been argued that people place different values on time spent walking and biking than on time spent sitting in traffic or waiting at a bus stop because they consider the former activities to be enjoyable. Some may even argue that costs associated with travel time should not be included in the calculation at all. Similar arguments are made in reference to the methodology for calculating many other costs. While many studies have been commissioned to explore the true costs of transportation, each takes a somewhat different approach and a wide range of results has been reported.

In July, 1996 MWCOG hired a consultant to review the costs of auto use that have been identified in other transportation cost studies. The review was not intended to quantify costs particular to the Washington area. Rather, the study focused on defining user, public, private and external costs associated with auto use, comparing the cost estimates from previous reports, and identifying policy implications.

The review of previous cost of driving studies showed total driving costs ranging from $0.45 to $0.84 per vehicle mile, which puts driving costs in the

Washington metropolitan area somewhere between $14 and $28 billion per year. Based on the combination of development patterns, congestion levels, air quality and parking characteristics in the Washington area, the report concluded that the region would probably be near the upper bounds of the range. Direct user fees (ownership, operations and maintenance costs) are estimated to cover between 52 and 76 percent of driving costs.

A comparison of transportation costs by mode has not been done for the Washington metropolitan area to date; studies for other urban areas generally conclude that user fees do not cover the full costs for any travel mode. Society often chooses to provide public services without the expectation that users will pay the full cost of the service (e.g. public libraries). Public transit does cover a portion of operating costs directly from users (see **Table 38** below), and other benefits from transit can also be quantified.

Public Versus Private Service Costs

Some critics of public transit claim that private sector operation would be more cost effective. Local governments have the ability to select bus service from a variety of public and private bus service operators. DASH, Loudoun Commuter Service, Arlington Trolley, and Fairfax Connector are all operated by private firms. One example of combined public and private sector involvement in public transit is the VRE which has a track lease agreement with private sector owners, and a contract with Amtrak for train operations and maintenance.

The issue of whether private operators provide lower cost service is not easily answered. Just as there are many ways to calculate the cost of driving, there are a number of factors that complicate the public versus private cost calculation, including the acceptance of federal capital and operating support, the value of staff time spent procuring and managing the service, and the age of the system.

While one of the major sources of funding for public transit systems has been the federal government, all recipients of federal funds must comply with specific procedures and requirements that often raise labor costs. Federal labor regulations, for example, are often credited with causing significant increases in operating costs. Where private sector operations are found to be less costly to provide, funding must be generated solely from state and local sources for which there is greater competition.

One way that public and private transit costs might be unfairly compared is the calculation of administrative and management costs. For example, when service is contracted out, the contract is likely to include capital and operating costs, but some of the overhead costs may be borne by the contracting agency. Jurisdictional or agency staff time spent planning routes and managing the

Table 38: Northern Virginia Public Transit Systems Operating Statistics and Performance Indicators, FY 1998

				PRTC						Loudoun	
	Metrobus [1]	Metrorail [2]	Fairfax Connector	OmniRide	Omnilink	VRE	DASH	CUE	Arlington Trolley	Commuter Service	Transportation Assoc.
Total Annual Passenger Trips for FY 98 *(Including Transfers)*	16,661,001	31,919,670	4,724,428	586,760	341,825	1,501,915	2,293,493	874,968	87,857	142,387	37,496
Number of Peak Vehicles	261	760	103	46	17	62	27	8	2	9	8
Average Age of Fleet	9.6	15.2	7.9	9.5	4.2	26	8.63	5	9	10	3
Average Weekday Boardings	60,045	167,875	17,499	2,351	1,344	6,008	7,963	3,131	350	565	200
% of VA Boardings	22.5%	62.8%	6.5%	0.9%	0.5%	2.2%	3.0%	1.2%	0.1%	0.2%	0.07%
Passengers Transferring	1,873,860	30,926,016	380,214	42,300	46,742	375,479	489,819	350,000	56,228	n/a	n/a
Average Trip Length *(miles)*	8.0	6.9	7.3	24.7	6.1	33.0	3.13	3.43	0.86	36.44	n/a
On Time Performance	91.8%	n/a	96.7%	93.0%	93.0%	89.9%	96.5%	98.0%	99.0%	95.0%	n/a
Operating Costs	$271,150,100	$384,457,000	$12,766,835	$4,100,941	$2,425,187	$17,424,082	$3,855,823	$1,645,707	$196,073	$777,656	$486,679
Farebox Recovery Ratio	33%	65%	20%	48%	9%	37%	46%	18%	53%	74%	9%
Passenger Miles Traveled	402,675,692	1,077,728,947	34,630,057	14,498,840	2,091,963	56,228,917	7,178,633	3,001,140	75,557	5,188,582	n/a
Operating cost/ passenger mile	$0.67	$0.36	$0.37	$0.28	$1.16	$0.31	$0.54	$0.55	$2.60	$0.15	n/a
Vehicle Miles	40,579,658	44,788,104	4,190,189	1,741,562	703,370	1,600,332	1,081,341	830,090	49,159	225,000	322,560
Operating cost/ vehicle mile	$6.68	$8.58	$3.05	$2.35	$3.45	$10.89	$3.57	$1.98	$3.99	$3.46	$1.51

[1] *Metrobus annual passenger trips, average weekday boardings, number of passengers transferring, average trip length, and number of peak period vehicles are for Virginia only, all other figures are systemwide statistics.*

[2] *Metrorail annual passenger trips and average weekday boardings are for Virginia only, all other figures are systemwide statistics*

contract may not get factored into the cost of the service, thereby creating a situation where transit system costs are not directly comparable.

The age of the system also affects the cost calculation. Capital costs associated with bus purchases are not always included in the contract price. In addition, employee benefit costs are much lower for newly hired employees than for employees that have been with an organization a long time. These are some examples of how private and public system costs may differ and the factors that may complicate a true cost comparison.

A recent analysis of 142 bus service providers concluded that contract service is not always cheaper than directly operated service, but identified two variables that most influenced cost effectiveness. The most influential variable is the ratio of total vehicle-hours to revenue vehicle hours, which measures the proportion of time that a bus is actually carrying passengers when on the road. Bus service operated further from the garage results in more dead head hours, and was found to greatly increase costs. The second most influential variable was the ratio of drivers' pay-hours to total bus-hours, which measures the efficiency of labor. Labor contracts often limit the number of part-time drivers that can be hired. As a result, the provision of peak period only service may require that drivers be paid for more hours than work is available. These two variables were found to be better indicators of service costs than the assumption that contract service is less costly than directly operated service.[11]

Several decisions regarding public versus private bus service operations have been made recently in Northern Virginia. WMATA's Regional Mobility Panel classified all Metrobus service as either regional or non-regional. Routes considered to be of regional significance will continue to be operated by WMATA, while each jurisdiction will be able to select the most cost effective operator for non-regional routes. WMATA was also able to negotiate a lower wage rate for new bus service with the union, and as a result, won the PRTC operating contract in a competitive procurement process. Fairfax County has chosen a private operator for the expanded Dulles express bus service. In the case of the PRTC, the buses are to be operated out of a garage in Prince William County, while WMATA public operators do not have access to a garage in western Fairfax or Loudoun Counties from which the Dulles service could be operated. These operator decisions support the report findings cited above, where the proximity of the garage to bus routes was found to be the most influential variable in determining the most cost effective operator.

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[11] McCullough, William, Brian Taylor, and Martin Wachs. (1997). "Does Contracting Transit Service Save Money?" Access No. 11. Fall. Berkley, California.

System Performance and Utilization

Table 38 compares operating statistics and performance measures for Northern Virginia transit providers.

There are many transportation options in the Washington metropolitan area (particularly during peak commuting periods), and a number of factors to consider when choosing a primary mode of transportation. Some of those considerations may include: access to the desired destination, travel costs, ability to drive, parking costs, travel time, level of congestion, safety, convenience, familiarity, and environmental impacts (air quality, fossil fuel dependence). Local travel options include: driving alone, driving with others, riding a bus, taking Metrorail, commuter rail (VRE), a taxi, MetroAccess, private shuttle services, riding a bicycle or walking. Each mode provides service that best addresses the needs of different user groups.

Transit Investment Benefits

Economic development studies have repeatedly found that effective public transit systems serve as economic engines. For example, in a study of Washington, D.C. and Atlanta:

> Average office rents near stations rose with systemwide ridership; joint development projects added more than three dollars per gross square foot to annual office rents. Office vacancy rates were lower, average building densities higher, and shares of regional growth larger in station areas with joint development projects.[12]

In a study commissioned by NVTC, KPMG Peat Marwick found that the Commonwealth of Virginia's investments in Metrorail since 1977 had yielded an annual rate of return of 12.4 percent. Looking to the future, returns are forecast at 19.2 percent annually through 2010. Investment returns for the Commonwealth by 2010 will include $2.1 billion in tax revenue (and $1.2 billion net of contributions to Metrorail); development including 25 million additional square feet of office space, 1.8 million square feet of retail space, 4000 hotel rooms and 31,000 additional residential units; and permanent employment in Virginia of 86,000 additional office jobs, 1,500 retail jobs and 3,500 hotel jobs. The firm's earlier forecasts in 1985, using the same methods, were found to be very accurate.

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[12] Cervero, Robert. (1994). "Rail Transit and Joint Development: Land Market Impacts in Washington, D.C. and Atlanta,", Journal of the American Planning Association Vol. 60, No. 1 Winter.

In Northern Virginia alone, public transit systems provide over 267,000 daily trips. Without its investment in Metrorail, the region would require seven more bridge lanes crossing the Potomac to accommodate peak period travel, as well as additional highway lanes leading to those bridge lanes and additional capacity on the District of Columbia streets. Even for those who wish to continue to drive alone in their automobiles during peak hours, the availability of good public transit is essential to clear some space on the roads.

Regional Significance

The Washington D.C. area ranks second only to Los Angeles in severity of traffic congestion. Some conclude, therefore, that the answer is to build more roads. Building new highways, however, induces additional driving that in turn clogs the highway system even more. "If we build roads, cars will come" is the message of a University of California study that verifies additional roadway capacity induces new auto travel as well as diverting cars from nearby roads.[13] A combination of investments in transit, demand management and highway capacity is necessary to enable the region to grow in a manner that maintains quality of life.

As elected officials and other policy makers plan the transportation future for Northern Virginia and the Washington metropolitan area, the need for comprehensive, accurate data on existing conditions and anticipated trends becomes increasingly clear. An understanding of the dynamics that have created the current conditions, how the systems are performing and the comparative costs and benefits of different transportation modes is vital in making decisions regarding the funding of future transportation projects.

Decisions are further complicated by the interconnectedness of transportation systems. For example, the only major highway in the region where traffic conditions improved overall between 1993 and 1996 was the I-95 corridor where HOV lanes have been extended 11 miles from Springfield to Route 234.[14] The southern extension of HOV lanes improved travel time for both the HOV and general purpose lanes. One of the unforeseen impacts of the highway improvements was a decline in VRE and express bus ridership. The average number of daily trips on VRE declined by almost nine percent between FY96 and FY 97 as more passengers switched to carpools or back into single occupant vehicles.

The change from HOV-3 to HOV-2 on I-66 had a similar effect on Metrorail's Orange Line ridership between Vienna and Rosslyn. Peak period ridership on the Orange Line declined by an average of four percent, and the revenue losses have been estimated at approximately $1,000,000 per year. To

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[13] Do New Highways Generate Traffic? (Fall, 1995). Access, No. 7 pp. 16-22.

[14] Skycomp. (Spring, 1996). Traffic Quality on the Washington Metropolitan Area Freeway System.

mitigate this impact, state funding was provided to encourage ridership through reduced feeder bus fares.

A six to eight year reconstruction of the I-95/395/495 area called the "Mixing Bowl" is scheduled to begin in the spring of 1999, and VDOT is working to develop a plan for reducing congestion during the construction period. Information on the performance of existing transit systems along with recently collected survey data on how people are likely to change their commute will be used to determine the most cost effective mechanisms for reducing single occupant commuting. Another study is assessing the implications of changing from HOV-3 to HOV-2 on I-95 and I-395. Construction on the new Woodrow Wilson Bridge is also expected to occur during the Mixing Bowl reconstruction. Information on the combined impacts of these projects must be gathered and closely monitored to provide decision makers with the necessary tools to minimize the anticipated increases in congestion.

The examples above illustrate the potential impact that individual decisions can have on transportation patterns within the corridor. Each component of the transportation network provides links and alternatives to other modes, so that changes in one area can have unanticipated system-wide impacts. Similarly, TPB's recently completed Cost of Driving study concluded that **corridor specific** driving cost estimates would be more useful than developing region-specific estimates. Corridor specific information would allow for comparison of transportation options, and therefore be of greater value in local planning efforts and policy decisions. System-specific measures of cost and performance and an understanding of the conditions that drive these measures will allow planners and decision makers to maximize the efficiency of the transportation system.

Towards this goal, NVTC has applied for and received funding to collect previously unavailable information from bus passengers using the different bus systems operating in Northern Virginia. Information about where passengers are coming from, where they are going, and how they got there will allow for more efficient system management. Origin-destination data will allow bus routes to be evaluated in terms of how well they serve customers travel demands, rather than just tracking ridership trends on existing routes. As noted above, data regarding travel patterns and behavior is also being collected in conjunction with the Mixing Bowl and HOV 2-3 studies.

Table 39 lists some studies currently underway in the region that address the need for cost and performance information in the transportation planning process.

Table 39: Regional Studies Related to Transportation Costs and Performance			
Study Title	**Lead Agency**	**Status**	**Contact**
Core and Beltway Cordon Counts	MWCOG	Conducted every 3 yrs. Next Beltway Cordon Count in 1999; next Core Cordon Count in 2000.	Jim Hogan (202) 962-3313
Bus Data Collection	NVTC	1998 report to be completed and 1999 data collection to begin in September, 1998.	Heather Wallenstrom (703) 524-3322
Arlington Transportation Service Evaluation Plan	Arlington County	Data will be collected to evaluate county transportation services.	Cheryl Mooty (703) 228-3633
I-95/395/495 Mixing Bowl Reconstruction	VDOT	Data collection to monitor congestion and plan mitigation strategies.	Valerie Pardo, (703) 383-2227
I-95/395 HOV 2-3 Policy Study	VDOT	Assessing the feasibility of switching from HOV-3 to HOV-2 along I-95 and I-395.	Larry Trachey, (804) 786-2814
WMATA Performance Indicator Reports	WMATA	Monthly reports on rail and bus performance presented to the Operations Committee.	Chuck Thomas, (202) 962-1500

Transit service plays a vital role in providing mobility in the heavily congested Washington metropolitan area. Regional forecasts show that the region will continue to grow, especially in suburban areas which are often the most challenging places to serve efficiently. Sustained efforts to gather accurate, consistent information will help decision makers allocate resources in the most efficient manner to promote mobility, minimize costs and congestion, and improve air quality.

SUPPORTING SERVICES AND FACILITIES

SECTION 12:

HOV LANES AND TOLL ROADS

SECTION 12: HOV LANES AND TOLL ROADS

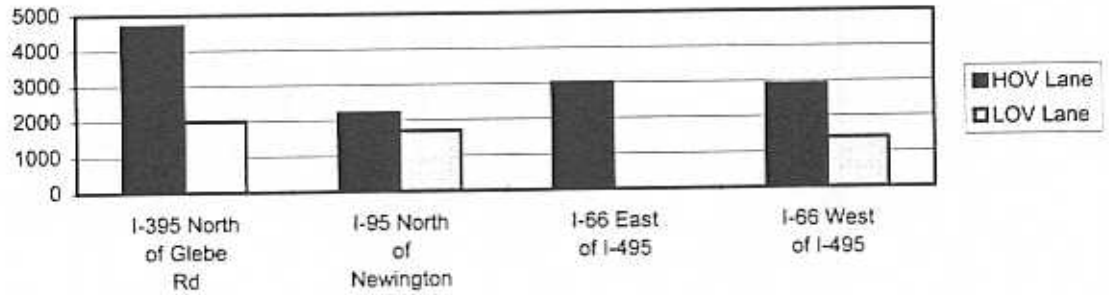
In addition to its extensive highway network, Northern Virginia enjoys one of the country's most successful High Occupancy Vehicle, or HOV, systems. Currently, HOV lanes exist in three corridors: the Shirley Highway (I-395) and a portion of I-95 to the south; the I-66 corridor both inside and outside the Beltway; and on Route One and the George Washington Parkway through Old Town, Alexandria. The region also has two toll roads, the Dulles Toll Road, which will include HOV lanes in the fall of 1998, and the Dulles Greenway. Both utilize Smart Tag, an automated toll collection system which has proved to be very popular with motorists.

Public Perception of Use

One of the area's best kept secrets seems to be that during the restricted period, the HOV lanes on both I-66 and I-95/I-395 actually carry more people in the peak flow direction per lane, per hour than do the conventional lanes. A specific comparison can be found in **Figure 24**, which provides this information by facility.

Table 40 details the existing segments of HOV lanes and the most recent traffic counts available for each. Traffic counts for the traditional Low Occupancy Vehicle (LOV) lanes are also provided. As the numbers show, the HOV lanes are performing as designed, by providing a privilege (reduced travel time) for making what some consider to be a sacrifice (sharing a vehicle). If the HOV lanes were congested, the benefit of carpooling would be reduced. **Table 41** tells the story of just how great that benefit is, with a comparison of HOV versus LOV travel time. The average time savings is about a half an hour on I-66 and nearly 40 minutes on I-95/395.

Figure 24: Persons Per Hour, Per Lane A.M. Restricted Period Fall 1997



Note: Only HOV information is available for I-66, east of I-495 because the facility is HOV only during the peak period.

TABLE 40: FALL 1997 HOV and LOV SUMMARY (AM)

HOV FACILITY*	PERSONS	DIRECTION	RESTRICTED HOURS	AM HOV LANE PERSON MOVEMENT*	AM LOV LANE PERSON MOVEMENT	AM HOV LANE PERSONS PER LANE, PER HOUR*	AM LOV LANE PERSONS PER LANE, PER HOUR
I-395 Count North of Glebe Road	HOV-3	Northbound	6:00 A.M. - 9:00 A.M.	28,400 (2 LANES)	24,900 (4 LANES)	4,733	2,075
I-95 Count North of Newington	HOV-3	Northbound	6:00 A.M. - 9:00 A.M.	13,200 (2 LANES)	20,000 (4 LANES)	2,200	1,666
I-66 - Inside Beltway Count east of I-495) (Road only for HOV use)	HOV-2	Eastbound	6:30 A.M. - 9:00 A.M.	15,100 (2 LANES)	N/A	3,020	N/A
I-66- Outside Beltway Count West of I-495	HOV-2	Eastbound	5:30 A.M. - 9:30 A.M.	11,700 (1 LANE)	16,600 (3 LANES)	2,925	1,383
ALEXANDRIA: Washington Street Patrick Street/Rte. 1	 HOV-2 HOV-2	 Northbound Northbound	 7:00 A.M. - 9:00 A.M. 6:00 A.M. - 9:00 A.M.	N/A	N/A	N/A	N/A

Sources: *Metropolitan Washington Council of Governments*
Alexandria Transportation and Environmental Services Department

Includes automobiles, vanpools, motorcycles, and buses during the restricted period. Also includes **violators.*

TABLE 41: AM PEAK PERIOD HOV VERSUS LOV TRAVEL TIMES

FACILITY	HOV LENGTH	HOV TIME	LOV TIME	MINUTES SAVED WITH HOV	MINUTES SAVED PER MILE
I-95/395 **VA 619 to VA 110**	27.6 Miles	26 Minutes	65 Minutes	39 Minutes	1.41
I-66 **Route 234 to T.R. Bridge**	27.5 Miles	43 Minutes	71 Minutes	28 Minutes	1.02

Source: Metropolitan Washington Council of Governments

Note: Times were computed for the maximum HOV facility length in Fall, 1997.

Violations

In this region, violation rates have been shown to vary significantly based on the time of day and type of facility. Barrier separated lanes have traditionally had lower violation rates than diamond lanes. Furthermore, many of the violations happen during the "shoulder" or first and last half hour of the restricted period, meaning that the violation rate is very low during the remainder of the HOV period. In an effort to discourage all violators, current fines range from $79 for the first offense to $529 for the fourth offense.

According to VDOT policy, once the HOV period begins, all non-HOV vehicles must leave the highway at the next exit. State police have begun enforcing this requirement, since otherwise these "shoulder" periods become very crowded, which reduces the incentive for people to use carpools. The long distances now traveled on HOV lanes make such a policy necessary. For example, a driver could enter the HOV lanes five minutes before the restricted period begins and travel 30 miles in the HOV lanes. This practice seems unfair to those who have established carpools in order to take advantage of those lanes. Some local judges have chosen to interpret the rule differently, and have questioned tickets written soon after the HOV period begins. VDOT has since developed signs on I-95/395 with new wording that states that non-HOV drivers must take the next exit off the HOV lanes once the restricted period begins. On I-66, however, single occupancy drivers traveling to Dulles Airport are legally able to travel on the HOV lanes. In addition to making enforcement more challenging, this policy also skews the violation rates recorded for the facility as violators and airport traffic cannot be distinguished.

Average Auto Occupancy

The average auto occupancy is often used as a measure of motorist compliance with HOV restrictions. In addition, when recorded over time, it can also provide information on HOV behavior and trends. **Table 42** provides the average auto occupancy rates on the major HOV corridors in the region.

Motorcycles on HOV Lanes

Although motorcycles were previously banned from Virginia's HOV lanes, the Commonwealth Transportation Board (CTB) authorized a two year demonstration allowing motorcycle travel on HOV facilities. With only five motorcycle accidents occurring during the trial period, the policy was continued with VDOT monitoring accident rates.

TABLE 42: AM AVERAGE VEHICLE OCCUPANCY TRENDS

HOV FACILITY	1993		1996		1997	
	HOV LANES	LOV LANES	HOV LANES	LOV LANES	HOV LANES	LOV LANES
I-95/395 Inside the Beltway	3.17*	1.16*	2.98* (⇩ from 1993)	1.13* (⇩from 1993)	2.70 (⇩ from 1996)	1.13 (= 1993)
I-95/395 Outside the Beltway	No Data	No Data	3.25**	1.12**	2.65 (⇩ from 1996)	1.11 (⇩ from 1996)
I-66 Inside the Beltway (Road HOV only)	2.49* (HOV-3 required in 1993)	N/A	1.82* (⇩ from 1993)	N/A	1.84 (⇧ from 1993)	N/A
I-66 Outside the Beltway	N/A	N/A	2.04**	1.09**	2.03 (⇩ from 1996)	1.07 (⇩ from 1996)

Source: *Metropolitan Washington Council of Governments*

Note: AM counts taken from 6:00am - 9:00am on I-95/395 and 6:30am to 9:00am on I-66
** 1993 and 1996 data are taken from the Spring Metro Core Cordon Counts*
*** 1996 data are taken from the Spring Northern Virginia HOV monitoring project*

HOT Lanes

A less traditional option for the area may be the introduction of High Occupancy Vehicle Free/Toll Others (HOT) lanes, which were first implemented in southern California on the SR91 Express Lanes. HOT Lanes are also in operation in San Diego on I-15 and in Houston on the Katy Freeway. Over ten additional HOT lane projects are proposed, primarily in the West and Midwest.

These lanes are operated with the objective of assuring free flow conditions (Level of Service C or better) by limiting the type and number of vehicles in a lane without denying access altogether. This limitation occurs by restricting use to HOV lanes and those willing to pay. On the eight miles of HOT lanes on I-15 in San Diego, tolls have ranged from 50 cents to $4, depending on traffic volumes. In cases where there is exceptionally heavy demand due to a situation such as an accident, tolls can jump to the maximum of $8. As motorists approach the toll lane, electronic message signs provide information on the current toll.

In its first year of operation, the SR91 Express Lanes generated over $7 million in revenue and $730,000 in net income, once the operating expenses and debt service were paid. Non-facility specific revenue estimates of HOT lanes have ranged from $382,000 to $764,000 per mile, per year, depending on usage. Any profits can then be used for transportation improvements to the corridor, such as transit. While there was concern over the development of a two-tier system in which the lanes were only being used by affluent motorists, surveys of SR91 and I-15 have shown a broad range of drivers using the lanes. Concern over enforcement is still present, however, as violation rates remain an issue in some areas. On SR91, 35 cameras have been set up to monitor the lanes and a California Highway Patrol substation was built next to the toll plaza.

Improvements to Current System

Currently, there are several HOV initiatives in the region. The information which follows details plans and progress concerning extensions, additions, and policy changes.

I-95/395 Corridor

VDOT has extended the reversible HOV lanes on I-95 south. The project opened in stages, as sections were completed. In February of 1997, the final section of the HOV extension opened, extending lanes through Rt. 234 in Prince William County.

Commuters stuck in traffic in the LOV lanes of this corridor often see traffic in the HOV lanes traveling at 55+ miles per hour, which over time has led to the perception that the HOV lanes are underused. Last year, concerns regarding this

issue on I-95/I-395 were raised. Based on a directive from the Secretary of Transportation, the Virginia Department of Transportation (VDOT) initiated a policy study to consider reducing occupancy requirements from HOV-3 to HOV-2 on I-95/395 from the Potomac River to Rt. 234 in Prince William County. The study will consider options such as changing HOV on all or part of the corridor, changing the restricted hours, and improving access and egress.

A number of concerns regarding this study have been expressed by citizens, local jurisdictions and transit agencies. One of the primary issues is that a loss in roadway efficiency could occur. Consideration should be given to the fact that even if the highway becomes more effective at moving cars, it may actually move fewer people and divert riders from transit and carpools. Finally, concerns have been raised that a change in policy would put more cars on the road just as the construction of the Springfield Interchange is beginning. As a great deal of time and money is being dedicated to keeping cars away from the construction site, any decision to add more cars must be evaluated carefully. More information on this study is included in Section 5: Regional Studies.

I-66 Corridor

I-66 opened in late 1982 with a HOV-4 status during peak direction, peak period operation. As a result of federal legislation, several subsequent changes have occurred. In January of 1984, the HOV requirement was reduced to three, and further reduced to HOV-2 in March of 1995 after a one-year demonstration project. HOV-2 will continue as long as certain thresholds of traffic are not exceeded (1,950 vehicles per lane per hour). If the average volume over a two week period reaches 1,950 then VDOT must report to TPB, triggering a reversion to HOV-3. Counts obtained in the fall of 1997 showed volumes of 1,860 vehicles per lane, per hour. While this count is still below the threshold, these volumes are expected to increase when the HOV lanes open on the Dulles Toll Road in the fall of 1998.

After I-66 shifted to HOV-2, the additional vehicles on I-66 increased the region's automobile emissions and reduced ridership on WMATA's Orange Line. As a result, VDOT agreed to fund a bus fare buydown in the affected corridor until the road reverts to HOV-3. Information on the routes and fares involved in the buydown this year can be found in **Table 43**.

Dulles Toll Road and Dulles Greenway

The Dulles Toll Road, which regularly experiences heavy traffic during peak periods, is currently being expanded by one lane in each direction. This fourth lane will be reserved for HOV-2 traffic during peak periods in peak directions. The design of the road was coordinated with the Dulles Rail Study in order to minimize potential future impacts on the road if rail is also constructed in the corridor. The HOV lanes are scheduled to open in the fall of 1998.

Table 43: FY 1999 I-66 Fare Buydown Program		
Buydown Routes	**Base Fare**	**FY99 Fare**
Metrobus 12C, 12 D, 12 E, 12F, 12L, 12M, 12R, 12S (Centerville to Vienna Metro)	$0.50	$0.25
Metrobus 20F, 20W, 20X, & 20Y (Chantilly to Vienna Metro)	$0.50	$0.25
Metrobus 18R & 18S (Burke Centre, Rolling Valley, West Springfield to Franconia-Springfield Metro)	$0.50	$0.25
CONNECTOR 20A, 20G, 20P (Government Center to Vienna Metro)	$0.50	$0.25
CONNECTOR 101, 102, 103, & 108 (Fort Hunt, Bucknell Manor to Huntington Metro)	$0.50	$0.25
CONNECTOR 109, & 110 (Rolling Valley, West Springfield, Franconia Rd, to Van Dorn, and Huntington Metros	$0.50	$0.25
CONNECTOR 111 (Rolling Valley, West Springfield to Old Keene Mill Rd to Franconia-Springfield Metro)	$0.50*	$0.25
CONNECTOR 202, 204 (Beulah Street, Bren Mar, Fort Belvoir to Franconia-Springfield Metro)	$0.50	$0.25
CONNECTOR 203 (Kingstowne to Van Dorn Metro)	$0.50	$0.25
CONNECTOR 301, 303, 304, 305 & 311Hayfield, Kingstowne, Lorton, Saratoga, Newington Forest to Franconia Springfield Metro)	$0.50*	$0.25
CONNECTOR 5A, 5B, 5C, 5E, 5F, 5G, 5H, 5J, 5R, 5T, 5V, 5W, 5Y, & 5Z	$0.75	$0.50
City of Fairfax CUE Gold and Green Routes	$0.50	Free with Transfer

* *Fairfax County Feeder Bus Fare*

***Note: CONNECTOR 5X and Tysons Shuttle fares to be reduced from $0.75 to $0.50 upon implementation of the Dulles Corridor Express Bus Plan*

The Dulles Greenway, which opened in September, 1995, is one of the few privately constructed and operated toll roads in the U.S. The Greenway extends approximately 14 miles from the Dulles Airport northwest to Leesburg. Two additional lanes and interchanges have been planned should future expansion become necessary, and rail right-of-way has been preserved to allow for future rail extensions to Leesburg.

In July of 1996, the Toll Road Investors Partnership II (TRIP II) missed an interest payment to its bondholders and was forced to seek an agreement to avoid foreclosure on the highway. As congestion on parallel roads like Route 7 becomes worse, and development in Loudoun County increases along the corridor, it is likely that traffic levels on the Greenway will continue to increase. However, TRIP II's experience will likely lead to more careful examination of the revenue projections for future projects before the private sector agrees to provide financing. The Greenway experience also raises interesting questions about how much people are in fact willing to pay to avoid congestion; in this case, TRIP II misjudged the initial market.

Tolls

The level of tolls on the Dulles Toll Road and Dulles Greenway is controlled by the Virginia State Corporation Commission, an independent state regulatory body in Richmond. Greenway tolls are applied to debt service on the highway and then provide a regulated rate of return to private investors. Tolls from the Dulles Toll Road are added to a set aside account to be used by VDOT for debt service, road construction and maintenance, and transit.

One aspect of toll collection that has traditionally been problematic is the reduction in traffic speeds when actually collecting the tolls. VDOT has been working to address this problem through the introduction of the Smart Tag system. This electronic toll collection system can read a transponder on a vehicle's windshield and link that transponder to an account the driver has established to collect the toll. Drivers must pre-pay a minimum of $35.00 to open an account, and may agree to have the account automatically replenished when the balance falls below $10.00.

Table 44 lists agencies and individuals to contact for more information on HOV issues.

Table 44: HOV Contacts		
Subject	**Agency**	**Contact**
HOV Violations	Virginia State Police	Rick Keevill (703) 845-6090
Local HOV Lanes and Occupancy	VDOT	Stephen Read (703) 383-2216
Smart Tag	VDOT	Bill Costis (703) 383-2700
HOV 2-3 Policy Study	VDOT	Larry Trachy (804) 786-2814

SECTION 13:

PARK AND RIDE

SECTION 13: PARK AND RIDE

Park and Ride Lots

To support the network of HOV lanes and transit service, Northern Virginia has provided a growing number of park and ride lots. Specific information on park and ride lots is provided in **Tables 45, 46, 47 and 48** and has been cross checked against the many individual jurisdiction and agency lists to provide the most comprehensive and accurate list as possible. Rankings of pedestrian and bicycle access were based on a staff assessment of the existence and proximity of bike paths, bike lanes, sidewalks, and/or roadway shoulder widths to each of the lots. Together, these lots provide over 37,000 spaces, with more being planned, as listed below in **Table 49**.

Table 49: Percentage of Current Spaces at Park and Ride Lots in Northern Virginia

Type of Lot	Total Number of Spaces	Percentage of Spaces
Metrorail Parking in Northern Virginia	13,753	37%
VRE Station Parking	4,621	12%
Park and Ride Lots Located in the City of Manassas, Prince William County, Spotsylvania County, and Stafford County	11,617	31%
Park and Ride Lots Located in NVTC Jurisdictions	7,378	20%

Bicycle Lockers

The majority of Metrorail park and ride lots have both bicycle racks and lockers. As seen in **Table 50**, these lockers are in great demand at some lots. For example, locker utilization at the West Falls Church Metrorail station is 92 percent. VDOT has initiated a survey to collect information about the bicycle racks and lockers available at other park and ride lots. This project will assess usage type, frequency, and potential locations, through a survey of locker tenants which tracks their trips between June 1, 1998 and August 31, 1998.

Parking Alternatives at the Vienna Metrorail Station

Despite the fact that WMATA provides the greatest number of park and ride spaces in the area, many of the lots are full before 9:00 A.M. each workday. The Vienna Metrorail park and ride facilities have historically been some of the most

Table 45: Metrorail Parking in Northern Virginia

Station	Location	Parking Capacity	Daily Fee	Pedestrian and Bicycle Access	Bus Service
Huntington	Huntington Ave. at Fenwick Dr. Kings Highway north of Fort Dr.	3,090	$2.25	fair bike and pedestrian access	Fairfax Connector, Metrobus
Vienna	Median of I-66 at Nutley Rd.	3,643	$2.25	good bike and pedestrian access	Fairfax Connector, Metrobus, CUE, OmniRide
Dunn Loring	Median of I-66 at Gallows Rd.	1,319	$2.25	good bike and pedestrian access	Fairfax Connector, Metrobus
West Falls Church	Median of I-66 at Leesburg Pike	1,062	$2.25	fair bike and pedestrian access	Fairfax Connector, Metrobus, OmniRide
East Falls Church	Median of I-66 at N. Sycamore Rd.	422	$2.25	good bike and pedestrian access	Metrobus
Van Dorn	Eisenhower Ave. in Alexandria	361	$2.25	poor bike and pedestrian access	DASH, Fairfax Connector, Metrobus
Franconia-Springfield	Franconia-Springfield Pkwy. and Frontier Drive	3,856	$2.25	poor bike and pedestrian access	Fairfax Connector, Metrobus, OmniRide
Total		13,753			

Note: All Metrorail park and ride lots are marked and have bike racks and bus shelters.

Table 46: Parking and Bus Service at VRE Stations

Station	Location	Parking Capacity	Daily Fee	Bus Service
Manassas Line:				
Broad Run/Airport	Piper Lane	300 paved 200 gravel	free	n/a
Manassas	West Street	367	free	OmniRide, OmniLink
Manassas Park	Manassas Drive	300	free	n/a
Burke Centre	Roberts Pkwy	543	free	Metrobus Routes 17L
Rolling Road	Burke Road	367	free	Metrobus Routes 17L
Backlick Road	Hechinger Drive	220	free	Metrobus Routes 18A, B, F; Fairfax Connector 401
Fredericksburg Line:				
Fredericksburg	Lafayette Blvd.	310	108 free spaces for residents-only and 202 spaces for rent	Shuttle from Lee's Hill in Spotsylvania
Leeland Road	Leeland Road	320	free	n/a
Brooke	Brooke Road	300	free	n/a
Quantico	Railroad Avenue	289	free	n/a
Rippon	Farm Creek Drive	300	free	OmniLink
Woodbridge	Express Way	588	free	OmniLink
Lorton	Potomac Bend Blvd.	217	free	Fairfax Connector
TOTAL		**4,621**		

Shared Stations:			**Other Transit Service:**
Alexandria	Callahan Drive	n/a	Metrorail Yellow/Blue Lines; DASH Rts AT2, AT5, AT6 & AT8; Metrobus Rts 28A, 28B, 28C, 29K, N; Amtrak; Fairfax Connector Route 110
Crystal City	South Crystal Drive	n/a	Metrorail Yellow/Blue Lines; Metrobus Routes 5N, 9A, B, C, E, 10A, P11, 13, 23A, C, T; Arlington Trolley
L'Enfant	6th and 7th Street at C Street, NW	n/a	Metrorail Yellow/Blue/Orange/Green Lines; Metrobus Routes A9, 42, 46, 48, 13A, B, C, D, 30, 32, 34, 36, 52, 70, 71, 73, 87, M2, P1, 17, V4; 6 MTA Buses
Union Station	Massachusetts Avenue	n/a	Metrorail Red Line; MARC; Amtrak; MTA Buses; Metrobus Routes 40, 42, 44, 46, 80, 87, 90, 91, 92, 96, D2, 4, 6, 8, M2, X2, 4, 5, 8, 9
Franconia-Springfield	Frontier Drive	3,800	Connector Routes: 109, 110, 111, 202, 204, 301, 303, 304, 305, 311 and 401; Metrobus Routes 18R and 18S OmniRide Shuttle Service

Table 47: Park and Ride Lots Located in NVTC Jurisdictions

Jurisdiction/ Lot Name	Location	Parking Capacity	Bike Racks	Bike and Pedestrian Access	Bus Service	Bus Shelters	P&R Marked
Alexandria:							
Jones Point Park	Off Royal St. under the Woodrow Wilson Bridge	176	no	bike and pedestrian access	Free shuttle service to Old Town	no	yes
Total		**176**					
Arlington:							
Ballston Public Parking Garage	Randolph and Wilson Blvd.	500	no	pedestrian access	Metrobus	yes	yes
Four Mile Run	Columbia Pike and Four Mile Run	24	no	bike and pedestrian access in vicinity	Metrobus	yes	no
Washington-Lee	N. Quincy & N. 15th St.	350	yes	excellent bike and pedestrian access	Metrobus	n/a	yes
Total		**874**					
City of Fairfax:							
Kutner Park	Jermantown Rd. North of Main St.	50	yes	bike and pedestrian access	Metrobus, Cue	no	yes
North Street	Old Lee Highway and North St.	96	yes	bike and pedestrian access	Metrobus, Cue	no	yes
Sipan Lot	North St. and University Drive	86	yes	bike and pedestrian access	Cue	no	no
Total		**232**					

n/a = information not available
* Official VDOT park-and-ride lot

Table 47: Park and Ride Lots Located in NVTC Jurisdictions

Jurisdiction/ Lot Name	Location	Parking Capacity	Bike Racks	Bike and Pedestrian Access	Bus Service	Bus Shelters	P&R Marked
Fairfax County:							
Ames Department Store	6457 Edsall Rd (E. of I-395)	23	no	n/a	Metrobus, Fairfax Connector	no	no
Blackies House of Beef	6710 Commerce Street near Bowie St.	183	no	some pedestrian access	Fairfax Connector	no	yes
Bowman Towne Lot	Bowman Town Road west of Reston Parkway	60	no	good bike and pedestrian access	Fairfax Connector near by	no	yes
Canterbury Woods Park	Wakefield Chapel Road	34	no	some pedestrian access	Metrobus nearby	no	no
Cardinal Forest Plaza	Old Keene Mill and Rt. 638	80	no	yes	Metrobus, Fairfax Connector on street	no	yes
Centreville *	U.S. 29 and Stone Rd.	370	yes	some pedestrian access	Metrobus	yes	yes
Centreville Square Shopping Center *	Rt. 28 &29	220	no	some pedestrian access	Metrobus	no	yes
Centreville United Methodist Church *	New Braddock Rd. and Rt. 28	147	no	some pedestrian access	Metrobus	yes	yes
Chi-Chi's Restaurant	7010 Old Keene Mill Rd., Rolling Valley Mall	65	no	some pedestrian access	Metrobus	no	yes
Fairlanes Bowling	13814 Lee Highway (Rt. 29 next to Centerville Plaza)	35	no	n/a	n/a	no	yes
Fair Oaks Mall	Interior Mall Rd. and Rt. 50	150	no	n/a	Metrobus	no	no
Fairfax Government Center	Government Center Pkwy and Post Forest Dr.	170	no	n/a	Fairfax Connector	no	yes
Greenbriar Park	Melville Lane, near Stringfellow Rd.	55	yes	good bike and pedestrian access	Metrobus	no	no
Hechinger	6555 Little River Turnpike, Annandale	56	no	n/a	Metrobus	no	no

n/a = information not available
* Official VDOT park-and-ride lot

Table 47: Park and Ride Lots Located in NVTC Jurisdictions

Jurisdiction/ Lot Name	Location	Parking Capacity	Bike Racks	Bike and Pedestrian Access	Bus Service	Bus Shelters	P&R Marked
Fairfax County:							
Nottoway Park	Courthouse Rd. near Nutley St.	14	no	good pedestrian and bike access	n/a	no	no
Parkwood Baptist Church	8726 Braddock Road	18	no		Metrobus	no	no
Poplar Tree Park	Stringfellow Rd. near Fair Lakes Pkwy.	279	no	pedestrian and bike access	Metrobus	no	no
Reston East	Wiehle Avenue	827	yes	pedestrian and bike access	Fairfax Connector	yes	yes
Reston North *	Corner of Sunset Hills and Wiehle Ave.	320	yes	good pedestrian and bike access	Fairfax Connector	yes	yes
Reston South	Fox Mill Rd. at Lawyers and Reston Parkway	400	yes	good pedestrian and bike access	Fairfax Connector	yes	yes
Ridge Ford Drive	Shana Place and Burke Rd.	367	yes	some pedestrian access	Metrobus and VRE	no	no
Rolling Valley *	Old Keene Mill Rd. East of Shiplett Blvd.	628	no	some pedestrian access	Metrobus, Fairfax Connector	yes	yes
South Run Park	Fairfax County Pkwy, & Lee Chapel Road	340	no	n/a	Metrobus	no	no
Springfield Mall	Mall parking lot on Spring Mall Rd. between Frontier Dr. and Loisdale Rd.	80	no	some pedestrian access	Fairfax Connector	no	yes
Springfield Plaza	Bland St. between Old Keene Mill Rd. & Amherst Ave.	155	no	some pedestrian access	Metrobus, Fairfax Connector	yes	yes

n/a = information not available
* Official VDOT park-and-ride lot

Table 47: Park and Ride Lots Located in NVTC Jurisdictions

Jurisdiction/ Lot Name	Location	Parking Capacity	Bike Racks	Bike and Pedestrian Access	Bus Service	Bus Shelters	P&R Marked
Fairfax County:							
Springfield United Methodist Church	7047 Old Keene Mill Rd. (entrance on Spring Rd.)	48	no	some pedestrian access	Metrobus, Fairfax Connector	yes	yes
St. Paul's Catholic Church	Rippling Pond Dr. and Fair Lakes Pkwy.	100	no	some pedestrian access	Metrobus nearby	no	yes
Sully Station	Stonecroft Blvd. near Westfields Blvd.	140	no	some pedestrian access	Metrobus	yes	yes
Wakefield Chapel Park	Queensbury Rd. and Braddock Road	50	yes	pedestrian and bike access		no	no
Total		**5,414**					
Fairfax County Lot Under Design/Construction:							
Herndon-Monroe	Sunrise Valley Dr. opposite Roark Drive	1,800	To Open in Winter of 1998				
Stringfellow Road	I-66 and Stringfellow Road	360	To Open end of 2000				
Total		**2,160**					
Loudoun County:							
Ashburn Farm	Summerwood Ct. & Ashburn Farm Parkway	20	no	good bike and pedestrian access	none	no	no
Ashburn Village	Grottoes Dr. & Gloucester Parkway	40	no	good bike and pedestrian access	none	no	no
Cascades Park & Ride	Palisades Parkway and Whitefield Place	55	no	some pedestrian access	none	yes	yes
Charles Town Pike	Rt. 9 and Rt. 690 (beside Hillsboro Cemetery)	10	no	n/a	none	no	no
Hamilton Baptist Church	Rt. 7 and Rt. T-710	75	no	easy bike and pedestrian access	none	no	no

n/a = information not available
* Official VDOT park-and-ride lot

Table 47: Park and Ride Lots Located in NVTC Jurisdictions

Jurisdiction/ Lot Name	Location	Parking Capacity	Bike Racks	Bike and Pedestrian Access	Bus Service	Bus Shelters	P&R Marked
Loudoun County:							
Holiday Drive *	Holiday Drive between Shaw Road and Rt. 28	150	no	no sidewalks, bike trail 1 mile away	none	no	yes
Holy Trinity Church	Rt. 7 and Fairview	50	no	n/a	none	no	no
K-Mart	West Market Street	40	no	some pedestrian access	Loudoun Commuter Bus	no	no
Virginia Village Shopping Center	Catoctin Circle and Route 15	40	no	n/a	Loudoun Commuter Bus	no	no
Purcellville *	Route 7 and Hatcher St.	20	no	easy bike and pedestrian access	Loudoun Commuter Bus	no	yes
Shell Gas and Foodmart	Rt. 9 and Wilt Road	30	no	n/a	none	no	no
Sterling Park Shopping Center	Enterprise St. between Sterling Blvd. and Food Lion	45	no	some pedestrian and bike access	none	no	yes
Sterling Walmart	Route 625 and Pacific Blvd., near Rt. 28	107	no	n/a	Loudoun Commuter Bus	no	no
Total		**682**					
Loudoun County Lot Under Construction:							
Western Regional Park and Ride Lot	Dulles Greenway and Rt. 606	750	To Open in end of 2000				
Total		**750**					

n/a = information not available
* Official VDOT park-and-ride lot

Table 48: Other Park and Ride Lots Served by Transit			
Jurisdiction/Lot Name	**Location**	**Parking Capacity**	**Bus Service**
City of Manassas:			
Manassas Junction Shopping Center	Liberia and Rt. 28	84	OmniRide, OmniLink
	Total	**84**	
Prince William County:			
Bethel United Methodist Church	Smoketown and Minnieville	60	OmniRide
Brittany Neighborhood Park	Exeter Dr. at Rt.1	80	None
Cherrydale Road	Cherrydale and Dale Blvd.	20	OmniLink
Christ Chapel Church	Smoketown Rd. and Prince William Pkwy.	20	None
Church of the Brethren	Millwood Dr. and Horner Rd.	29	None
Cloverdale Subdivision	Cloverdale Rd. east of Dale Blvd.	46	OmniRide
Dale Blvd.	Dale Blvd. and Ashdale Circle	15	OmniLink
Dale City Commuter Lot*	Dale Blvd. and Gemini Way	595	OmniRide, OmniLink
Dumfries Shopping Center	Rt. 1 and Graham Park Rd.	55	OmniRide, OmniLink
Featherstone Square	Rt. 1 and Featherstone	15	OmniRide, OmniLink
Good Shepherd United Meth. Church	Dale Blvd. and Birchdale	50	None

* VDOT official park-and-ride lot

Table 48: Other Park and Ride Lots Served by Transit			
Jurisdiction/Lot Name	**Location**	**Parking Capacity**	**Bus Service**
Old Bridge Festival Shopping Center	Old Bridge Rd. and Cricket Lane	75	OmniRide, OmniLink
Harbor Drive Commuter Lot*	Harbor Dr. and Minnieville	200	OmniRide, OmniLink
Hechinger's Old Bridge*	Lake Ridge Rd. and Rt. 123	385	OmniRide, OmniLink
Hillendale*	Hillendale and Dale Blvd.	241	OmniRide, OmniLink
Horner Road*	Horner Rd. (Rt. 639) and I-95	600	OmniRide
Independent Hill	Rt. 234 and Dumfries Rd.	28	None
K-Mart, Dale City	Dale Blvd. and Gideon Dr.	92	OmniRide
K-Mart, Sudley Square	Sudley Manor Dr.	200	OmniRide, OmniLink
Kirkdale Drove	Dale Blvd. and Kirkdale	41	OmniRide
Lake Ridge Commuter Lot*	Minnieville Rd. and Old Bridge Rd.	700	OmniRide, OmniLink
Lindendale Lot*	northside of Dale Blvd. one block west of Lindendale Rd.	214	OmniRide, OmniLink
Manassas Mall	Rt. 234 and Rixlew	84	OmniRide, OmniLink
Manassas Mall/Montgomery Wards	Rt. 234 and Irongate Way	425	OmniRide, OmniLink
Marumsco Plaza	U.S. 1 and Longview Dr.	200	OmniRide, OmniLink
Montclair Commuter Lot*	Dumfries Rd. (Rt. 234) south of Stockridge	50	OmniRide
North Forestdale Avenue	Forestdale Ave. and Dale Blvd.	15	Omnilink

* VDOT official park-and-ride lot

Table 48: Other Park and Ride Lots Served by Transit			
Jurisdiction/Lot Name	**Location**	**Parking Capacity**	**Bus Service**
Portsmouth*	Portsmouth Rd.	620	OmniRide
Potomac Mills	Potomac Mills Circle and Beddeford Way	569	OmniRide, OmniLink
Prince William Square SC	Smoketown Rd. and Gideon Dr.	45	OmniLink
Prince William Stadium	Stadium Lot at County Complex	245	OmniLink
Princedale @ Northton*	Princedale Dr. west of Dale Blvd.	43	OmniRide, OmniLink
PRTC OmniRide Transit Center	14700 Potomac Mills Road	195	OmniRide, OmniLink
Sudley Road	Rt. 234 and Digges Rd.	50	OmniRide
Sudley Town Plaza	Rt. 234 and Rt. 1566	200	OmniRide
Tackett's Mill	Minnieville and Old Bridge Rd.	176	OmniRide, OmniLink
Triangle Lot*	Rt. 619 and Rt. 1	35	OmniRide, OmniLink
I-95 and Rt. 123 Commuter Lot*	I-95 and VA 123	700	OmniRide
	Total	**7,413**	

Spotsylvania County:			
Fredericksburg Commuter Lot	Rt. 3 and I-95/Old Salem Church	705	Private Bus Companies
Rt. 208 Commuter Lot	VA 208 1/4 mile off U.S. 1	302	Private Bus Companies

* VDOT official park-and-ride lot

Table 48: Other Park and Ride Lots Served by Transit			
Jurisdiction/Lot Name	**Location**	**Parking Capacity**	**Bus Service**
Rt. 3 Commuter Lot	Rt. 3 west of I-95/Old Salem Church	715	Private Bus Companies
	Total	**1,722**	

Stafford County:			
Garrisonville	Rt. 610 and Rt. 684	775	Private Bus Companies
Falmouth Commuter Lot	Rt. 17 and I-95 (west of Falmouth)	1035	Private Bus Companies
Joint-Use Auxiliary Commuter Lot	Rt. 17 north of Falmouth Commuter Lot	58	Private Bus Companies
Stafford Commuter Lot	Rt. 630 and I-95	530	Private Bus Companies
	Total	**2,398**	

* VDOT official park-and-ride lot

Table 50: Bike Locker Utilization for Virginia Metro Stations

Station	Lockers Installed	Lockers Rented	Utilization Rate
Ballston	0	0	N/A
Clarendon	6	3	50%
Court House	8	4	50%
Crystal City	0	0	N/A
Dunn Loring	20	13	65%
East Falls Church	12	8	67%
Eisenhower	4	1	25%
Franconia-Springfield	8	7	88%
Huntington	6	3	50%
King Street	16	6	38%
National Airport	0	0	N/A
Pentagon	0	0	N/A
Pentagon City	12	9	75%
Rosslyn	0	0	N/A
Van Dorn	6	2	33%
Vienna-Fairfax	40	29	73%
Virginia Square	32	12	38%
West Falls Church	12	11	92%
Virginia Total	**182**	**108**	**59%**

heavily used parking facilities on Metro's Orange Line. As a terminus station, the need for parking continues to grow and has even been cited as a restriction in ridership growth. In 1990, in response to this growing demand, a 1,865 space parking structure was built, adding over 1,400 spaces to the 2,200 existing spaces. In order to provide replacement parking during the 1989 -1990 construction period, a lot was built at the privately owned Hunter's Branch development, south of the station. While it was closed after construction was completed, a further demand for parking prompted Fairfax County to arrange for the 450 space lot to be reopened in 1994.

Notwithstanding all the expansion mentioned above, the demand still significantly exceeds capacity. As originally planned, the Hunter's Branch parking facility will close in Fall, 1998 to accommodate planned development, which will intensify the need for more parking. WMATA and Fairfax County staff are currently exploring options for a temporary replacement lot, including providing shuttle service to the Vienna station.

Beyond the immediate concern over the closing of the Hunter's Branch lot, there appears to be a general need for additional capacity at the Vienna station. In October 1997, the Fairfax County Board of Supervisors directed county staff to work with WMATA in developing a plan which is estimated to add approximately 1,500 - 2,000 additional parking spaces at the station. In April 1998, the Board requested that a feasibility study be undertaken to analyze additional parking alternatives, including the size and location of additional parking. The study began in the summer of 1998 and is scheduled to conclude by the end of 1998. Assuming that the feasibility study recommends construction of another parking structure at the station, it is anticipated that the facility could be completed by Fiscal Year 2003.

WMATA Permit Parking Program

As major parking expansion projects are not possible at all stations, WMATA is pursuing parking programs which help improve the parking situation without adding capacity. One such program is permit parking services, which offers both guaranteed parking and prepaid first-come, first-serve permit parking.

In November 1997, a demonstration program began in which both guaranteed parking and prepaid first-come, first-serve parking were tested at a select number of stations including: Anacostia; Greenbelt; Minnesota Avenue; Twinbrook; and West Falls Church. While the demonstration program was originally scheduled to last until April 1998, a decision was made in April to extend the program for another six months.

The program itself was designed to retain riders by providing more predictability and convenience. Specifically, it provides assurance to late arriving

customers that they will have a space. If a guaranteed parking customer arrives to find that all of the guaranteed spaces have been taken, he/she will be provided a space at an alternative location at no cost. As shown in **Table 51**, the price is higher than the daily rate, so customers pay a premium for a guaranteed space.

The second component of the project is the prepaid, monthly parking permit program. This program took place at the stations listed above which offered guaranteed parking, plus the Franconia-Springfield lot. While there is no promise that a space will be available, these permits are convenient for customers because no cash is required. The price is 20 times the daily rate and if the space is used 22 times per month (the average number of work days per month), a passenger who travels via Metrorail each day would save the cost of two days of parking.

The results of both the guaranteed and prepaid monthly parking permit programs were positive. The guaranteed parking was especially popular and has exceeded expectations. Both programs combined have shown a demand of about 10 percent of parking capacity, and are still growing. In July 1998, the Metro board approved expanding the program to all Metro stations with cashier parking. The proposed schedule shows permits for all stations new to the program being phased in starting in September 1998. All stations should be included in the program by November 1998. Metro officials have stressed the importance of maintaining a balance between permit parking and non-permit parking. As a result, the guaranteed parking program has been limited to 15 percent of the capacity at each lot. If demand exceeds capacity, then a waiting list will be established.

Table 51: Permit Parking Charges at Virginia Lots

Location	Daily Parking Charge	Total No. of Spaces	First-Come, First-Served *(cost/ month)*	Guar. Space *(cost/ month)*
Dunn Loring	$2.25	1,319	$45	$65
East Falls Church	$2.25	422	$45	$65
Franconia-Springfield	$2.25	3,856	$45	$55
Huntington (Lots and Garage)	$2.25	3,090	$45	$55
Van Dorn	$2.25	361	$45	$65
Vienna (Lots and Garage)	$2.25	3,643	$45	$65
West Falls Church	$2.25	1,062	$45	$65

WMATA Carpool Parking Pilot Program

In July 1998, the Metro Board approved a carpool parking pilot program. The program includes the New Carrolton, Huntington, and Shady Grove stations,

which already had carpool incentive programs, and the Vienna station, which did not. This program is designed to encourage carpooling by providing reserved carpool parking areas, which will be staffed on all weekdays. In addition to the convenient parking, carpools also receive a discount on parking fees. As shown in **Table 52**, at stations where the parking lots are currently full, such as Vienna, the discount is $1.00 off the regular daily parking fee. At stations where the parking lots are not currently full, such as Huntington, the discount is $.50 off the regular daily parking fee. Carpools are being defined as vehicles with two or more passengers.

Table 52: WMATA Carpool Parking Incentives at Virginia Lots

Location	Total No. of Spaces	Regular Daily Parking Charge	Carpool Daily Parking Charge
Huntington (Lots and Garage)	3,090	$2.25	$1.75
Vienna (Lots and Garage)	3,643	$2.25	$1.25

Contacts are listed below in **Table 53**.

Table 53: Park and Ride Contacts

Subject	Agency	Contact	Phone
WMATA Guaranteed and Permit Parking Options	WMATA	Ron Habegger	(202) 962-2028
Vienna Metrorail Station Parking Expansion	WMATA Fairfax County	Rick Bochner, Todd Wigglesworth	(202) 962-1252 (703) 324-1167
VRE Park and Ride Lots*	VRE	Matt Benka	(703) 684-1001
VDOT Park and Ride Lots	Northern Virginia VDOT	Rahul Trivedi	(703) 383-2223

** Some VRE parking lots are the responsibility of the local jurisdiction.*

SECTION 14:

PEDESTRIAN AND BICYCLE FACILITIES

SECTION 14: PEDESTRIAN AND BICYCLE FACILITIES

Bicycle and pedestrian facilities have too often been regarded as amenities rather than integral parts of the transportation system. Fortunately, this view is changing, as planners and the community in general realize that roadways can be designed to offer multi-modal transportation options for pedestrian, bicycle, and motor vehicle traffic.

Bicycle and pedestrian traffic has increased significantly in Northern Virginia in recent years. For example, a comparison of traffic counts on the Washington and Old Dominion (W&OD) trail in 1988 and 1996 shows a 50 percent increase in bicycle traffic and a 150 percent increase in pedestrian traffic.[15]

Decisions regarding when and where to construct sidewalks and bicycle trails are generally made by local jurisdictions, however, VDOT is increasingly including these facilities in project designs, and is forming a work group that will discuss ongoing roadway improvements and related issues. The group will consist of local bicycle and pedestrian coordinators and meetings will focus on bicycle and pedestrian plans, policy and procedures, current practice, VDOT goals and objectives, and on-going highway projects.

Arlington County routinely induces bicycle accommodations such as indoor parking cages, outdoor visitor bike parking and on-site employee fitness centers with showers and clothing lockers. These enhancements have been provided in new buildings by accepting owner/developer proffers in exchange for permission to exceed by-right building densities in development site plans. Currently, Virginia law does not require bicyclist accommodations and prohibits localities from enacting zoning ordinances that do. The bicyclist accommodations in Arlington County's site plan conditions are a national model for localities facing this problem. The city of Alexandria's "Bicycle Transportation and Multi-use Trail Plan," proposes similar site plan proffers for showers, clothing lockers and bicycle parking in new office buildings. A detailed summary of bicycle and pedestrian projects is provided below in **Table 54**.

Additional information on bike projects in the Washington metropolitan area may be obtained at the these web sites:

- www.waba.org (WABA)
- www.mwcog.org/trans.html (MWCOG)
- www.co.arlington.va.us/arlcty/commute/bike.htm (Arlington County DPW)

[15] MWCOG. (1996). Before and After Study on the W&OD Trail.

Table 54: Bicycle and Pedestrian Infrastructure Extensions and Program Enhancements

Extensions	Location	Status	Estimated Cost	Contact Information
I-395 Underpass on Four Mile Run Trail	Arlington	A bicycle and pedestrian underpass will be constructed for crossing I-395 on the Four Mile Run trail.	$1,120,000	Ritch Viola, Arlington, (703) 228-3699
Columbia Pike-Pentagon Bikeway	Arlington	Onstreet/offstreet bicycle trail to be constructed from Columbia Pike at Washington Blvd. to the Pentagon North parking lot.	$300,000	Ritch Viola, Arlington, (703) 228-3699
Rosslyn-Ballston Pedestrian Amenities	Arlington	Streetscape upgrades including widened sidewalks, street trees, improved lighting and other amenities to be added along the Rosslyn-Ballston corridor.	N/A	Ritch Viola, Arlington, (703) 228-3699
Old Dominion Drive Improvements	Arlington	Sidewalks and bicycling improvements to Old Dominion Drive.	$1,500,000	Ritch Viola, Arlington, (703) 228-3699
King Street Pedestrian Access Improvements	Alexandria	Study to be complete August, 1998. Recommendations will be evaluated to determine specific improvement plans.	To Be Determined	Betsy Massie, Alexandria, (703) 838-3800
Accotink-Gateway Connector Trail	City of Fairfax, Fairfax County	Partial funding approved to construct a trail running from Lake Accotink Park to the Northern Virginia Community College and Vienna Metrorail station.	$900,000	Jenny Pate, Fairfax County, (703) 324-8726
State Highway Improvements	Fairfax County	Various highway improvements, including Dranesville, Lorton and Telegraph Roads, that will involve the addition of on-street bicycle lanes and sidewalks.	N/A	VDOT- Ann Messner, (703) 383-2337 or Fatemah Alladoust (703) 383-2224
Fairfax County Stream Valley Trails	Fairfax County	Bond referendum designating funds to improve stream valley trails over the next 6 years to go before voters on November 3, 1998.	$4,000,000	Jenny Pate, Fairfax County, (703) 324-8726
VDOT Bike Rack Project	Northern Virginia	Funding available to purchase and install 1,000 bike racks over a three year period in Northern Virginia jurisdictions. Locations for the first 291 racks have been identified and installation will begin in October, 1998.	$200,000	VDOT- Ann Messner, (703) 383-2337 or Fatemah Alladoust (703) 383-2224
Clifton Main Street Plaza	Town of Clifton	Phase 1, a bike and pedestrian plaza, has been completed. Phases 2 and 3, bike trails and sidewalks, are scheduled for FY 1998. Phase 4, additional trails, is currently awaing funding approval.	Phase 1: $30,000 Phases 2 & 3: $120,000 Phase 4: $45,000	Jim Hricko, Architect, (703) 830-3082 or Jim Chesley, Mayor of Clifton, (301) 227-1705
Enhancements				
WMATA Bike-on-Rail Program	WMATA System	Bicycles allowed on Metrorail weekdays between 10 am and 2 pm, and 7pm to midnight and all day on weekends. On May 11, 1998, a 6-month trial period was initiated where permits are no longer required for bike access.	N/A	Sharonlee Johnson, WMATA, (202) 962-1116
VRE Café Cars	Fredericksburg Line	Starting in Spring, 1998, café cars were added to VRE trains. Bicycles are accommodated on café cars only.	$4,000	Dave Snyder, VRE (703) 684-1001
Employer Outreach Program	Regional	Developed information on bicycle commuting developed to support employer outreach efforts.	$22,000	Jim Sebastian, MWCOG, (202) 962-3760
ADC Map	Regional	An updated map of regional bicycle routes will be available in September, 1998.	$4,000	Jim Sebastian, MWCOG, (202) 962-3760
Alexandria Bicycle Study	Alexandria	City Council approved study recommendations, including several new (primarily on-road) bike routes.	N/A	Buffy Brownstein, Alexandria, (703) 838-5040

SECTION 15:

AIRPORTS AND AIRPORT ACCESS

SECTION 15: AIRPORTS AND AIRPORT ACCESS

Residents of the Northern Virginia area are fortunate to have two major Virginia airports easily accessible to them – Washington Dulles International and National Airports. In 1997, over 29 million passengers traveled to or from the region through these airports. Both airports are vital to the economic development of the region, and indeed, Dulles Airport is seen as the key to fueling anticipated growth in the Dulles/Route 28 area. Collectively, the airports generated an estimated 25,000 jobs in 1997, with a total payroll of nearly $1 billion.[16] To preserve these advantages, both the quality of the airports and the ease of access must be maintained. The Metropolitan Washington Airports Authority (MWAA) $2 billion capital improvement program includes the expansion and upgrade of parking, runways, airfields, terminal services and facilities. Both National and Dulles airports have recently undergone major capital improvements as part of the program. These improvements are much needed considering the increasing demand being placed on the airports, seen in **Figures 25 and 26**. Listed below are some elements of this effort.

Capital Improvement Programs - National and Dulles Airports

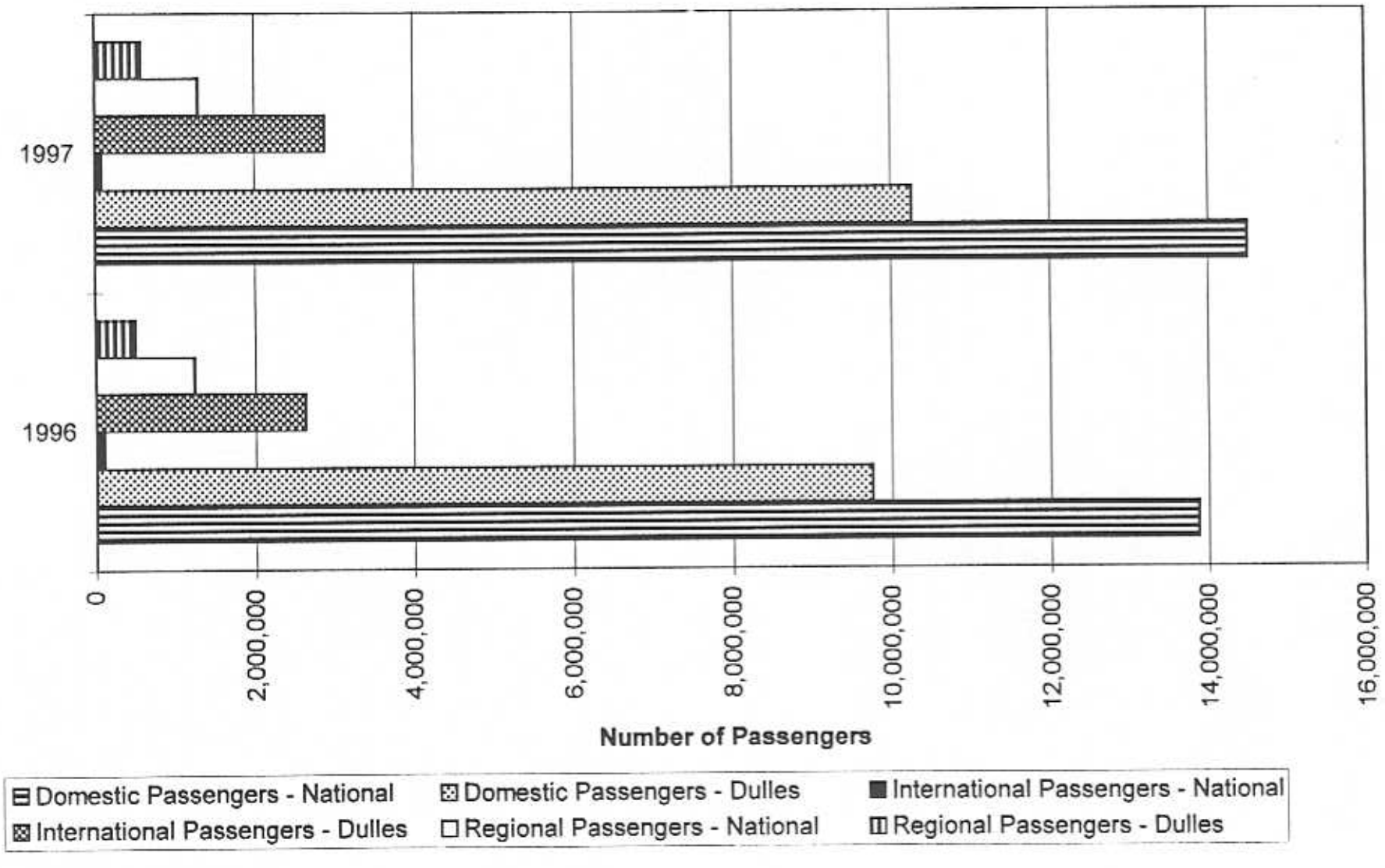
In July of 1997, the $450 million New Terminal at National Airport opened. Now housing terminals B and C, the new terminal was visited by more than 175,000 people before it even officially opened. While receiving acclaim for its architecture, the terminal also offers every amenity and convenience to passengers, including 60,000 square feet of retail space and a meditation room.

In 1997, the Airports Authority completed a major roadway expansion at Dulles International Airport. Eight new lanes, on three levels, were constructed in front of the Main Terminal. With these additional lanes, five lanes are now reserved for departing passengers, five for arriving passengers, and six for commercial vehicles. The 500 parking spaces in the daily and hourly lots in front of the terminal have been restored with the completion of construction, returning the parking total at Dulles to over 10,000 spaces.

Also at Dulles, construction is nearly complete on the $130 million Midfield Concourse B. The concourse opened in February 1998, serving an additional 5,000 passengers daily.[17] Midfield Concourses C and D, which are temporary, will eventually be replaced with permanent structures. Once all this construction has been completed at Dulles, the airport will be capable of serving an estimated 55

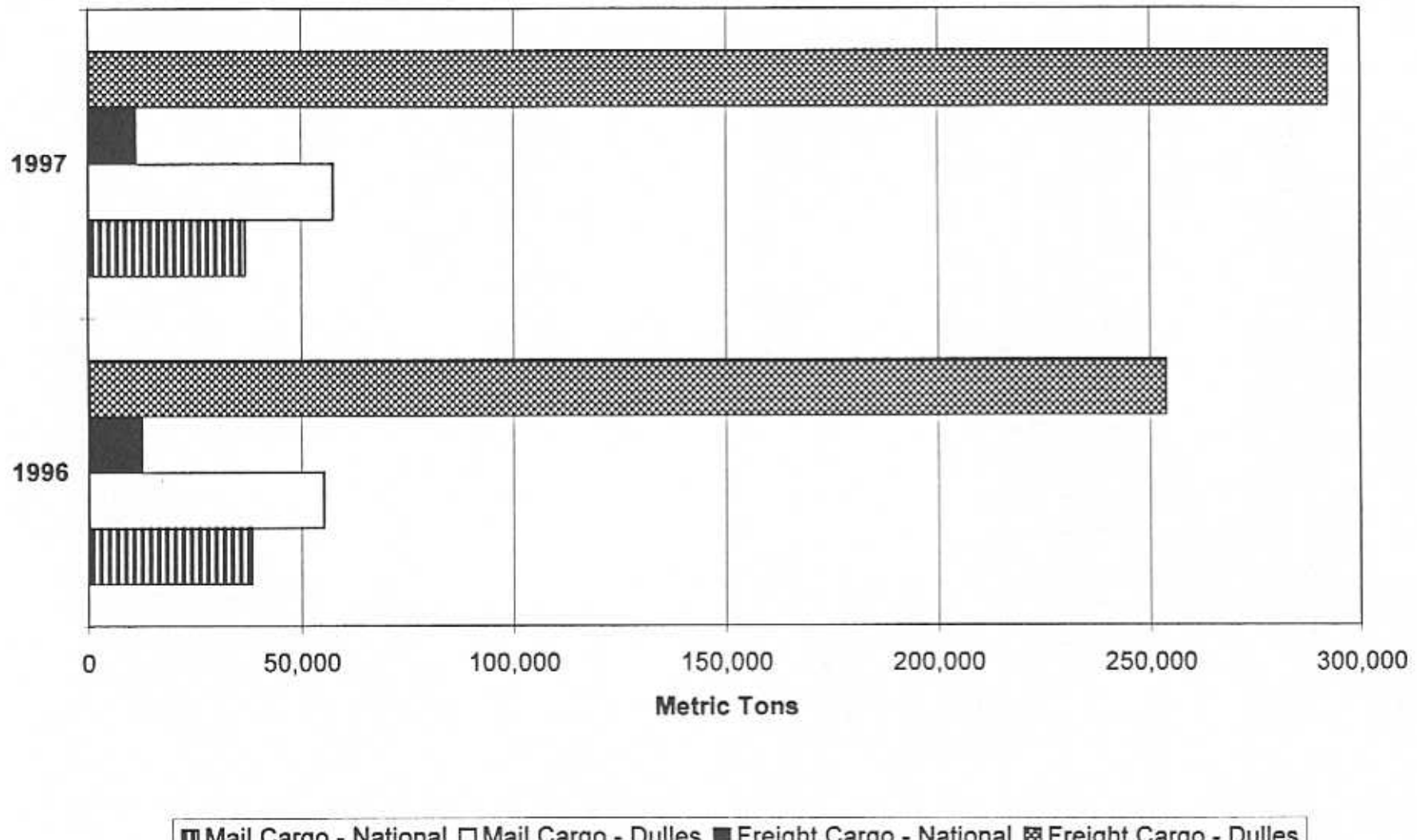
[16] Metropolitan Washington Airports Authority, "1997 Annual Report: A New Era of Flight and Service," p. 1.
[17] Ibid.

Figure 25: Air Traffic Statistics at National and Dulles Airports



Note: Regional passengers include general aviation and/or military traffic.

Figure 26: Cargo Statistics at National and Dulles Airports



million passengers per year and have 144 gates.[18] Future plans for Dulles include the connection of Midfield Concourse B to the Main Terminal by an underground moving sidewalk. The Airports Authority is also considering options which would allow for an underground subway system or "people mover" to be installed. This underground system would then replace the mobile lounges which currently connect the Main Terminal to the Midfield Concourses.[19]

Airport Shuttle Services

In addition to local taxi cab companies, there are also bus and van companies serving the airports. In 1997, Supershuttle began providing door-to-door shared ride van service to and from National and Dulles Airports. Supershuttle was first implemented in Los Angeles and has since expanded to serve several cities across the country. The vans carry up to eight passengers and are limited to three stops per trip to minimize delays. Fares are about half the comparable taxicab rate.

The Metropolitan Washington Airports Authority (MWAA) also operates the Washington Flyer service to several area locations. At Dulles, the Flyer provides bus, van, and taxi service. At National, transportation is provided via bus and van service. Examples of fares and frequency for both the Washington Flyer and Supershuttle are shown in **Table 55** below.

[18] Ibid.
[19] Ibid.

Table 55: Washington Flyer and Supershuttle Fares and Frequency		
Provider	**Fare**	**Frequency**
Supershuttle between Downtown* and National	$6-13 (*fares are determined by zip codes and number of passengers)	Service available 24 hour a day
Supershuttle between Virginia and National	$6-21*	Service available 24 hour a day
Supershuttle between Downtown* and Dulles	$10-22*	Service available 24 hour a day
Supershuttle between Virginia and Dulles	$10-20	Service available 24 hour a day
Washington Flyer Express Bus Service between Dulles and Downtown*	$16 one-way $26 round-trip	Every 30 minutes between 5:20 A.M. and 10:20 P.M.
Washington Flyer Express Bus Service to between National and Dulles	$16 one-way $26 round-trip	Hourly from 5:00 A.M. to 11:00 P.M.
Washington Flyer Express Bus Service between West Falls Church Metrorail and Dulles	$8 one-way $14 round-trip	• Every 30 minutes between 6:00 A.M. and 10:00 A.M. • Every 20 minutes between 10:20 A.M. to 2:00 P.M. • Every 15 minutes between 2:00 P.M. and 6:00 P.M.

Note: Fares to downtown represent the average fare to locations within the District.

For more information, contact the Supershuttle Van Service Customer Service Department at (800) 258-3826 and/or the Washington Flyer Customer Service Department at (703) 685-1400.

Operating Policies at National Airport

As of July 1998, legislation was moving forward in both Houses of Congress which would add slots and/or exempt certain flights from the perimeter rule at National Airport. Local bodies, such as the National Capital Region Transportation Planning Board, have voiced their opposition to these changes, primarily due to potential economic consequences and citizen concerns over the noise of increased flights.

MWCOG Passenger Survey

To monitor changes in customer needs and preferences, MWCOG has conducted a Regional Air Passenger Survey every few years since 1973. This survey includes information from all three regional airports on accessibility and

modes of arrival. **Table 56** below summarizes the update schedule for the airport studies.

Table 56: Additional Airport Studies		
Project Name	**Last Update**	**Next Scheduled Update**
Regional Airport System Plan - Commercial Airports Element	1988	2000
Regional Airport System Plan- Ground Access Element	1993	2001
Regional Airport System Plan - Air Cargo Element	1998	2002
Regional Airport System Plan - General Aviation Element	1999	2004
Regional Air Passenger Survey	1998	2003
Ground Access Travel Time Study	1995	2001

** All projects are conducted as part of the Continuous Airport System Planning (CASP) Program.*

Table 57 lists agencies and individuals to contact for more information on airport issues.

Table 57: Airport Contacts		
Subject	**Agency**	**Contact**
General Airport Information	Metropolitan Washington Airports Authority	Bill Lebegern (703) 417-8160
MWCOG Airport Studies	MWCOG	Ken Flick (202) 962-3295

SECTION 16:

TAXI SERVICES

SECTION 16: TAXI SERVICES

A persistent issue for all taxi and shuttle services has been local reciprocity policies, which limit the ability of taxicabs to pick up passengers in jurisdictions other than the one in which they are licensed. District of Columbia officials have become concerned that cabs from surrounding counties may be picking up passengers in the District, thus causing D.C. cabs to lose business. Each jurisdiction regulates the number of taxis licensed to operate, striving to strike a balance between quick and convenient service for customers and the need for drivers and taxi companies to earn a fair return. The monitoring agencies for each jurisdiction are listed in **Table 58**.

Table 58: Taxi Oversight Contacts

Agency	Contact	Telephone
Alexandria Oversight Office, Hack Inspector's Office	Officer Jim Oaks	(703) 838-4240
Arlington Oversight Office, Hack Inspector's Office	Detective Andy Sekellick	(703) 358-4258
Fairfax County Oversight Office, Consumer Affairs Office	Dave Reidenback	(703) 222-8435
City of Falls Church Oversight Office, Police Department	Alan Freed	(703) 241-5054

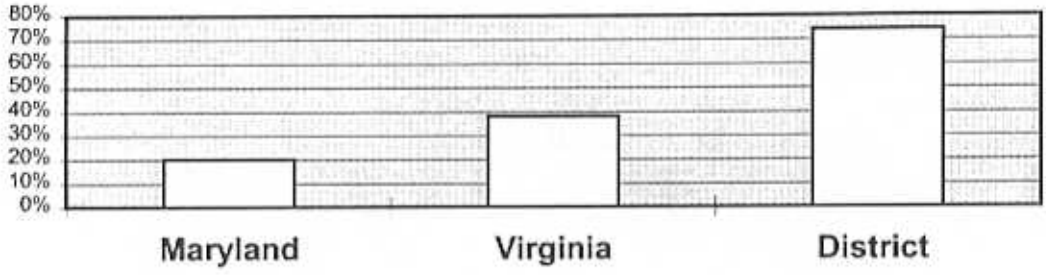
** There is no taxi oversight agency for the city of Fairfax or Loudoun County.*

Seat Belt Use in Taxis

In April of 1997, the District of Columbia enacted a primary belt use law which imposes a $50 fine and two license points to unbelted drivers. For taxi cab drivers, this means that they, as well as any adult passengers in the front or rear seats, must use their seat belts. Only 37 jurisdictions in the country currently have belt laws covering cabs. Washington, D.C. is the first jurisdiction to pass a primary belt law (meaning tickets can be issued for belt violations alone) which penalizes drivers with points. In addition, D.C. is only one of eight areas requiring belt use for passengers in the rear seat.

As shown in **Figure 27**, a study by the Insurance Institute of Highway Safety has shown that a much higher percentage of D.C. cab drivers now use their seat belts than do Virginia and Maryland cab drivers. Research has also found that DC cab drivers wear their seat belts in Maryland and Virginia despite the fact that neither state requires cab drivers to wear seat belts.

Figure 27: Percentage of Cab Driver Seat Belt Use



Source: Insurance Institute for Highway Safety, Status Report, Vol. 33, No. 7

A list of taxi companies, addresses, and telephone numbers by jurisdiction follows in **Table 59**. There are 614 cabs registered in Alexandria, 615 in Arlington, 458 in Fairfax County (including the cities of Falls Church and Fairfax), and 19 in Loudoun County. In Spring 1997, Arlington introduced accessible taxi cabs in their fleet. Fairfax County also has accessible cabs available.

Table 59: Taxi Service By Jurisdiction			
Jurisdiction	Company and Address	Phone	Number of Vehicles
Alexandria	**Alexandria Diamond Cab**, 3035 Mt. Vernon Ave.	(703) 549-1100 (703) 549-6200 (Dispatch)	146
	Alexandria Yellow Cab, 3035 Mt. Vernon Ave.	(703) 549-2500 (703) 549-2500 (Dispatch)	197
	VIP Cab, 3600 Jefferson Davis Hwy.	(703) 549-6900	58
	Columbus Cab, 50 S. Pickett St, Suite 106	(703) 684-7373	45
	King Cab, 104 S. Henry Street	(703) 549-3530	57
	White Top Cab, 3706 Mt. Vernon Ave., #100	(703) 683-4004	111
TOTAL			**614**
Arlington	**Arlington Red Top Cab**, 3251 Washington Blvd.	(703) 522-3333	304
	Arlington Yellow Top Cab, 3251 Washington Blvd.	(703) 527-2222	90
	Arlington Blue Top, 1115 W. Broad St.	(703) 243-8294	145
	Crown Cab Company, 2324 N. Dinwiddie St.	(703) 528-0202	23
	Friendly Cab Company, 3022 S. 22 St.	(703) 892-4144	20
	Hess Cab Company, 2711 Jefferson Davis Hwy.	(703) 841-1555	33
TOTAL			**615**
Fairfax	**Fairfax Red Top Cab**, 11 Hillwood Ave.	(703) 934-4444	74
	Yellow Cab Company, 11 Hillwood Ave. • Annandale Yellow Cab • Bailey's Cross Roads. Yellow Cab • Burke Yellow Cab • Fairfax Yellow Cab • Falls Church Yellow Cab • McLean Yellow Cab • Vienna Yellow Cab	(703) 534-1111	251 (includes all companies in bullets)
	Springfield Yellow Cab, 7956E Twist Lane	(703) 451-2255	72
	Herndon-Reston Cab, 7956E Twist Lane	(703) 451-7200	13
	A. Alexandria Yellow Cab, 7956E Twist Lane	(703) 781-7040	10
	Fairfax White Top Cab, 3706 Mt. Vernon Ave.	(703) 644-4500	38
TOTAL			**458**
Loudoun	**Country Side Cab**, 7956E Twist Lane	(703) 444-2259	2
	Airport Transportation, 22636 Glen Drive, #206	(703) 481-8181	7
	Loudoun County Yellow Cab, 11 Hillwood Drive	(703) 437-9100	5
	Dulles Express Cab, PO Box 815	(703) 404-4444	2
	Sterling Cab Company, 113 W. Church Road	(703) 450-0045	3
TOTAL			**19**

SECTION 17:

INTELLIGENT TRANSPORTATION SYSTEMS

SECTION 17: INTELLIGENT TRANSPORTATION SYSTEMS

Throughout the nation, new technologies that provide information to travelers and transportation agencies are being used to help alleviate congestion and improve highway and transit safety. These new technologies are often referred to as Intelligent Transportation Systems, or ITS, which is essentially a blanket category including any use of advanced technology to address transportation needs.

Over the last few years, a growing number of ITS projects have been planned and implemented throughout the Washington metropolitan area. As the role of technology has grown, steps have been taken to include ITS in the planning process. Goal #4 of the vision plan recently completed by the Transportation Planning Board (TPB) states that "The Metropolitan Washington Region will use the best available technology to maximize system effectiveness." Specific ITS objectives identified in the vision plan include reducing congestion and related incidents; creating a more user-friendly, seamless system; providing accurate and timely information; simplifying payment methods; and improving incident management and system reliability.

To further the goals and objectives listed above, the TPB established the ITS Task Force to coordinate and facilitate the deployment of technology for transportation purposes. Since its inception, the Task Force has coordinated the launch of the SmarTraveler information system (described below in more detail), provided a list of priority projects at the request of Congressman Wolf, and formed a number of working groups to focus on specific issues or goals. More information on the Working Groups is provided in **Table 60**.

While this section focuses on transit related projects, it is important to note that each individual ITS project will become part of a comprehensive multimodal technology system. For example, WMATA's ARTS transit information database was initially developed almost 20 years ago, before anyone knew about ITS. But as the database is upgraded, it will be used in kiosks throughout the region, and allow the SmarTraveler system to disseminate transit routing information via phone and Internet. Traffic management systems work with vehicle locator equipment on buses to allow for signal preemption and monitoring of on-time performance. Real time information on bus location will eventually expand the definition of traveler information by allowing passengers to determine when the next bus will arrive as opposed to just knowing when it is scheduled to arrive. While each of the projects described below brings individual benefits, the combined benefits will eventually change the way people think of and use transportation systems.

TABLE 60: FOCUS AREAS OF THE WASHINGTON REGION INTELLIGENT TRANSPORTATION SYSTEMS (ITS) TASK FORCE, SEPTEMBER 1998

	FOCUS AREA	BACKGROUND	STATUS
1	Integration of ITS into regional long-range transportation plans	The emerging field of ITS is a U.S. Department of Transportation emphasis area, and should be an important component of long-range transportation plans.	The most recent CLRP for the region includes a discussion of ITS. Following the finalization of the TPB's Transportation Vision document, the ITS Task Force will examine further integration of ITS into the next CLRP, expected to be published in 2000.
2	ITS assumptions for transportation Major Investment Studies	Major Investment Studies account for the effects of proposed public investments in transportation infrastructure, but generally do not take into account changes in the operating characteristics of transportation facilities due to emerging and future technologies.	A working group chaired by J.R. Robinson of VDOT has examined efforts around the country, including in Richmond and Seattle, on accounting for the impacts of private vehicle technological advances. George Mason University is to undertake a related study.
3	Electronic payment planning and coordination	Electronic technology can ease, simplify, and unify payment for transportation services, including transit, tolls, parking fees, and other fees and purchases.	A working group chaired by Heather Wallenstrom of NVTC proposed development of a feasibility study and implementation plan. The study is expected to be undertaken in 1999.
4	Regional ITS databases of transit, tourist, and/or parking information	A set of robust and coordinated interagency databases and communications is an important building block for traveler and tourist information services.	The centerpiece of this effort will be improvements in 1999 to the WMATA database for its "ARTS" system (an automated routing and scheduling system). A working group will be chaired by Karen Lamb of WMATA.
5	Interagency coordination of traffic signals, operations and management	Responsibilities for traffic operations and management are held by a number of public agencies in the region. A regional effort can facilitate and improve coordination and information sharing among traffic operations personnel.	A regional traffic signals and operations group has been meeting regularly with Chair Jeris White of VDOT. Focus areas of this group include signal coordination, signal prioritization for transit and public safety vehicles, and professional development and training on advancing technologies for transportation agency personnel.
6	Coordination with Partners In Motion activities	*Partners In Motion* is a public/private consortium of agencies and companies in the Washington region cooperating on programs providing traveler information services. The first main services are marketed under the name *SmarTraveler.*	Telephone and Internet services are operational, available by telephone at (202) 863-1313, #211 from cellular telephones, and at *www.smartraveler.com* on the Internet. SmarTraveler also appears on some cable television systems in the Washington region. Upcoming activities include dissemination of traveler information through independent service providers, such as paging and computer services.
7	Coordination with the Transportation Planning Board and its subcommittees	There are important points of coordination between the ITS Task Force and the TPB, the TPB Technical Committee, the Travel Management Subcommittee, and the Commuter Connections Subcommittee.	COG staff or Task Force/committee members attend or give briefings to other groups.
8	Collection, archiving, and dissemination of ITS-detected data for operations analysis and long-range transportation planning purposes	ITS and other advanced traffic control equipment often collect transportation systems usage data, but rarely archive or transmit these data for future analysis. Operations analysis and long-range transportation planning activities could be improved using data from ITS installations. Challenges include data transmission technologies, costs, and data management.	A working group chaired by Jean Yves Point-du-Jour of the Maryland State Highway Administration recommended a feasibility study and implementation plan. The study is expected to be undertaken in 1998 and 1999.
9	Transit ITS	There are ITS issues specific to transit planning and operations of interest to transit providers in the Washington region.	A working group Chair, Denis Symes of WMATA, has been designated, and was expected to convene a working group in Fall 1998.
10	Planning and funding of ITS studies and projects	As federal one-time "seed" monies for ITS sunset, ITS projects need to be brought into the mainstream of transportation planning and funding decisionmaking.	This topic has been a focus of the full ITS Task Force. Discussions include current, ongoing as well as potential future projects.

Transit related ITS projects in Virginia are summarized below, and a comprehensive list of ITS projects in various stages of planning or implementation throughout the region is provided in **Table 61**.

VDOT Deployment Study

VDOT has completed an early deployment study to identify a strategy for integrating new technologies with existing and planned systems and enhancing coordination between the various jurisdictions and transportation agencies. The District of Columbia and the State of Maryland are conducting similar studies, all of which will be used to guide regional ITS deployment efforts. Based on the study results, VDOT developed a *Smart Travel Business Plan for 1997-2006*, which "will be used to identify, provide justification for, and support projects that meet the vision and goals for ITS in Virginia."[20]

SmarTraveler

Maryland, Virginia, and the District of Columbia entered into a public-private partnership with Battelle and its subcontractors to collect traffic and transit data from public agencies, combine it with additional information from private sources, and make travel information available to the public. Partners In Motion (consortium of public agencies and private contractors) launched SmarTraveler in July, 1997 which provides real time travel information to the public via phone and Internet. Summary information is then disseminated back to participating agencies on a quarterly basis.

The total budget for the three year start up of the Washington Metropolitan Traveler Information Service (WMTIS) project is estimated to be $12.4 million, of which $9 million was provided by federal earmarks with the balance provided by Battelle in cash and in-kind contributions. While federal funding is being used for the start-up phase, the contractors expect profits after year three to cover future operational costs and provide a return on the initial private sector investment.

ARTS

The ARTS route and schedule database was initiated by WMATA in the 1980's to provide trip planning assistance to transit passengers. Information on Metrorail, Metrobus, Alexandria DASH, Arlington Trolley, Fairfax Connector, Fairfax CUE, Montgomery County Ride-On, Laurel Connector and Prince

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[20] Virginia Department of Transportation. (1998 Update). Smart Travel Business Plan, 1997-2006.

Table 61: Status of Current ITS Projects

		Regional	Sub-Reg.	Local	Lead Agency	Location
Freeway and Incident Management						
O	Aerial Video Surveillance Phase I			X	VDOT	FX Co
O	Aerial Video Surveillance Phase II			X	MdSHA	MG CO
O	Chesapeake Highway Advisories Routing Traffic		X		MdSHA	MD
O	MdSHA Traffic Operations Center		X		MdSHA	MD
O	NOVA Traffic Operations Center		X		VDOT	FX/PW Co
O	VDOT ATMS		X		VDOT	NOVA
O	Montgomery County Traffic Operations Center			X	MG CO	MG CO
O	Montgomery County ATMS			X	MG CO	MG CO
R/P	Automated Vehicle Location for VDOT and Police Fleets		X		VDOT	NOVA
R/P	Regional Traffic Operations Center Information Exchange	X			VDOT	NOVA/MD
R/P	Automated Vehicle Location on Maryland DOT & WMATA Fleets		X		MdSHA	MD
R/P	Truck Rollover Projects			X	MdSHA	MD
R/P	Capitol Beltway Ramp Metering/Maryland			X	MdSHA	MD
R/P	Smart Tag Traffic Management		X		VDOT	NOVA
R/P	Road Weather Sensors in D.C.			X	DCDPW	DC
Traffic Signal Systems						
U	Arlington County "Scoot" System			X	Arl. Co	Arl. Co
U	Columbia Pike Signal Prioritization			X	WMATA	Arl. Co
O	Maryland Signal Preemption			X	MdSHA	MD
U	NOVA Traffic Signal System		X		VDOT	NOVA
U	Fairfax City Traffic Signal System			X	city of FX	city of FX
U	D.C. Signal System Upgrade			X	DCDPW	DC
Traveler Information						
O	ARTS Database	X			WMATA	Metro Area
U	Metropolitan Washington Traveler Information Services	X			FHWA, VDOT	Metro Area
U	Fairfax City AVL/GPS Program			X	city of FX	city of FX
U	MWCOG Regional Kiosk Project			X	MWCOG	Metro Area
U	Arlington County Kiosk Project	X			Arl. Co. DPW	Arl. Co.
U	VRE TRIP		X		VRE	NOVA
U	WMATA Kiosk Demonstration Program	X			WMATA	Metro Area
U	Fairfax County Kiosk Program			X	FX Co	FX Co
R/P	Redskins Stadium			X	MdSHA	Stadium
Electronic Payment Systems						
O	Smart Tag		X		VDOT	VA
R/P	Metropolitan Washington Airports Authority AVI Study			X	MWAA	NOVA Airports
U	WMATA SmarTrip	X			WMATA	Metro Area
R/P	NVTC Smart Card	X			NVTC	VA
U	Maryland Electronic Toll Collection (ETC)		X		MdSHA	MD
Advanced Public Transportation Systems						
O	PRTC OmniLink		X		PRTC	PW/MSS/MPK
O	Montgomery County Ride-On			X	MG Co	MG Co
R/P	Bethesda-Tysons GPS/AVL ITS Demonstration		X		WMATA	MG, FX Co
O	Train Arrival Indicator Lights	X			WMATA	Metro Area
R/P	Dynamic Signing for Transit and Park and Ride/MD			X	MG Co	MG Co
Commercial Vehicle Operations						
U	CVISN	X			FHWA	MD/VA
R/P	Motor Carrier Information Services	X			FHWA	Region
Communications Infrastructure						
U	Baltimore & Washington Surveillance Infrastructure		X		FHWA	MD
R/P	Maryland Telecommunications Requirements		X		MdSHA	MD
R/P	Virginia Wireless Resource Sharing		X		VDOT	VA
Planning						
R/P	Northern Virginia EDP		X		VDOT	NOVA
R/P	I-95 Corridor Coalition	X			FHWA	Metro Area
R/P	Washington, D.C. EDP			X	DCDPW	DC
R/P	Umbrella Study	X			VDOT	Metro Area
U	Montgomery County ATMS Data			X	MG Co	MG Co

Status: O = Operational, U = under development, R/P = Research and Planning

George's County's The Bus is included in the database, allowing passengers to request advice as to the service that best meets their individual needs.

Over the years, information on other transit systems has been added and additional needs have been identified. WMATA budgeted $160,000 in its FY 1998 Capital Improvement Program (CIP) for an upgrade of the existing ARTS system. Planned upgrades to the ARTS database include a transition to a Microsoft Windows platform that can be used on personal computers and potential inclusion of additional transit providers, such as OmniRide and the Virginia Railway Express and MARC commuter rail systems. The improvements are scheduled to be completed in FY 1999, which will allow the database to be accessed through the SmarTraveler system (see above) as well as kiosks throughout the region.

Information Kiosks

The Council of Governments has developed and installed several informational kiosks. Transportation information available through the kiosks includes real time information on traffic congestion and weather, transit routes, maps, alternative commute options, and telework center locations (see Section 10 for kiosk locations).

WMATA is planning to install touch screen information kiosks at nine Metrorail stations, including: National Airport, New Carrolton, Greenbelt, Franconia-Springfield, Huntington, King Street, Union Station, Vienna and either the West Falls Church, Pentagon or Rosslyn station. Information on transit fares, bus routes and schedules, special events, and route planning (using the ARTS database) will all be accessible via the kiosk. Internet connections to other kiosk systems are also planned. Installation of the kiosks is targeted during the 1999 calendar year, and is budgeted at $355,000.

VRE TRIP

VRE has installed Global Positioning System (GPS) equipment on all trains that will communicate with station audio and visual systems to disseminate information to passengers on the platform and via an automated telephone response system. Additional capabilities include customized paging and faxing for customers who ask to be contacted if their train is delayed, and a dynamic system map for the web page that will use train icons to represent the schedule adherence of VRE trains. The projects, referred to as TRIP (Train Information Provider) and Express Link are scheduled to be operational by Fall, 1998. The dynamic system map will also be made available via SmarTraveler so that

passengers can check on the status of their train before leaving the home or office.

PRTC OmniLink

In 1995, PRTC initiated a flex-route bus service designed to combine transit and paratransit services in Prince William County. To maximize the responsiveness of the flex-route service, a Global Positioning System has been installed to track the exact location of each bus. Using satellite signals (GPS) to track bus locations, requests for pick-up can be handled more efficiently when dispatchers can keep track of where each bus is and how well it is keeping schedule. Because this system is a demonstration of one of the most promising new technologies in the transportation field, PRTC has been able to leverage federal, state, and private funds in order to buy the buses and the computer system as well as cover initial operating expenses.

Columbia Pike Traffic Signal Prioritization System

Arlington County and WMATA are working together on a traffic signal coordination project for buses and emergency vehicles traveling along the Columbia Pike corridor. The program will include the purchase and installation of GPS equipment for the specified vehicles and software system that will analyze bus schedules and current vehicle location to gauge schedule adherence. Once the required hardware is installed, bus trips that fall behind schedule may receive extended green times (or shortened red times) at traffic signals to regain schedule adherence and thereby improve on-time performance. Assuming funding ($800,000) is approved by the CTB for FY 1999, the project could be operational in the year 2000.

Electronic Payment

Two contactless electronic payment systems were also recently introduced into the region. Along the Dulles Toll Road and Greenway, the *Smart Tag* system (described in Section 12: HOV and Toll Roads) uses a transponder installed in the vehicle to collect tolls. A dedicated *Smart Tag* only lane has been opened at the main toll gate to allow *Smart Tag* participants the benefit of a more speedy entry and exit by avoiding the cash payment lines.

WMATA's Smart Card demonstration project allowed Metrorail and some Metrobus patrons to pay fares and parking fees with an electronic stored value card. The District of Columbia has installed new smart card compatible parking meters. Opportunities to use electronic fare payment devices are being

expanded throughout the region. Over the longer term, the payment mechanisms should be integrated so that one payment device can be used to pay all transportation fees. For example, one payment mechanism would allow travelers to drive up to New York without stopping to pay a toll, or allow transit users to transfer between different transit systems using one payment media. See Section 9 on Transit Fare Policies for more information on electronic payment.

Bus Stop Information

WMATA will receive a portion of the FY 1999 federal funds earmarked for improving Beltway safety to identify appropriate ITS applications to be incorporated into the planned Tysons-Bethesda express bus service. The Tysons-Bethesda service will serve as a regional demonstration of ITS transit applications. Preliminary plans call for the 10 buses and four vans to be equipped with GPS and AVL equipment which will allow electronic tracking of the bus location, so an estimated next bus arrival time could be displayed at bus stops. If successful, plans for a system-wide upgrade will likely follow. Local bus systems that have or plan to add GPS equipment (CUE, PRTC OmniLink and Montgomery County Ride On) are exploring opportunities to provide real time bus stop information. The Virginia Department of Rail and Public Transit (VDRPT) plans to conduct a study to determine whether similar technology may also be used to enhance the future Dulles Corridor express bus service.

Other Transit Related ITS Projects and Associated Benefits

While many transit related ITS projects are either planned or underway in the Washington metropolitan area, the experiences of other metropolitan areas are also useful in illustrating potential ITS project benefits. It has been suggested that variable message signs be used to convey information on parking availability at park and ride lots to passing motorists. Collision avoidance technology could be installed on buses, trucks and automobiles to reduce accidents, and similar systems have been developed to detect pedestrians. Additional projects exemplifying the benefits of ITS are discussed below.

Increased Passenger Safety

WMATA buses are equipped with a driver activated silent alarm to warn the dispatcher center of problems. The system has reduced average police response time to crime on buses from over 10 minutes to less than two minutes. In Los Angeles, video cameras have been installed where the light-rail transit system crosses surface streets. Video enforcement has been shown to reduce grade crossing violations by 92 percent.

Improving Financial Transactions

Ventura County's smart card system deployed on regional bus systems has reduced data collection costs by $5 million and improved data accuracy. In New York City, the new Metrocard has increased transit ridership and revenue by $49 million, and New Jersey Transit estimates that electronic fare payment has reduced annual cash handling cost by $2.7 million.

Improving On-Time Performance

Using automatic vehicle identification (AVI), Kansas City, Missouri improved on-time performance by 12 percent while Baltimore improved by 23 percent using the same technology. In Portland, Oregon, the deployment of a signal prioritization system reduced travel time by five to eight percent. As mentioned above, Baltimore realized a 13 to 18 percent reduction in travel time on the Route 2 corridor signal preemption project.

Disseminating Information

In Minneapolis-St. Paul, kiosks provide transit route and schedule information as well as roadway incident and construction information. During the study period, it was found that two thirds of those who accessed the system requested bus route or scheduling information. In Boston, a traveler information system similar to the system in the Washington metropolitan area has helped travelers switch from driving to transit, resulting in a 25 percent reduction in volatile organic compounds, 1.5 percent reduction in nitrogen oxides, and a 33 percent reduction in carbon monoxide emissions.

Helps Reduce Environmental Impacts

ITS projects can help improve air quality in a number of ways. According to a report by the Clean Air Action Corporation assessing the impact of three electronic toll collection projects, emissions of carbon monoxide were reduced by 72 percent, hydrocarbons were reduced by 83 percent, and nitrogen oxides by 45 percent. Operational tests in Denver and Boise using infrared roadside emissions sensors and variable message signs at highway exits provide real time vehicle emissions readings to passing motorists. This project was coupled with a telephone information hotline, and educational materials to inform drivers of the fuel savings and air quality benefits of keeping vehicles well tuned.

The potential for ITS technologies to both decrease vehicular congestion and enhance public transit service should continue to be explored. Those parties developing systems and conducting research should cooperate to ensure that

disparate systems are compatible and will ultimately be able to be used by travelers on all modes. Transit operators should actively pursue funding for and participate in ITS deployment projects in order to ensure that transit patrons benefit from new technologies.

Contacts

For more information on ITS initiatives in the Washington Metropolitan area, contact Andrew Meese, MWCOG, (202) 962-3789, or Jim Robinson, VDOT, (804) 786-6677.

CONCLUSION

Conclusion

As the fourteenth in the series of reports, this document serves as a tool for understanding and analyzing transportation issues around the region. By providing both historical background and current information, this report works toward changing the way members of local and state governments and the private sector think about, analyze and solve transportation problems. NVTC is especially proud of the original components included in the report, such as the matrix of comparative transit performance measures, found in Section 11: Quantifying the Benefits and Costs of Public Transit. The organization of this draft allows for fast and effective reference use, which should serve as a valuable resource for persons involved with the transportation industry. Throughout the last year, the matrix of regional studies and projects, found in Section 5: Regional Studies, has been requested by several agencies. As a result, this matrix has not only been used for general information, but also as background in other studies. Finally, the listing of area park and ride lots, which was cross checked against all state and jurisdictional lists, can be considered one of the most comprehensive and accurate listings in the region.

Below is a review of the top regional transportation coordination initiatives which were presented in the introduction. More information on each of these issues can be found in the preceding text. Many of these initiatives were identified as projects leading the way for the region in areas such as new technology and funding sources. Others, such as the Mixing Bowl Congestion Mitigation Plan, have been identified as necessary to prevent traffic in one of the region's busiest corridors from coming to a standstill. All of these initiatives should be considered essential to this region and its future, as well as provide insight on how the transportation industry is progressing.

Top Ten Regional Transportation Coordination Initiatives

1. **I-95/395 HOV 2-3 Study** - Considers reducing occupancy requirements on all or portions of the I-95/395 HOV lanes. Other options include modifying the hours and/or improving access and egress. As the entire length of the HOV facility is included, from D.C. to Rt. 234 in Prince William County, this study could have a direct impact on congestion mitigation efforts planned for the Springfield Interchange during the construction period.

2. **Fare Simplification Study** - Involves the analysis of options for simplifying bus fares within the Metrobus system and throughout the region. The study will also look at fare collection technology as a

mechanism for fare simplification. Recommendations are due in November 1998.

3. **Mixing Bowl Congestion Mitigation Plan** - Major effort of state and local agencies working to alleviate congestion during the 6-8 year reconstruction of the interchanges at I-95/395/495. Efforts being considered include marketing, increased transit service, safety enhancements, and improvements along connected roadways.

4. **Northern Virginia 2020 Transportation Plan** - Update to 1989 Northern Virginia Sub Regional Plan which will identify transportation improvements needed to improve the efficiency of the transportation system. Plan development is focusing on transit and highway improvements for 2010, 2020, and beyond 2020.

5. **NVTC Bus Data Collection** - Involves collection of performance data for Northern Virginia bus operators. The project has two primary objectives: to collect original destination data, and to collect data needed to file national transit database reports for bus service providers not currently reporting. In addition to improved coordination and efficiency, this project will also earn the region a larger share of federal funds.

6. **NVTC Electric Bus Project** - Currently in the process of procuring four hybrid electric buses, which will be used to provide feeder bus service to the East and West Falls Church Metrorail stations and the city of Falls Church and test new technologies that may have widespread applications in Northern Virginia.

7. **Regional Mobility Panel Interjurisdictional Funding Agreement** - The need for this funding agreement developed out of the recently completed work of the Regional Mobility Panel. Specifically, discussions have focused on ensuring long-term reliable funding for WMATA's replacement and rehabilitation plan. The renegotiating of the Metrobus subsidy allocation was addressed in phase one of the Mobility Panel Study.

8. **Regional Electronic Payment Initiatives** - Includes projects in the region which improve the convenience of commuting for area transit passengers through electronic payment media. WMATA's SmarTrip project is scheduled to be open to the public in early 1999, and is likely to be expanded to include other service providers such as VRE.

9. **TPB Study of New Regional Transportation Revenue Sources** - Study initiated by the MWCOG Transportation Planning Board (TPB)

to address the significant funding shortfall in the Constrained Long Range Plan (CLRP). Information is being collected on other jurisdictions experiences throughout the country with introducing new transportation revenue sources. Once complete, the study will make suggestions for possible approaches to be used in the Washington Region.

10. **Tysons to Montgomery County Shuttle** - Provides weekday-fixed route express bus service, to be operated by WMATA, between Bethesda and Tysons Corner via the Capital Beltway. This service is one of the first bus routes planned to serve suburb to suburb travel patterns, particularly between two states. Communications technology will be used to track and display next bus arrival time information at bus stops.

Collectively, it is initiatives such as those listed above which will shape the region's future. While some focus on immediate congestion relief for commuters, others will pave new paths for the region in the future. This region has some of the worst congestion in the country, resulting in many opportunities to make improvements. Throughout this report, NVTC has identified issues that are important to the region and the transportation industry and offered solutions and resources to stimulate further problem solving.

The commission would appreciate your feedback on this report and ways in which the document could be more helpful in the future. Please contact Jennifer Straub or Heather Wallenstrom at (703) 524-3322.

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APPENDIX: TRANSPORTATION AGENCIES AND ORGANIZATIONS

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City of Alexandria

City Hall
301 King Street
Alexandria, Virginia 22314

Alexandria Department of Transportation & Environmental Services

Thomas F. O'Kane, Jr., Director
David Ruller, Deputy Director/Administration
City Hall, Room 4100

Telephone: 703/838-4966
Fax: 703/838-6438

Function: Planning, construction and maintenance of streets, sidewalks, HOV-facilities, and bridges. Manages traffic control systems and provides public works programs management.

Alexandria Office of Transit Services and Programs

Betsy Massie, Division Chief
City Hall, Room 5100

Telephone: 703/838-3800
Fax: 703/739-9415

Function: Overseeing operation, planning, and marketing of commuter services, including transit, ridesharing, paratransit, and transportation demand management programs. Planning, construction, and maintenance of transit facilities.

Alexandria Rideshare

vacant, Ridesharing Coordinator
City Hall, Room 5100

Telephone: 703/838-3800
Fax: 703/739-9415

Alexandria Planning Commission

W.B. Hurd, Chairman
c/o Sheldon Lynn
Alexandria Department of Planning & Zoning
City Hall, Room 2100

Telephone: 703/838-4666
Fax: 703/838-6393

Alexandria Traffic and Parking Board

C. Peter Schumaier, Chairman
c/o George Jivatode
Alexandria Department of Transportation & Environmental Services
City Hall, Room 4100

Telephone: 703/838-4411
Fax: 703/838-6438

Alexandria Transit Company – See DASH

American Association of State Highway and Transportation Officials (AASHTO)

Frank Francois, Executive Director
444 N. Capitol Street, N. W., Suite 249
Washington, D.C. 20001

Telephone: 202/624-5800
Fax: 202/624-5806

Functions: Trade association for state departments of transportation. Very active in lobbying Congress. Also collects some data from its members.

American Automobile Association (AAA)

Ron Kosh, General Manager
12600 Fair Lakes Circle
Fairfax, Virginia 22033-4904

Telephone: 703/222-5655
Fax: 703/222-4049

Function: Advocacy group for automobile owners.

American Public Transit Association (APTA)

William Millar, President
1201 New York Avenue, N.W.
Washington, D.C. 20005

Telephone: 202/898-4000
Fax: 202/898-4070

Function: National trade association for public transit operators and suppliers. Several active committees evaluate proposed regulations and advocate legislative positions, including legislative and policy committees as well as modal committees such as commuter rail.

Amtrak -- See National Railroad Passenger Corporation

Arlington County

Arlington County Commuter Assistance Program (CAP)

Christopher Hamilton, CAP Manager
2100 Clarendon Blvd., Suite 706
Arlington, Virginia 22201

Telephone: 703/228-3525 or 703/228-3725
Fax: 703/228-3594
E-mail: commute@co.arlington.va.us

Function: Coordinate commuter assistance, marketing and TDM within Arlington County including The Commuter Stores, and Employer Services and Outreach Program, The Commuter Page internet site (www.CommuterPage.com), and Transit Ridership Development marketing of Metrobus in Arlington.

Arlington County Department of Public Works

Sam Kem, Director
Ken Hook, Deputy Director
Mark Kellogg, Chief, Planning Division
James R. Hamre, Transit Program Coordinator
2100 Clarendon Blvd., Suite 717
Arlington, Virginia 22201-5445

Telephone: 703/228-3711
Fax: 703/228-3594

Function: Planning, construction and maintenance of streets, bridge, transit and HOV-facilities. Coordination and marketing of ridesharing commuter stores, and other commuter services.

Arlington Transportation Commission

Robert Swennes, Chairman
c/o Mark Kellogg
Arlington Department of Public Works
2100 Clarendon Blvd.
Arlington, Virginia 22201

Telephone: 703/228-3681

Arlington Trolley in Crystal City

Eric A. Smith, Paratransit/Operations Planner
2100 Clarendon Blvd., Suite 706
Arlington, Virginia 22201

Telephone: 703/228-3575
Fax: 703/228-3594

Function: Serves Crystal City with connections to Metrorail.

Commonwealth Transportation Board (CTB)

The Honorable Shirley J. Ybarra, Chairman
1401 East Broad Street
Richmond, Virginia 23219

Telephone: 804/786-6670
Fax: 804/786-6683

Function: Policy Board for VDOT. Chaired by Secretary of Transportation. Adopts six-year program for highway and transit projects.

The Commuter Stores

Three Locations: Ballston Common Mall
Crystal City Underground Mall
Rosslyn Center, Mall Level 2

Main address and contact information:

Laura Maddox, Manager
1615-B Crystal Square Arcade
Arlington, Virginia 22202

Telephone: 703/413-4287
Fax: 703/413-4291
E-mail: comstorecc@aol.com

Function: Commuter information, services and fare media sales for all area transit and TDM programs. Operated by a private contractor through the Arlington County Commuter Assistance Program.

CUE Bus (City of Fairfax)

Paul Briggs, Transit Superintendent
10455 Armstrong Street
Fairfax, Virginia 22030

Telephone: 703/385-7827

Function: Provides local transit service with connections to Metrorail.

DASH (Alexandria Transit Company)

William B. Hurd, Chairman
Sandy Modell, General Manager
116 S. Quaker Lane
Alexandria, Virginia 22304

Telephone: 703/370-3274
Fax: 703/370-3404

Function: Non-profit corporation managing operations of local bus service contracted to the ATE Management and Service Company.

District of Columbia Department of Public Works

Cell Bernardino, Director
2000 14th Street, N.W.
Washington, D.C. 20009

Telephone: 202/939-8000
Fax: 202/939-8191

Function: Advises WMATA Board members and cooperates in transportation projects such as VRE's L'Enfant station.

Dulles Area Transportation Association (DATA)

Tanya Matthews, President
Myron Smith, Jr., Executive Director
14501-A Lee Jackson Hwy.
Chantilly, VA 20151

Telephone: 703/817-1307
Fax: 703/817-1407
E-mail: info@data-trans.org

Function: Dedicated to improving mobility in the Dulles Airport/Route 28 employment center (Fairfax, Loudoun, Prince William County). Members include employers, property owners, local governments and other groups.

Dulles Corridor Rail Association

Patricia Nicoson, Executive Director
P.O. Box 212
Dulles, Virginia 20167

Telephone: 703/318-7200
Fax: 703/904-9508

Function: Non-profit organization with membership of individuals, organizations and businesses whose mission is to advocate rail transportation in the Dulles Corridor to the general public, executive branch officials, public policy makers at all levels of government, and elected and appointed officials. Assists decisionmakers in developing feasible funding plans, organizational arrangements and implementation programs.

Environmental Protection Agency (EPA)

The Honorable Carol M. Browner, Administrator
401 M. Street, S.W., Room 1200, WT/1101
Washington, D.C. 20460

Telephone: 202/260-4700
Fax: 202/260-0279

W. Michael McCabe
Regional Administrator, Region III
841 Chestnut Street
Philadelphia, PA 19107

Telephone: 215/566-5000
Fax: 215/566-2901

Function: Responsible for mandates of the Clean Air Act and establishing regulations to provide state and local compliance.

City of Fairfax

10455 Armstrong Street
Fairfax, Virginia 22030-3630

David Hudson, Director, Community Development and Planning
Telephone: 703/385-7932

John Veneziano, Director, Department of Public Works
Telephone: 703/385-7920

Alex Verzosa, Transportation Director
Telephone: 703/385-7889

Paul Briggs, Transit Superintendent
Telephone: 703/385-7827
Telephone: 703/385-7859 (Information for CUE Bus)

Function: City government responsible for planning, construction and maintenance of street, bridge, transit and HOV-facilities, and operation of the CUE Bus System.

Fairfax County

Fairfax Connector Bus (including Reston RIBS and Tysons Shuttle)

Andy Szakos, Office of Transportation
12055 Government Center Parkway, Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1172
Bus Information: 703/339-7200

Function: County-owned public bus system.

Fairfax County Department of Transportation

Shiva K. Pant, Director
Andy Szakos, Chief, Transit Operations Division
12055 Government Center Parkway, Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1100
Fax: 703/324-1450

Function: County agency responsible for planning and coordinating roads, bridges, HOV-facilities and public transit.

Fairfax County Ridesources

Dorothy Cousineau, Section Chief-Rideshare & Marketing
12055 Government Center Parkway, Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1109 (Business)
703/324-1111 (Rideshare)

Fairfax County Transportation Advisory Commission

Lester Schoene, Chairman
c/o Dan Southworth, Transportation Planner II
Fairfax County Office of Transportation
12055 Government Center Parkway, Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1100
Fax: 703/324-1450

Function: Members are appointed by the County Board of Supervisors, with one member from each magisterial district. TAC responds to Board requests for advice.

City of Falls Church

Halsey Green, Financing Division Director
300 Park Avenue
Falls Church, Virginia 22046

Telephone: 703/248-5092
Fax: 703/248-5146

Function: City government responsible for planning, construction and maintenance of streets and finance, including transit.

City of Falls Church Planning Division

Citizens Advisory Committee on Transportation
Andrea Giberson, Chairman
c/o Falls Church Planning Division
300 Park Avenue
Falls Church, Virginia 22046

Telephone: 703/248-5040
Fax: 703/248-5184

Federal City Council

The Honorable Robert Dole, President
Ken Sparks, Executive Director
1155 15th Street, N. W., Suite 301
Washington, DC 20005

Telephone: 202/223-4560
Fax: 202/659-8621

Function: Undertakes studies of regional issues.

Federal Highway Administration (FHA)

The Honorable Kenneth R. Wykle, Administrator
400 7th Street, S.W.
Washington, D.C. 20590

Telephone: 202/366-0650
Fax: 202/366-3244

Functions: Administer grants to support flexible investments in surface transportation.

Federal Railroad Administration (FRA)

The Honorable Jolene Molitoris, Administrator
400 7th Street, S.W., Mail Stop #5
Washington, D.C. 20590

Telephone: 202/493-6014
Fax: 202/493-6009

Function: Provide grants, primarily for safety purposes, and regulate safety of railroads. Administer major grant programs to develop new technology, such as magnetic levitation.

Federal Transit Administration (FTA)

The Honorable Gordon Linton, Administrator
400 7th Street, S.W.
Washington, D.C. 20590

Telephone: 202/366-4040
Fax: 202/493-2470

Sheldon Kinbar, Regional Administrator
FTA Region III
1760 Market Street, #500
Philadelphia, PA 19103

Telephone: 215/656-7100
Fax: 215/656-7260

Function: Administer grants to support public transit capital investments operations and research.

Fredericksburg Area Metropolitan Planning Organization (FAMPO)

William Jones, Chairman
Stephen H. Manster, Administrator
512 Lafayette Blvd.
Fredericksburg, VA 22401

Telephone: 540/373-2890
Fax: 540/899-4808

Function: Serves as a Planning Organization. FAMPO is comprised of three voting jurisdictions: Fredericksburg, Stafford County and Spotsylvania County and two non-voting members: Caroline and King George's Counties. RADCO provides staffing for FAMPO.

General Services Administration

David J. Barram, Administrator
18th & F Streets, N.W
Washington, D.C. 20405

Telephone: 202/501-0800
Fax: 202/219-1243

Function: Helps determine parking and transportation arrangements for federal agencies. Would be involved in a coordinated regional strategy to boost public transit and ridesharing use among federal employees.

George Mason University (GMU)

4400 University Drive
Fairfax, Virginia 22030-4444

Alan Mertin, President
Telephone: 703/993-1000
Fax: 703/993-8707

Dr. Roger Stough, Northern Virginia Chair in Local Government
Institute of Public Policy
Telephone: 703/993-2280
Fax: 703/993-2284

Ellie Doyle, Director, Transportation and Land Use Policy
Telephone: 703/993-3351

Function: State-supported university located in Fairfax County/City of Fairfax. Has active transportation education and research programs. Emphasis is on Intelligent Vehicle Highway Systems and traveler information systems. Recipient of several federal transportation research grants and active supporters of private-sector involvement.

Greater Washington Board of Trade

John Tydings, President
1129 20th Street, N.W., Suite 200
Washington, D.C. 20036-3494

Telephone: 202/857-5900
Fax: 202/223-2648

Function: Advocates improvements for the regional economy.

Loudoun County

Sanjeev Malhotra, Chief of Transportation Planning
Julie Pastor, Director, Department of Planning
1 Harrison Street, Leesburg, Virginia 22075
P.O. Box 7000, Leesburg, VA 20177

Telephone: 703/777-0246
Fax: 703/777-0441

Function: County agencies responsible for planning and coordinating roads, bridges, HOV-facilities and public transit.

Loudoun County Commuter Service

Sanjeev Malhotra, Chief of Transportation Planning
1 Harrison Street, Leesburg, Virginia 22075
P.O. Box 7000, Leesburg, VA 20177

Telephone: 703/777-0246
Fax: 703/777-0441

Function: County owned commuter bus service.

Loudoun County Rideshare

(vacant)
Ridesharing Coordinator
1 Harrison Street, Leesburg, VA 22075

Telephone: Metro: 703/478-8433
Local: 703/771-5665

Loudoun County Transportation Association (LCTA)

Mark McGregor, Executive Director
P.O. Box 2833
Leesburg, Virginia 20177

Telephone: 703/777-2708
Fax: 703/777-2552

Function: Improve mobility.

MARC

Kathy Waters, Director
P.O. Box 8718
BWI Airport, Maryland 21240-8718

Telephone: 410/468-4800 or 888/218-2267

Function: Operator of MARC commuter rail service. Part of Maryland Mass Transit Administration.

Maryland Department of Transportation (MDOT)

The Honorable David L. Winstead
Maryland Secretary of Transportation
P.O. Box 8755
BWI Airport, Maryland 21240-0755

Telephone: 410/865-1000
Fax: 410/865-1334

Carmina Perez-Fowler, Manager of Washington Area Transit Programs
8720 Georgia Avenue, Suite 904
Silver Spring, Maryland 20910-3602

Telephone: 410/792-0273
Fax: 410/565-0241

Ronald L. Freeland, Administrator
Mass Transportation Administration
6 St. Paul Street
Baltimore, MD 21202-3415

Telephone: 410/767-3943
Fax: 410/333-3279

Function: Provides Maryland jurisdictions' WMATA funding.

Maryland-National Park and Planning Commission

The Honorable Elizabeth Hewlett, Chairman
County Administration Building
14741 Governor Oden Bowie Drive
Upper Marlboro, MD 20772

Telephone: 301/952-3560
Fax: 301/952-5074

Trudye Morgan Johnson, Executive Director
6611 Kenilworth Avenue
Riverdale, Maryland 20737

Telephone: 301/454-1747
Fax: 301/454-1750

Function: Joint agency for Montgomery and Prince George's County that plans and analyzes transportation improvements.

Metropolitan Development Policy Committee

The Honorable Sharon Ambrose, Chairman
777 North Capital Street, N.E., Suite 300
Washington, D.C. 20002-4201

Telephone: 202/962-3200
Fax: 202/962-3204

Function: Advises the MWCOG Board of Directors on all planning, land use, forecasting, and economic development issues, and seeks to promote the effective coordination of regional land use, transportation and environmental policies.

Metropolitan Washington Air Quality Committee

The Honorable James G. Burton, Chairman
777 North Capital Street, Suite 300, N.E.
Washington, D.C. 20002-4201

Staff Contact: Joan Rohlfs, Assistant Director of the Department of Environmental Programs

Telephone: 202/962-3358

Function: Consists of elected officials from localities, states, and the District of Columbia. Develops recommendations for a regional air quality attainment strategy for the Washington area; these recommendations become part of the State Implementation Plan, which is submitted to the Environmental Protection Agency.

Metropolitan Washington Airports Authority (MWAA)

James A. Wilding, President & CEO
44 Canal Center Plaza
Alexandria, Virginia 22314

Telephone: 703/417-8610
Fax: 703/417-8949

Washington Flyer: 703/685-1400
703/661-2700

Function: Regional agency operating Ronald Reagan National and Washington Dulles International Airports. Also offers Washington Flyer bus, van and taxi system serving both airports.

Metropolitan Washington Council of Governments (MWCOG)

The Honorable Charlene Drew Jarvis, Chairman
Michael C. Rogers, Executive Director
777 North Capitol St., Suite 300
Washington, D.C. 20002-4201

Telephone: 202/962-3200
Fax: 202/962-3201

Function: In 1966, MWCOG was officially recognized by the federal government as the agency responsible for comprehensive regional planning and agreed with the TPB to use the latter as its Transportation Policy Committee.

Metropolitan Washington Council of Governments Commuter Connections

Nicolas Ramfos, Chief, Alternative Commute Programs
777 N. Capitol St., N.E., Suite 300
Washington, D.C. 20002-4201

Telephone: 202/962-3200
Fax: 202/962-3202
E-mail: nramfos@mwcog.org

National Capital Planning Commission

Reginald W. Griffith, Executive Director
801 Pennsylvania Avenue, N.W., Suite 301
Washington, D.C. 20576-2604

Telephone: 202/482-7211
Fax: 202/482-7272

Function: Must approve federal construction projects in the District of Columbia, and consider transportation implications.

National Capital Region Transportation Planning Board (TPB)

The Honorable Kathleen K. Seefeldt, Chairman
Ron Kirby, Transportation Planning Director
777 North Capital Street, Suite 300, N.E.
Washington, D.C. 20002-4201

Telephone: 202/962-3200

Function: Serves as Metropolitan Planning Organization and provides extensive database and modeling capability for population, employment and transportation studies. TPB now includes representatives of 18 cities and counties, plus three state transportation agencies, MWAA, WMATA, and five federal agencies. A weighted voting procedure is employed. MWCOG staff operate the Ride Finders network, which provides a centralized carpool and vanpool matching database.

National Park Service

Robert Stanton, Director
1849 C Street, N.W.
Washington, D.C. 20240

Telephone: 202/208-4621
Fax: 202/208-7889

Function: Controls access to certain federal lands, including the George Washington Parkway. Permits are required when encroaching on Park Service land, such as at VRE's L'Enfant station.

National Railroad Passenger Corporation (Amtrak)

Wade Hall, General Manager of Washington Commuter Services
900 Second Street, N.E., Suite 111
Washington, D,C, 20002

Telephone: 202/906-2619
Fax: 202/906-3569

Function: Contract operator for VRE commuter rail service.

Northern Virginia Planning District Commission (NVPDC)

The Honorable Christopher Brown, Chairman
G. Mark Gibb, Executive Director
7535 Little River Turnpike, Suite 100
Annandale, Virginia 22003

Telephone: 703/642-0700
Fax: 703/642-5077

Function: State planning review agency. Conducting land use study of the Virginia Railway Express (VRE).

Northern Virginia Transportation Alliance

Gary Garczynski, President
Ed DeBolt, Director
P.O. Box 6149
McLean, Virginia 22106-6149

Telephone: 703/883-1355
Fax: 703/883-1850

Function: This non-partisan interest group lobbies for completion of transportation facilities in Northern Virginia and coordinated land use policies. For example, the group strongly supports completion of a western bypass.

Northern Virginia Transportation Commission (NVTC)

The Honorable Albert C. Eisenberg, Chairman
Richard K. Taube, NVTC Executive Director
4350 N. Fairfax Drive, Suite 720
Arlington, Virginia 22203

Telephone: 703/524-3322
Fax: 703/524-1756
E-mail: nvtc@nvtdc.org

Function: Created by the General Assembly in 1964, currently has 19 members from six jurisdictions. Members are elected officials from local jurisdictions and the General Assembly, with a designee of the Commissioner of VDOT. Concentrates on finance, and allocates up to $100 million annually of state/federal funds to assist public transit. Co-sponsor of the Virginia Railway Express. NVTC commissioners are also members of the Transportation Coordinating Council. Four NVTC members are appointed by the Commission to the WMATA Board of Directors. Levies a two percent motor fuels tax generating $12 million annually; the funds are used primarily for Metro operating costs and debt service.

Potomac and Rappahannock Transportation Commission (PRTC)

The Honorable William R. Wren, Chairman
Stephen MacIsaac, Acting Executive Director
14700 Potomac Mills Road
Woodbridge, Virginia 22192

Telephone: 703/583-PRTC(7782)
Fax: 703/583-1377

Function: Created in 1986 under authority of Section 15.1-1342 of the Code of Virginia: (Transportation District Act). Current members include Prince William and Stafford Counties, and the cities of Fredericksburg, Manassas and Manassas Park. Operates the OmniRIde/OmniLink commuter bus system, a ridesharing program, and is a co-sponsor of VRE commuter rail service. Commissioners are appointed from each jurisdiction and the General Assembly including six principals and six alternates from Prince William County. Total commissioners are 15, with 14 alternates. The two percent motor fuels tax levied within PRTC yields almost $5 million annually.

PRTC OmniMatch

Lauretta Ruest, Project Director
14700 Potomac Mills Road
Woodbridge, Virginia 22192

Telephone: 703/583-PRTC (7782)

Function: Administer local ridesharing services and marketing in cooperation with MWCOG's regional network, known as the Ride Finders Network.

PRTC OmniRide/OmniLink

Stephen A. MacIsaac, Acting Executive Director
Potomac & Rappahannock Transportation Commission
14700 Potomac Mills Road
Woodbridge, Virginia 22192

Telephone: 703/730-OMNI (6664)
Fax: 703/583-1377

Function: Provides commuter bus service to core locations with connections to Metrorail and feeder bus service to some VRE stations within Prince William County, Manassas and Manassas Park.

Rappahannock Area Development Commission (RADCO)

Joseph Grzeika, Chairman
Stephen H. Manster, Executive Director
512 Lafayette Blvd.
Fredericksburg, VA 22401

Telephone: 540/373-2890
Fax: 540/899-4808

Function: Planning agency for five localities: City of Fredericksburg, Stafford County, Spotsylvania County, Caroline County and King George's County. Provides staffing for Fredericksburg Area Metropolitan Planning Organization (FAMPO).

Reston Transportation Management Association (LINK)

Karl J. Ingebritson, Director
1760 Reston Parkway, Suite 513
Reston, Virginia 20190

Telephone: 703/318-9663 or 435-LINK
Fax: 703/318-0817

Function: Improving mobility in the Reston Area.

Smart Tag

Tom Sines, Vice President, Customer Service Center
11301 Sunset Hills Road, Suite #A3
Reston, Virginia 22090

Telephone: 703/708-9342 or 1-888/327-8655
Fax: 703/736-3472

Function: Maintains electronic collection of tolls on the Dulles Greenway and Toll Road.

State Corporation Commission (Virginia)

The Honorable Clinton Miller, Commissioner
The Honorable Theo V. Morrison, Jr., Commissioner
The Honorable Hullihen William Moore, Commissioner
1300 East Main Street, 11th floor
Richmond, Virginia 23219

Telephone: 804/371-9608
Fax: 804/371-9376

Function: Provides authority to operate and regulates fares for certain privately owned transportation services (e.g. intercity bus service) within the Commonwealth. Must approve tolls to be charged by the Virginia Toll Road Corporation for its Dulles Toll Road Extension to Leesburg. Does not regulate government-owned bus systems nor private carriers operating within the Washington Metropolitan Area Transit Zone.

Transportation Coordinating Council (TCC)

J. Kenneth Klinge, Chairman
c/o Northern Virginia District Office
VDOT
3975 Fair Ridge Drive
Fairfax, Virginia 22033

Telephone: 703/383-2233

Function: The TCC was created by Governor Wilder in 1991 based on earlier plans by NVTC Chairman John Milliken. Member jurisdictions adopted resolutions to participate. The Council consists of three parts: 1) A policy group with 37 elected officials (plus alternates) from NVTC, PRTC and selected towns. This group is chaired by the Northern Virginia member of the Commonwealth Transportation Board. The director of Virginia Department of Rail and Public Transportation, VDOT's Northern Virginian District administrator and the chair of the Citizens Advisory Committee are ex-officio members of the TCC. 2) A TCC Technical Committee with staff representatives of local and regional jurisdictions, chaired by the Northern Virginia District Administrator of VDOT. 3) A TCC Citizens Committee chaired by an appointee (currently Douglas Ham) of the Secretary of Transportation.

Transportation Research Board/National Research Council

Robert E. Skinner, Jr., Executive Director
2101 Constitution Avenue
Washington, D.C. 20418

Telephone: 202/334-2933
Fax: 202/334-2003

Function: Sponsors cooperative research programs for surface transportation, and often is directed by Congress to manage special transportation studies.

Toll Road Corporation of Virginia

Michael Crane, CEO
45240 Business Court, Suite 100
Sterling, VA 20166

Telephone: 703/707-8870
Fax: 703/707-8876

Function: This private organization worked for several years to design, finance and construct an extension of the Dulles Toll Road to Leesburg. The Corporation has operated the road since its 1995 opening.

Tysons Transportation Association (TYTRAN)

William J. Menda, Chairman and President
P.O. Box 3264
Tysons Corner, Virginia 22103

Telephone: 703/714-3406
Fax: 703/714-4854

Staff Contact: Kathleen A. Jackson, Director of Transportation
Telephone: 703/799-5394

Function: Actively works to improve mobility.

U.S. Army Corps of Engineers

Lt. Gen. Joe N. Ballard, Chief of Engineers
20 Massachusetts Avenue, N.W.
Washington, DC 20314-1000

Telephone: 202/761-0001
Fax: 202/761-1683

Function: Must award permits to approve surface transportation construction affecting wetlands (e.g. at WMATA's Franconia/Springfield Station).

U.S. Congress

Senators of Virginia:

The Honorable John Warner (R)
The Honorable Charles Robb (D)

U.S. Senate
Washington, D.C. 20510
Telephone: 202/224-3121 (U.S. Capitol Switchboard)

Senate Committees:

Senate Appropriations Committee
Telephone: 202/224-3471

Transportation Subcommittee
Telephone: 202/224-7281

Senate Banking, Housing and Urban Affairs Committee
Telephone: 202/224-7391

Senate Commerce, Science and Transportation Committee
Telephone: 202/224-5115

Surface Transportation Subcommittee
Telephone: 202/224-4852

Senate Environment and Public Works Committee
Telephone: 202/224-6176

Transportation and Infrastructure Subcommittee
Telephone: 202/224-6176

Representatives of Virginia:

District 1 -	The Honorable Herbert Bateman	(R)
District 2 -	The Honorable Owen Pickett	(D)
District 3 -	The Honorable Robert C. Scott	(D)
District 4 -	The Honorable Norman Sisisky	(D)
District 5 -	The Honorable Virgil H. Goode, Jr.	(D)
District 6 -	The Honorable Robert W. Goodlatte	(R)
District 7 -	The Honorable Thomas Bliley	(R)
District 8 -	The Honorable James Moran	(D)
District 9 -	The Honorable Rick Boucher	(D)
District 10 -	The Honorable Frank Wolf	(R)
District 11 -	The Honorable Thomas Davis	(R)

U.S. House of Representatives
Washington, D.C. 20515

Telephone: 202/224-3121 (U.S. Capitol Switchboard)

House Committees:

House Appropriations Committee
Telephone: 202/225-2771

Transportation Subcommittee
Telephone: 202/225-2141

House Commerce Committee
Telephone: 202/225-2927

House Transportation and Infrastructure Committee
Telephone: 202/225-9446

Surface Transportation Subcommittee
Telephone: 202/225-6715

Legislation:

Senate and House Bill Status
Telephone: 202/225-1772

U.S. Department of Transportation (USDOT)

The Honorable Rodney E. Slater, Secretary of Transportation
400 7th Street, S.W., Suite 10200
Washington, D.C. 20590

Telephone: 202/366-1111
Fax: 202/366-7202

Function: Set policy and coordinate activities of the modal administrations.

Van Pool Services, Inc. (VPSI)

Ken Jarocki, Manager
2760 Eisenhower Avenue, #306
Alexandria, Virginia 22314

Telephone: 800/826-7433
Fax: 703/329-4012

Function: Provides van pool services to the Washington, D.C. region and nation-wide.

Virginia Association of Counties (VACO)

James D. Campbell, Executive Director
1001 E. Broad Street, Suite LL20
Richmond, Virginia 23219

Telephone: 804/788-6652
Fax: 804/788-0083

D.C. Office:
Telephone: 202/393-6226

Function: Advocacy group for Virginia's county governments. Each year adopts legislative agenda, including transportation components.

Virginia Department of Rail and Public Transportation (VDRPT)

Mr. Leo J. Bevon, Director
1401 East Broad Street
Richmond, Virginia 23219

Telephone: 804/786-1051
Fax: 804/786-7286

Function: Rail, public transportation, and TDM program planning, implementation, advocacy, and financial assistance. Policy and technical advice and assistance to localities and to transit operators. Policy and technical advice to the executive and legislative branches of Virginia state government.

Virginia Department of Transportation (VDOT)

David Gehr, Commissioner
1401 East Broad Street
Richmond, Virginia 23219

Telephone: 804/786-2701
Fax: 804/786-2940

Claude D. Garver, Assistant Commissioner for Operations
Telephone: 804/786-2711
Fax: 804/786-6250

Jim Atwell, Assistant Commissioner for Finance
Telephone: 804/786-5128
Fax: 804/786-2940

Function: State agency responsible for planning, constructing and maintaining surface transportation improvements.

Northern Virginia VDOT District Office

Tom Farley, District Administrator
3975 Fair Ridge Drive
Fairfax, Virginia 22033

Telephone: 703/383-2000
Fax: 703/383-2470

Joan Morris, Director of Public Affairs
Telephone: 703/383-2465

Dulles Toll Road Operations Center
Telephone: 703/383-2696

Function: The Northern Virginia office manages construction and maintenance of highways in the district and controls ramp meters and other facilities.

Virginia Division of Risk Management

Don LeMond, Director
James Monroe Building - 6th Floor
101 North 14th Street
Richmond, Virginia 23219

Telephone: 804/225-4619
Fax: 804/371-8400

Function: Risk manager for the Virginia Railway Express. On behalf of NVTC/PRTC, manages VRE's insurance program which provides $200 million of protection and incorporates $20 million of cash reserves.

Virginia General Assembly

Function: Sessions are held for two or three months each year beginning in January, but committee hearings occur all year. Created NVTC in 1964. Designates NVTC's members from the General Assembly and the number of members from each jurisdiction. Specifies the method of sharing NVTC's administrative costs and allocating the majority of NVTC's state aid.

In a special session in 1986, created a new Transportation Trust Fund with public transit to receive 8.4 percent allocated according to a statutory formula. Public transit funding was doubled.

The Honorable Richard Saslaw, Democratic Leader
Virginia Senate
P.O. Box 1856
Springfield, Virginia 22151

The Honorable Walter Stosch, Republican Leader
Virginia Senate
P.O. Box 8726
Richmond, Virginia 23236

Susan Clark Schaar, Clerk
Senate
P.O. Box 396
Richmond, Virginia 23219-0396

Telephone: 804/698-7400
Fax: 804/698-7676

The Honorable Thomas W. Moss, Jr., Speaker of the House of Delegates
Delegate for the 79th District
P.O. Box 6190
Portsmouth, Virginia 23705

The Honorable Richard Cranwell, Democratic Floor Leader
Delegate for the 14th District
P.O. Box 459
Vinton, Virginia 24179

The Honorable Vance Wilkins, Republican Floor Leader
Delegate for the 24th District
P.O. Box 469
Amherst, Virginia 24521

Bruce F. Jamerson, Clerk
House of Delegates
P.O. Box 406
Richmond, Virginia 23203-0406

Telephone: 804/698-1619
Fax: 804/698-1800

Virginia Municipal League (VML)

R. Michael Amyx, Executive Director
P.O. Box 12164 (13 East Franklin Street, 23219)
Richmond, Virginia 23241

Telephone: 804/649-8471
Fax: 804/343-3758

Function: Advocacy group for Virginia's cities and towns. Pursues an annual legislative agenda.

Virginia Office of the Governor

The Honorable James S. Gilmore, III, Governor
Commonwealth of Virginia
P.O. Box 1475
Richmond, Virginia 23219-1475

Telephone: 804/786-2211

Function: Proposes financing measures for transportation; appoints Secretary of Transportation and members of various boards and commissions.

Virginia Office of the Secretary of Transportation

The Honorable Shirley J. Ybarra, Secretary
Commonwealth of Virginia
1401 East Broad Street, Room 414
Richmond, Virginia 23219

The Honorable Charles L. Waddell, Deputy Secretary
Chip Nottingham, Assistant Secretary

Telephone: 804/786-6670
Fax: 804/786-6683

Function: Oversees the Virginia Departments of Transportation and Rail and Public Transportation, serving as chairman of the Commonwealth Transportation Board.

Virginia Railway Express (VRE)

The Honorable Robert Gibbons, Chairman of Operations Board
Stephen T. Roberts, Director of Operations
1500 King Street, Suite 202
Alexandria, Virginia 222314-2730

Telephone: 703/684-1001
Fax: 703/684-1331
E-mail: steve@vre.org

Function: Joint operating board created by NVTC and PRTC to manage operations.

Virginia Transit Association (VTA -- formerly called VAPTO)

Linda McMinimy, Executive Director
Meredith Richards, Executive Committee President
1108 E. Main Street, #904
Richmond, Virginia 23219

Telephone: 804/643-1166
Fax: 804/643-1155

Function: Trade group for Virginia's public transit operators and associated suppliers. Primarily focused on state legislation.

Virginia VanPool Association, Inc.

Dick Boyd
P.O. Box 1016
Woodbridge, Virginia 22193

Telephone: 202/310-2700

Function: Advocacy group for vanpools.

Washington Area Bicyclist Association (WABA)

Ellen Jones, Director
1511 K Street, N.W., #1015
Washington, D.C. 20006

Telephone: 202/628-2500
Fax: 202/628-4141
E-mail: waba@waba.org website: www.waba.org

Function: Promote bicycling.

Washington Metropolitan Area Transit Authority (WMATA)

The Honorable Cleatus Barnett, Chairman
Richard A. White, General Manager
600 Fifth Street, N.W.
Washington, D.C. 20001

Telephone: 202/637-1234

Metro Bus/Rail Information: 202/637-7000
Metro On-Call Lift-Equipped Buses: 202/962-1825
Elderly Disabled Assistance I/D Cards: 202/962-1245

Function: Operates the Metrorail and Metrobus systems within a service territory established by an interstate compact.

Washington Metropolitan Area Transit Commission

The Honorable Agnes M. Alexander, Chair
The Honorable Claude Ligon, Vice Chairman
Judge Clinton Miller, Commissioner
William H. McGilvery III, Executive Director
1828 L. Street, N.W., Suite 703
Washington, D.C. 20036-5104

Telephone: 202/331-1671
Fax: 202/653-2179

Function: Regulates for-hire transportation between points in the District (or for routes outside zone if operated under federal authority with a majority of passengers in the District), including taxicabs operating between jurisdictions. The Commission does not regulate water, air or rail transit; federal, state, local or WMATA transportation; school transit; or transit solely within Virginia.

Washington Private Operators Council

Kenneth W. Butler, Executive Director
11350 Random Hills Road, Suite 800
Fairfax, VA 22030

Telephone: 703/620-4914
Fax: 703/620-4709

Function: Educates the public and elected officials about the benefits of contracted public transit services.

Washington Suburban Transit Commission

Edward A. Daniel, Chairman
8720 Georgia Avenue, Suite 904
Silver Spring, Maryland 20910-3602

Staff Contact: Louis Farber

Telephone: 301/565-9665
Fax: 301/565-0241

Function: Provides a forum for Maryland's members of the WMATA Board of Directors.