Northern Virginia Transportation Commission

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FIFTH ANNUAL
TRANSIT SERVICE COORDINATION PLAN

--September 1989--

ABSTRACT

This fifth annual report on the transit service coordination planning activities of the Northern Virginia Transportation Commission (NVTC) has two principal components. Following an introduction, the report addresses current and future coordination efforts organized into several categories, including planning, financing, marketing and institutional changes. The second major part of the report describes the diverse transit and ridesharing services provided by regional, local and private operators. Ridership data and route maps are contained in an appendix, as is information on transit services available for persons with disabilities.

The report emphasizes the role of public/private cooperation in improving public transit services in Northern Virginia. The Northern Virginia Transportation Plan calls for $10 billion in highway and transit improvements by the year 2010 in order to maintain current traffic conditions despite sharp growth in travel. Private developers are increasingly incorporating new Metrorail and Virginia Railway Express commuter rail stations into project designs as a means to mitigate traffic. To help meet the $7 billion shortfall of revenues necessary to fund the Plan, NVTC and its regional, state and local government partners are contemplating major debt issues, while the private sector is proposing to help fund new rail service in the Dulles Corridor and completely fund an extension of the Dulles Toll Road to Leesburg.

Regarding marketing,NVTC and the public/private Ballston Partnership are cooperating to operate the Region's first transit store, which sells transit fare media, matches carpoolers and dispenses information in a location convenient to thousands of persons who live and work in the Ballston area.

Institutional reforms are also facilitating transit coordination. NVTC and Loudoun County are actively working to enable the Loudoun County Transportation Commission to join NVTC. Several private Transportation Management Associations (TMA's) have been implemented to fight local traffic congestion through active work with employers to apply demand management techniques (flexible work hours, ridesharing). TMA's also are effective in increasing the supply of transportation services through brokering, signal and intersection improvements, and arranging for new bus routes.

Public transit ridership has responded to these cooperative public/private efforts. For FY 1989 (concluded on June 30, 1989), ridership on Metrorail and the region's several bus systems in Northern Virginia approximated 200,000 passenger trips an average weekday.

TABLE OF CONTENTS

TABLE OF CONTENTS (cont'd)

LIST OF FIGURES

INTRODUCTION

In early 1984 the Northern Virginia Transportation Commission initiated a formal process for creating a Bus Service Coordination Plan by adopting a set of goals:

- Improve transit information sharing within the region;
- Provide better coordination of bus planning and service; and
- Improve bus service benefits relative to costs.

To accomplish these goals, the Commission has since implemented a rigorous coordination process and established an annual reporting mechanism. This is the fifth in the series of reports on NVTC's Bus Service Coordination Plan. Since the focus of the planning process has expanded beyond buses to include commuter rail and other High Occupancy Vehicle (HOV) strategies, the report has been renamed to include transit service.

The first annual report (September 1985) described the data that NVTC had gathered to initiate its planning process. The report also defined new processes and introduced new products. For example, computerized tools for analyzing and improving transit performance were developed, such as an automated ridership reporting system. Primary emphasis was on effective planning for restructuring bus service in the corridor served by

Metrorail's Orange Line extension to Vienna.

The second annual report (September 1986) built on the base of its predecessor, by applying the tools developed earlier to specific issues, such as the problems pertaining to passenger connections between transit systems, information needs of passengers and policymakers, efficient operations and performance, and existing and future financial conflicts. The Commission's series of planning sessions and public hearings on bus service adjustments in the Orange Line corridor culminated in a highly successful opening of new Metrorail service in June 1986, with Metrorail ridership exceeding expectations.

For its third annual report (September 1987), NVTC's planning efforts focused on more effective transit marketing, assimilating substantial increases in state financial assistance, debating revised financial aid allocation formulas, furthering the commuter rail project and balancing accelerated construction of the Franconia/Springfield Metrorail station against competing financial needs. Given the serious and growing problem of traffic congestion and public demands for relief, the report systematically reported on activities of 22 agencies with some role in transportation in Northern Virginia. An appendix summarized over 30 recent and ongoing transportation planning studies.

In the fourth annual report (September 1988) an effort was made to bring together ridership and route information for all public transit systems in the region in order to facilitate public understanding of

connections between the systems. Also, a detailed listing of transportation services for mobility-impaired persons was prepared.

For this fifth annual report, the focus is placed on alternatives for financing the transportation improvements that have been identified in the recently completed Northern Virginia Transportation Plan. Special efforts to combine public and private resources are necessary to reduce the $7 billion shortfall of transportation funding identified between now and the year 2010. To that end, new studies are underway and new sources of revenue and institutional arrangements are being actively pursued. NVTC's strong emphasis on better marketing of public transit and ridesharing to improve the performance of existing systems is continuing.

The target audience for these reports, in addition to NVTC Commissioners, includes state and local government officials, citizens groups, and consultants (who may need a ready baseline of transit and ridesharing data from which to begin their studies).

NVTC's Transit Service Coordination Plan is not a typical government plan, in which routes are drawn on a map or specific equipment needs identified. Rather, the Commission's plan is a process which seeks to accomplish improvements by changes in the way local and state governments and the private sector think about, address and solve transportation problems. Thus, the NVTC plan can never be "complete;" the process must be continually enhanced and revised to accomplish steady progress toward its objectives. The annual reports that describe the process and the progress are, therefore, more on the order of dynamic proposals rather

Figure 1

NVTC OFFICERS AND COMMISSIONERS

--1989--

Lilla Richards, Chairman
John G. Milliken, Vice-Chairman
George T. Snyder, Jr., Secretary-Treasurer

Arlington County

Ellen M. Bozman
John G. Milliken
Mary Margaret Whipple*

Fairfax County

Joseph Alexander*
Sharon Bulova
Katherine K. Hanley**
Audrey Moore
Lilla Richards

City of Alexandria

James P. Moran, Jr.
T. Michael Jackson**

City of Fairfax

George T. Snyder, Jr.

City of Falls Church

Carol W. DeLong

Virginia Department of Transportation

Sally H. Cooper

General Assembly

Senator Joseph V. Gartlan, Jr.
Senator Edward M. Holland
Delegate James F. Almand
Delegate Bernard S. Cohen
Delegate Robert E. Harris

* Principal member of Metro Board
**Alternate member of Metro Board

than static blueprints. The reports set forth strategies across a broad front for coping with congestion and coaxing more productivity from scarce transportation resources.

The genesis of the Commission's planning process was Virginia Senate Resolution #20, passed in 1983, that directed NVTC and the former Virginia Department of Highways and Transportation (VDH&T, now VDOT) to conduct a thorough study of bus transportation in Northern Virginia. The resulting 1983 study (Report on the Feasibility and Desirability of Locally Sponsored Bus Service in Northern Virginia) concluded that while NVTC should not promote decentralization of bus service outside the regional network operated by Metro, it should take an active role by developing a bus service management plan. That plan should examine feasible options for planning, routing, scheduling, establishing fare structures, operating, marketing, and coordinating a diverse set of public transportation services in Northern Virginia.

It is toward those goals that NVTC's series of reports on its Transit Service Coordination Plan is focused.

ROLE OF THE NORTHERN VIRGINIA TRANSPORTATION COMMISSION

NVTC was created by the Virginia General Assembly in 1964, and consists of 18 Commissioners representing five Northern Virginia jurisdictions and the Virginia Department of Transportation. Figure 1 shows the current membership.

Figure 2

NVTC 1989 WORKPROGRAM

COMMUTER RAIL

File state financial assistance grants by February 15, 1989.
Complete negotiations with RF&P, Conrail, and Norfolk Southern.
Obtain final approval of the Master Agreement.
Issue bonds to finance rolling stock and Liability Insurance Plan.
Order rolling stock and monitor production.
Select a full-time rail manager.
Convene Operations Board.
Complete all other required activities, including construction of platforms and parking lots, set an achievable opening date, and push the project to implementation.

MARKETING

Adopt and implement the 1989 NVTC Marketing Plan.
Emphasize support of commuter rail and Connections project, including maps, signs and a transit store.
Work with the private sector to improve employee access to transit and ridesharing.

METRO

Participate in FY 1990 staff budget review and brief NVTC Metro Board members.
Participate in Post Stark-Harris Task Force activities.

BETTER REGIONAL COOPERATION

Meet with PRTC and Loudoun County to actively cooperate on transit and other issues.
Take the lead in the Governor's Northern Virginia Transportation Planning Initiative.
Encourage Loudoun County to join NVTC.
Publish fifth annual report on NVTC's Transit Service Coordination Plan.
Examine NVTC's role regarding regional transportation planning issues.

IMPROVING TRANSIT FINANCING

Obtain the maximum Federal and state funding to which the region is entitled.
Prepare a revised six-year regional transit capital improvement plan.
Coordinate efforts to obtain new sources of revenue.

NVTC provides a public transportation policy forum for the region, and is charged with allocating $70 million in state, regional and Federal aid each year among its member jurisdictions. The Commission also appoints Virginia's two principal and two alternate members of 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.

While NVTC does not yet operate permanent transit service, it does sponsor demonstrations, such as private taxis serving Metrorail stations in lieu of more expensive bus service. As evidenced by this Plan, the Commission has assumed an active role in coordinating transit and ridesharing services in Northern Virginia, and is working with local governments to maintain stable and reliable funding for these services. NVTC also seeks to improve transit connections and provide better information for passengers, while upgrading performance of transit operators. Marketing transit services is an area of intense current interest on the the part of the Commission, as is leveraging public transit assistance through cooperation with the private sector.

Figure 2 provides a detailed listing of the Commission's 1989 workprogram, which it accomplishes with the assistance of its own staff and that of its member jurisdictions. More information about NVTC, its statutory mandate, history, and accomplishments is available in the Commission's 1989 Handbook. This document, as well as the 1985, 1986, 1987 and 1988 reports on the Transit Service Coordination Plan, are available on request to the Commission.

OVERVIEW OF THE 1989 REPORT

In the next section, major coordination initiatives are reviewed, and plans for financing the serious shortfall of transportation improvements are reported. Special emphasis is placed on the role of the private sector.

Next, the transit and ridesharing services, facilities and patterns of use in Northern Virginia are described. This information is designed to offer a convenient compilation of data regarding transit performance and structure.

The conclusion recounts the objectives of the plan and the efforts NVTC is making to accomplish them. The conditions detailed in this report will be further evaluated by NVTC and local staff and used as the basis for determining NVTC's workprogram for calendar year 1990.

Several appendices provide more detailed information. Appendix I lists the "alphabet soup" of agencies that are working to improve public transit and ridesharing. Appendix II is the adopted workplan for the continuing process of completing the Northern Virginia Transportation Plan. Appendix III gives detailed ridership routes and route-maps for each transit system. Appendix IV reviews the complex transfer policies affecting riders who wish to connect between these systems. Appendix V is a detailed compilation of transportation services for elderly and mobility-impaired persons. Appendix VI reviews ongoing transportation studies. Appendix VII recalls the chronology of the Virginia Railway Express.

Figure 3

SUMMARY OF MAJOR LOCAL
INITIATIVES TO IMPROVE MOBILITY

Alexandria

- Transportation Management Ordinance requiring developers to produce a Transportation Study documenting impacts on traffic and a Traffic Management Plan to mitigate the effects.
- Operate DASH, MetroTaxi, Senior Taxi and DOT.

Arlington

- Crystal City Trolley and Arlington Subway Shuttle Taxi.
- Reduced-price sales of transit fare media to County employees and social service clients.
- Reduced Metrorail and bus fares by $1.5 million annually.
- Participate in Farewheels taxi service for elderly/mobility impaired persons.

Fairfax City

- Major expansion of CUE Bus service set for early 1990.
- Participate in Farewheels.

Falls Church

- Participate in Farewheels.

Fairfax County

- Dulles Corridor study of transit alternatives completed and express bus alternative selected (while preserving rail access).
- The Dulles Area Transportation Association has been formed to seek improvements in access to the Dulles Airport/Route 28 employment area, and the Route 28 Special Taxation District has been implemented to help fund widening of Route 28.
- The Tysons Shuttle is being funded by the County, as well as the Fairfax Connector.
- A special proffer arrangement with Reston Land Corporation has tied future development to concrete traffic mitigation targets, to be achieved using a Transportation Association funded initially by the developer.
- Operate Fastran elderly/mobility impaired service.
- Planning a Transportation Center at Franconia/Springfield Metrorail site with 15 new buses.
- New Metrobus 5W has linked Metrorail and Dulles Corner development.
- New Metrobus 12L, 12S serving the Centreville area.
- New Metrobus 20F, 20P serving Franklin Farms/Pender/Greenbriar.

COORDINATING EXISTING AND PLANNED TRANSIT SERVICES AND FACILITIES

During 1989, several important initiatives are underway to improve transportation in general and specifically to coordinate public transit and integrate it into an effective regional transportation network. Figures 3 and 4 summarize several of these initiatives, and many of them are described in further detail below.

The presentation is grouped according to coordinated planning, financing, marketing, and institutional changes.

COORDINATED PLANNING

In September 1987, Governor Baliles announced a new transportation planning initiative for Northern Virginia. He directed Secretary of Transportation and Public Safety Vivian Watts and Commissioner of the Virginia Department of Transportation Ray Pethtel to meet regularly with local officials to complete a regional transportation plan by the end of 1988. He asked for a plan encompassing highways and public transit, with a map clearly showing projects that all jurisdictions agreed would be built.

This section describes the structure of the ongoing planning effort and reports its progress.

Figure 4

SUMMARY OF MAJOR REGIONAL
INITIATIVES TO IMPROVE MOBILITY

- Governor's Regional Transportation Plan focusing on 1995 and 2010 blueprints for transportation facilities and services and on the required financial resources and legislative changes is being considered for adoption by participating jurisdictions.

- NVTC Connections Marketing Project to improve information and reduce prices for transit patrons using different systems is underway, including a new transit store at Ballston in Arlington.

- NVTC/PRTC Virginia Railway Express commuter rail project to utilize existing rail rights-of-ways as a less-costly alternative to new freeway construction in congested commuting corridors as far as Fredericksburg and Manassas.

- Timed/Transfer Transit Service connecting at major activity centers in new transportation centers and operating on high-speed transitways (HOV-facilities) is being studied. A full-scale regional network is being examined in the regional planning process, while Fairfax County has received a VDOT Demonstration grant for a pilot project in Reston.

- Accelerated Construction of the Franconia/Springfield Metrorail Station is being considered. Fairfax County, Arlington and Alexandria have provided over a half million dollars to fund environmental analysis of the site. It would require at least $120 million and five years to complete the station, but no Federal funds are available.

- COG/TPB is sponsoring a feasibility study of van or mini-bus shuttle service between Bethesda, Maryland and Tysons Corner.

- WMATA has implemented experiments in which Automatic Teller Machines and Postal Vending Machines are available in selected Metrorail stations as an inducement to customers to purchase bus and rail fare media. WMATA also initiated 5:30 A.M. Metrorail service on weekdays.

Background

Northern Virginia's local governments have sophisticated transportation planning staffs to serve elected bodies that recognize the tremendous importance of improved regional transportation. The Transportation Planning Board produces cooperative forecasts of population, employment, and travel. Nonetheless, the level of service on the region's highway network is deteriorating, given the burst of travel demand that has far exceeded the moderately expanded capacity of the system. Among the widely recognized reasons for the situation are:

- o Failure to complete planned transportation improvements in a timely manner;
- o Lack of financial resources;
- o Lack of coordination among jurisdictions; and
- o Failure to match land use and transportation policies.

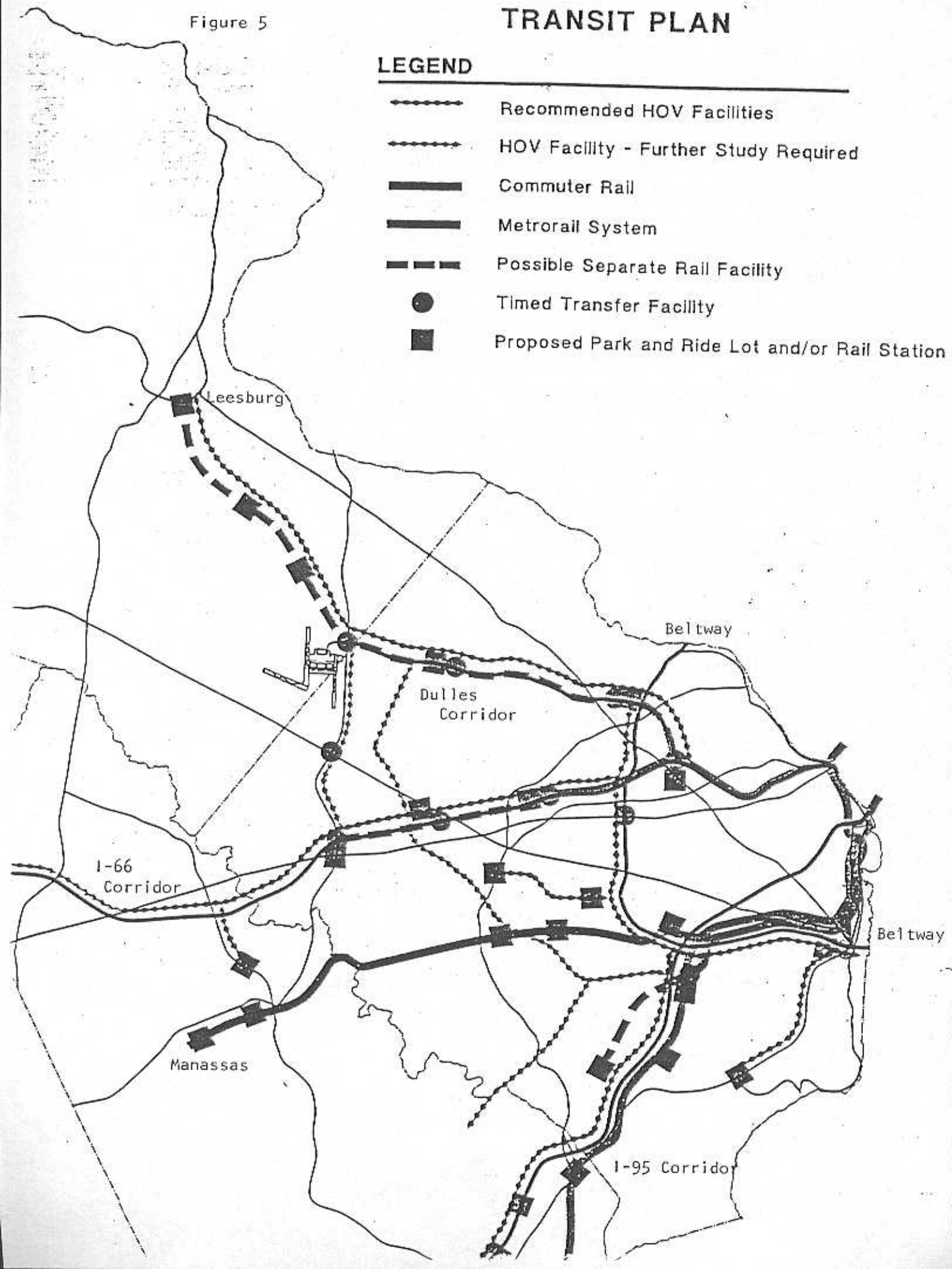
Many of the reasons are being directly addressed in Governor Baliles's regional transportation plan and related actions.

Organization

The planning process involves all five NVTC jurisdictions, all four PRTC jurisdictions, as well as WMATA, the Metropolitan Washington Airports Authority, Herndon, Loudoun County, COG/TPB, the Rappahannock District Planning Commission, the Northern Virginia Planning District Commission and several Federal agencies (e.g. National Park Service). Three committees have been created.

Figure 5

TRANSIT PLAN



- o Policy Committee: Consists of the chief elected officials from each jurisdiction and agency, chaired by Secretary of Transportation and Public Safety Vivian Watts.
- o Technical Committee: Consists of staff representatives from participating jurisdictions and agencies, chaired by VDOT Commissioner Ray Pethtel.
- o Citizens Committee: Consists of almost 70 citizens, chaired by William Plissner (Vice-chair is Albert Dwoskin).

Results

The Plan was completed by the end of 1988 and presented to Governor Baliles in early 1989. It identified $10 billion of highway and transit improvements necessary to hold the line on traffic congestion, given the strong growth to be experienced in the region through the year 2010. Approximately $7 billion of this total reflects recommended transit and ridesharing improvements, including an ambitious grid network of High Occupancy Vehicle (HOV) facilities and timed-transfer centers. New rail services in the Dulles and I-66 corridors were listed as options. Figure 5 shows the transit/HOV grid.

Considering anticipated state and Federal revenues, the Plan identified a funding shortfall of $7 billion through the year 2010, or about $330 million annually.

Figure 6

A.M. PERIOD INBOUND RIDERS
DEMAND VS. CURRENT SERVICE

CORRIDOR	DEMAND *	CURRENT SERVICE
I-95	1,750-2,250	1,700
I-66	500-800	210
Route 7/Dulles	175-200	70

* SG Associates, Inc. estimate

Currently, local governments are considering the plan document for formal adoption. The Policy Committee has proposed a work plan for the next two years to provide more details. The adopted workplan is shown in Appendix II. The Committee must also determine a process for "enforcing" the Plan (encouraging local governments to abide by its terms). The Northern Virginia Planning District Commission has adopted a recommendation that NVTC, together with the Potomac and Rappahannock Transportation Commission, Loudoun County Transportation Commission, and VDOT, establish a cooperative procedure to review regularly local plans for consistency with the adopted regional transportation plan.

New Commuter Bus Markets

In April 1988 NVTC's consultants completed an analysis of potential new markets for commuter bus service in three major commuting categories. Figure 6 contains a summary of the findings. The Route 7 corridor, currently served only by subscription-bus service from Sterling in Loudoun County, appears to be the best candidate for expanded service, since the I-95 already receives extensive service and the I-66 corridor does not offer opportunities for time savings by bus, given an absence of HOV lanes outside the Beltway. Service in the Route 7 corridor would be able to take advantage of the bus-only access to the Dulles Airport Access Highway and make a direction connection to the HOV portion of I-66.

NVTC's study has been sent to all private bus companies and local governments with the request that they consider working with NVTC to enhance service. The Loudoun County Transportation Commission has responded positively, and is examining ways to improve service in the Route 7 corridor.

Other actions can help private bus operators, including joint marketing, better parking for buses stored in or near the D.C. Core during the day, and more HOV lanes.

Americans With Disabilities Act

In August 1989, a Senate Committee passed unanimously S 933, which is receiving widespread bipartisan support and is expected to pass the Congress in 1989 or 1990. The bill provides civil rights protection to disabled persons in employment and transportation, among other protections. NVTC opposed the portions of the bill which require each new bus or railcar to be accessible to persons in wheelchairs. The Commission's position, and that of the American Public Transit Association and the Virginia Association of Public Transit Oficials, is that the local option of how best to provide accessible service should be retained.

NVTC wishes, for example, to utilize a low-cost portable lift, (one per station) to provide accessibility to each railcar in the Virginia Railway Express Commuter rail system. The bill mandates instead that each new railcar must itself be accessible, which may limit NVTC's railcar purchases to the only manufacturer that currently provides such a capability for low-level platform boarding. The result of this absence of competition may be a much higher price to taxpayers for the railcars.

Another very costly aspect of the bill calls for wheelchair-accessible, fixed-route transit service and comparable paratransit service (for disabled patrons who choose not to use the fixed-route services). Since many of Northern Virginia's transit operators do not now operate such paratransit service, if the Americans with Disabilities Act is signed into law as expected, major new paratransit services will need to be designed, implemented, and paid for.

Consequently, during the next year, public and private transportation providers must work together to design an efficient and affordable paratransit network that will provide service at least comparable to existing fixed-route services, and state and local government agencies must devise a means to support such a system financially and through effective marketing.

Public Transit's Role in Facilitating Major New Developments

All up and down the RF&P/I-95 corridor to Spotsylvania County (south of Fredericksburg) and along the I-66/Southern Railway corridor to Fauquier County (Southwest of Manassas), major new developments are planned. Many of the developers have explicitly recognized the role that public transit must play in facilitating access to these developments.

For example, Alexandria 2020 is seeking to redevelop the 320-acre Potomac Yard, owned by the RF&P and CSX Realty, Inc., in Alexandria and Arlington. Up to 18 million square feet of office and residential space is proposed over the next 30 years. For comparison, Crystal City has 10.2 million square feet of offices, and Alexandria currently has 11 million feet in the entire 15-square mile city.

The Alexandria 2020 Developers are proposing to construct two new Metrorail stations with a major transfer center to the commuter rail line. The rail stations would cost $20 million each. Public/private partnerships are suggested by the developer to accomplish these and other transportation improvements.

The Norfolk Southern Corporation and Oliver E. Carr Company are proposing a 6.8 million square-foot development for railroad property in Alexandria south of Duke Street near Route 1. Commuter rail connections also have been stressed by these developers as a means to help cope with the traffic induced by the planned development.

Alexandria has adopted an ordinance which requires such developers to identify traffic impacts and to propose plans for reducing single-occupant automobile use by at least 30 percent.

Other Unresolved Issues

While much progress has been made in establishing a continuous, cooperative planning process for Northern Virginia, certain additional issues require further work. For example, the Northern Virginia Transportation Plan calls for linking Ridgefield Road in Prince William County to the Fairfax County Parkway in Fairfax County, but the nature and exact location of such a connection is yet to be determined.

The Plan calls for HOV and rail service in the Dulles Corridor and I-66. In the Dulles Corridor, VDOT has been unwilling to agree to open the widened Dulles Toll Road lanes to HOV users as soon as they are completed. NVTC has vigorously argued for opening the lanes for HOV use promptly to serve as an inducement for ridesharing.

Also, the Plan calls for HOV lanes on the Beltway. While it is clear that HOV lanes on the Beltway are required as part of an effective regionwide HOV Grid Network, it is not readily apparent how such lanes could be added in a safe and affordable manner. VDOT is sponsoring an ongoing study of Beltway improvements, and the project team is now

developing and evaluating two concepts. The first concept would provide an HOV lane in each direction and the second would add two new HOV lanes in the median (one in each direction).

Where future conditions may warrant development of new rail service, how should scarce current resources be allocated to preserving such future options?

NVTC has adopted a policy that addresses preserving rail and HOV rights-of-way when major transportation projects are implemented. The need for such a policy became evident when the Northern Virginia Regional Plan recommended six conventional lanes plus rail and HOV treatment of I-66 outside the Beltway, while VDOT's I-66 feasibility study called for ten lanes of conventional highway as well as separated HOV but no rail, and it was unclear whether interchanges had been (and were being) built to accommodate such important future public transit options.

The following 10-point policy has been adopted by NVTC and sent to VDOT and local governments for their consideration:

1) As soon as possible, VDOT and local jurisdictions should adopt a comprehensive long range Northern Virginia Transportation Plan that identifies possible corridors and routes for HOV and rail facilities.

2) For facilities not addressed in the adopted regional transportation plan, this policy should be applied to the comprehensive plans of local jurisdictions.

3) For all corridors, routes or major interchanges identified in the regional or local plans, no design, land acquisition or construction decision should be made by VDOT or local governments without an explicit consideration of the benefits and costs (over the life of the facility) of incorporating provisions for rail and/or HOV access. Specifically, the analysis should evaluate a range of alternatives for incorporating rail and HOV options (including access, stations and parking) compared with building a facility now that does not include such rail and HOV options (which would consequently require expensive retrofitting in the future).

4) The studies (e.g. life cycle, benefit/cost or alternatives analyses) should consider rail and HOV separately and in combination.

5) The studies should be particularly concerned with benefits and costs of preserving access to the facilities in question (such as ramps, nearby stations and parking) and preventing incompatible land use that may encroach on access. Final land use decisions should be made by each local government.

6) The studies should also explicitly consider safety issues (e.g. temporary HOV lanes.

7) The studies should not unduly delay the design and construction of transportation facilities.

8) The scope of the studies should vary with the cost and complexity of the facility being evaluated. A full alternatives analysis should be conducted for each possible rail corridor, whereas less detailed analyses may suffice for projects requiring less investment.

9) The explicit consideration of benefits and costs should include the best available information gleaned from existing studies, or—where inadequate information exists—from new analyses.

10) Each agency or local government should adopt its own methods for evaluating these matters, but the methods should be adopted explicitly and coordinated through the regional transportation planning process. Thus, in order to encourage regional consistency given the multi-jurisdictional nature of most corridors, the methods and studies of alternatives should be reviewed using the mechanism that is established to review local transportation plans for consistency with the regional plan.

COORDINATED FINANCING

As stated above, Northern Virginia faces an annual shortfall of transportation funding of about $330 million between now and 2010. To reduce that shortfall, local governments are undertaking a variety of measures, including issuing debt, obtaining private-sector donations and proffers, and considering new local-option taxes.

Figure 7

USES AND SOURCES OF TRANSIT FUNDS

IN NORTHERN VIRGINIA

(FY 1985-1989)

($Millions)

	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
USES OF FUNDS					
Operating Costs					
Bus	$ 63.5	$ 60.7	$ 62.8	$ 67.0	$ 69.7
Metrorail	42.6	47.8	$ 61.5	$ 66.5	$ 65.5
Commuter Rail			.1	.6	1.1
	106.1	108.5	124.6	133.6	137.[illegible]
Metrobus Debt Service	7.5	5.6	7.5	7.6	5.5
Capital Costs					
Bus and Metrorail	30.6	23.2	14.8	22.4	22.8
Metrorail[1] Construction	111.6	97.8	50.0	55.7	[illegible]
Commuter Rail			-	9.2	5.5
Total Uses	$256.7	$235.0	$209.3	$224.5	$193.0
SOURCES OF FUNDS					
Operating Revenues					
Bus	$ 22.7	$ 18.8	$ 18.8	$ 20.7	$ 17.8
Metrorail	28.9	31.2	41.4	45.2	50.7
Commuter Rail		-		-	
Subtotal	50.6	50.0	60.2	66.[illegible]	[illegible]
Federal Grants					
Metro Capital	7.0	13.4	3.8	15.7	3.2
Metro Operating	5.3	5.8	4.4	4.1	4.2
Transitways	97.3	70.8	67.6	64.1	35.1
Commuter Rail	-		-	.8	-
State Aid	30.6	21.1	28.6	55.9	51.2
Regional Motor Fuels Tax	9.8	9.8	9.2	9.4	10.8
Local	57.0	58.1	42.4	25.7*	22.9**
Total Sources	$258.[illegible]	$229.5	$208.3	$224.9	$195.0

Source: NVTC estimates.
* Includes $150,000 in local funds from non-NVTC localities.
** [illegible]

Current Situation

As shown in Figure 7, about $200 million is spent annually in Northern Virginia on public transportation alone. NVTC receives about $70 million each year from Federal, state and regional sources to support transit operations and construction, which its members share.

Potential New Sources of Funding

In 1989 the Virginia General Assembly passed a new law permitting local governments to impose a local-option income tax of up to one percent, following a local referendum. No local jurisdiction has yet chosen to place the option on the ballot.

Some citizens have expressed concern that businesses are not being asked to pay enough to support transportation improvements. To document the tax effort of the private sector relative to specific state and local public sources, NVTC is undertaking a consulting study to be completed by December 31, 1989. As shown in Figure 8, the scope of the study is ambitious and should provide accurate data and firm recommendations as to the appropriate mix of private and public resources that should be devoted to improved transportation.

Figure 8

SCOPE OF WORK FOR STUDY OF FINANCIAL

RESOURCES FOR TRANSPORTATION IN NORTHERN VIRGINIA

Task 1 Identify all sources of transportation funding utilized in Northern Virginia to include:

a) local revenues
b) state taxes collected in Northern Virginia
c) federal taxes collected in Northern Virginia
d) local budgets
e) private sector (proffers)
f) user fees, tolls
g) license and titling fes
h) local real estate and personal property taxes

Task 2 Quantify the amount of funds made available for transportation related projects in Northern Virginia for each of the sources identified in Task 1.

Task 3 Identify and quantify the amount of individual income tax paid by partnerships, and subchapter-S corporation in Northern Virginia.

Task 4 Identify and quantify the amount of revenues directed toward transportation in Northern Virginia derived from transient.

Task 5 Identify and quantify the proportion of taxes under task 1 paid by business activity in Northern Virginia including: proffers, direct business taxes and percent of general fund taxes paid.

Task 6 Research at least two sources of state comparisons to provide information on sources of funding for transportation. Identify two other areas in the United States which are comparable to Northern Virginia, and for those areas provide information on sources of funding for transportation.

Task 7 Recommend an equitable funding balance between federal, state, local, private and user fees.

Task 8 Recommend whether it is reasonable to expect local governments to provide more funding for transportation improvements.

To support the Virginia Railway Express (VRE) project, NVTC and its partner, the Potomac and Rappahannock Transportation Commission, have devised a financial plan that calls for borrowing up to $90 million to purchase 38 new railcars and 10 rehabilitated locomotives and to fund the reserve for a Self-Insurance Trust. The basis of this tax-free debt issue would be an "appropriation-based credit" which is subject to annual appropriation by participating jurisdictions. This method has been successfully used to fund Metrorail contributions for nearly 20 years. In this way, NVTC itself, or its non-participating member jurisdictions, would not be liable for repaying the bonds. Rather, the annual appropriations of the participating jurisdictions, including the Commonwealth Transportation Board which provides state aid, would provide the basis for lenders to advance the funds.

To operate and maintain the commuter rail service, NVTC and PRTC will contract with AMTRAK. The Commissions will also contract with three private railroads (Richmond, Fredericksburg and Potomac; Southern and Conrail) to use their rights-of-way.

Fairfax County has determined that it may wish to pursue the same sort of NVTC debt issue to fund up to $400 million of transportation improvements at an annual debt service cost of only $50 million. To achieve this substantial leverage, the County would contract with NVTC to issue the tax-free debt. The County would direct the spending and be totally responsible for covering the debt service. At this point, County staff is still working on the details of the proposal.

Cooperatively Funded Projects

Virginia has only one unfunded Metrorail station: Franconia/Springfield. To complete this station would require at least $120 million and about five years. Congress is being asked to authorize an additional $2.1 billion to complete the entire 103-mile Metrorail system throughout Virginia, Maryland and the District of Columbia, but the passage of such a bill is uncertain. Consequently, Fairfax County, Arlington and Alexandria have provided over $600,000 of non-Federal funds to WMATA to investigate environmental conditions at the Franconia/Springfield site and to obtain the necessary permits.

A "letter of no prejudice" has been obtained from the Urban Mass Transportation Administration that will permit some of these local payments to be reimbursed from Federal grant funds, when they become available in the future.

The Franconia/Springfield site will serve as a major transportation center. In addition to the Metrorail station and 3,500 parking spaces, a VRE station is proposed to be located at the site. In the meantime, Fairfax County proposes to build a parking structure consisting of 1,500 spaces of the 3,500 planned, perhaps including commercial enterprises catering to commuters (e.g. dry cleaners, newspaper vendors, barber shops). New express bus service may also be established by the County from the Transportation Center.

Another example of cooperative funding involves all five NVTC jurisdictions. They have advanced about $1.3 million to WMATA to purchase land from VDOT to allow expansion of the Four-Mile Run Bus Garage. This will, in turn, permit the Arlington Bus Garage on Randolph Street to be closed to permit a street-widening project in Ballston.

Light-Rail to Dulles

The median of the Dulles Access Road, which is owned by the Metropolitan Washington Airports Authority, has always been planned for use as a rail line. Rail service in the corridor is included in the Northern Virginia Transportation Plan. However, an extensive consultant study performed for Fairfax County persuaded the County Board to move first to implement express bus service in the corridor, while preserving access for a future rail line and supporting stations and parking lots.

A private group known as DartRAIL has proposed detailed plans for a rail system that would link with Metrorail at the East Falls Church station and use identical railcars as those used by Metro. The capital cost of the system would be over $500 million. To cover these costs, DartRAIL has proposed a public/private partnership, in which a new special taxation district would be created. A similar taxation district has been set up to tax local commercial property owners to help fund major improvements to Route 28, near Dulles Airport.

According to the DartRAIL plan, NVTC would issue bonds to initiate the project and contract with the private sector to operate the rail service.

One member of the Metropolitan Washington Airports Authority's Board of Directors has proposed that the Authority build a rail line from the East or West Falls Church Metrorail stations to Dulles Airport with no stops. Developers who wish to gain access to the line would be required to pay the entire costs of such access.

Dulles Toll Road Extension to Leesburg

The Virginia Toll Road Corporation won permission from the Commonwealth Transportation Board in July, 1989 to initiate construction of a privately owned extension of the Dulles Toll Road from Dulles Airport to Leesburg, a distance of about 35 miles. The private firm will be totally responsible for obtaining the right-of-way and financing for the project. It will levy the tolls, subject to approval from the Virginia State Corporation Commission.

This private project, which will relieve VDOT of the responsibility to construct the extension, should permit surplus toll revenues from the existing Dulles Toll Road to be applied instead to other transportation improvements in the region. The Metropolitan Washington Airports Authority has adopted a resolution asking VDOT to make available these excess revenues for such uses as a condition of receiving permission from the Authority to utilize land needed for Toll Road access.

Figure 9

1989 MARKETING PLAN
SUMMARY OF ACTIVITIES

1. Promote Cooperative Marketing Efforts Within Northern Virginia Region
2. Support Regional Strategic Market Planning
3. Cooperate with the Governor's Northern Virginia Transportation Planning Initiative
4. Implement and Promote a Transit Store
5. Advocate Targeted Marketing in Areas Served by Transit
6. Improve Signs to Make Transit More "User Friendly"
7. Develop Easily Read Transit Maps
8. Develop and Implement a Commuter Rail Marketing Plan
9. Advocate Improved Transit Connections Among Systemsk
10. Broaden Metro's Family/Tourist Pass Sales Outlets and Increase the Number of Transit Systems That Participate
11. Encourage Public and Private Employer Involvement in Transit
12. Enhance Information Available at Metrorail Stations
13. Enhance Regional Transit Information Coordination
14. Offer Transit Information Packages to New Users of the Region's Transit Services
15. Promote Public Transit in Northern Virginia via the Media
16. Utilize Market Research Techniques to Identify Potential Transit Markets
17. Support Reverse Commuter Transit Services
18. Utilize NVTC's Commuter Cost Model
19. Maintain Computerized Marketing Inventory
20. Record and Follow-up on Public Comments Regarding Transportation Issues

COORDINATED MARKETING ACTIVITIES

NVTC and its member jurisdictions engage in active marketing efforts to promote public transit and ridesharing. Increasingly, these efforts are involving the private sector. As explained below, NVTC is conducting a year-long demonstration of a "transit store" at Ballston with the Ballston Partnership. The Washington Metropolitan Area Transit Authority is experimenting with Automatic Teller Machines in selected Metrorail stations, with the participating private banking system paying the full costs of the machines, while customers are able to obtain cash for farecard purchases. Employers are increasingly providing active support for ridesharing promotions and sales of transit passes to their employees.

NVTC Marketing Plan

In an effort to formally identify marketing strategies and activities, the Commission has adopted marketing plans since 1986. Marketing initiatives are programmed over a five-year period, with progress reviews undertaken quarterly.

The adopted 1989 marketing plan is designed to assist in improved revenue to cost ratios of Metro and local bus systems. In addition, the plan seeks to promote ridesharing through effective High-Occupancy-Vehicle (HOV) facilities and a region-wide ride-sharing program. Figure 9 lists highlights of NVTC's plan.

NVTC Marketing Activities for 1989

In 1989 the primary emphasis of NVTC marketing activities has been on improved access to fare media and transit information. NVTC staff in partnership with the staff of member jurisdictions and Metro have concentrated this year on expanding the range of information services and materials targeted to the existing and potential transit user. Most noteworthy of these activities are the Connections Project and Improved Transit Information for Disabled Persons.

Connections Project

NVTC, in cooperation with its five member jurisdictions, the Washington Metropolitan Area Transit Authority and the Metropolitan Washington Council of Governments, initiated a "Connections" marketing campaign in February, 1989. This campaign is patterned after the successful Regional Connections theme developed by the Metropolitan Transportation Commission in the San Francisco Bay Area. Funding for the project is being provided by a $100,000 Federal grant from the Urban Mass Transportation Administration under its Section 4(i) program. An additional $33,333 has been granted from oil overcharge refunds available to the Commonwealth of Virginia.

The purpose of the Connections campaign is to increase public transportation ridership in Northern Virginia by promoting the concept that transit connections can be made with ease. This is being accomplished by improving public information (better signs, maps and brochures), reducing the price of traveling by public transit where transfers between systems are required (low-cost passes), and making transit use more convenient through wider acceptance of fare media among systems. Convenience of service is also being emphasized with the opening of a "transit store" and providing the availability of fare media by mail. In other words, the campaign is designed to demonstrate how better connections can encourage more use of the region's diverse transit systems.

With the assistance of an advisory committee, three major activities have been chosen for the Connections Project and are now well underway. These are: 1) brochures, maps, and signs; 2) a transit store; and 3) improved fares, transfers and passes. (Several other candidate activities were reviewed and may be implemented through other means; i.e. future grants or ongoing marketing programs of the region's transit providers).

The first phase of the Connections Project involves the production of three brochures. One brochure lists all transportation services available within Northern Virginia with an explanation of how to reach popular destinations and how to transfer. Two other brochures (for Ballston and

Old Town Alexandria/King Street) contain schematic "connections" and an area local map. The brochure and Ballston map were distributed in June, 1989 and an evaluation of their effectiveness will be undertaken within the next few months. The Alexandria map will be released in September, 1989.

The second phase of the project involved design of "user-friendly" signs at major connections points to facilitate transfers. NVTC's design consultants have developed signs and NVTC has worked closely with the Washington Metropolitan Area Transit Authority to have these signs placed outside stations at appropriate locations. NVTC regional connections maps will also be placed inside selected Metro stations. These large, multi-color posters show rail and bus routes and major connections points throughout Northern Virginia.

Another related activity of the Connections Project has been the planning and opening of a transit store. On June 24, 1989, the Ballston Transit Store was officially opened to the public. The transit store at Ballston is the first local specialized sales outlet in the region for all transit systems and all types of fare media. Cosponsored by the Ballston Partnership and NVTC, it is a good example of cooperation between the public and private sectors. Services provided at the store include:

- Sale of farecards, bus passes, tickets and family/tourist passes for the Metro system and local transit systems. Sales will also be made by mail or telephone using major credit cards.

Figure 10

ASPECTS OF TRANSIT STORE OPERATION TO BE TESTED

- Location at or near a Metrorail station serving as a transfer site (e.g. Ballston, Alexandria King Street).
- Location at or near a major retail center.
- Convenient hours for commuters and/or shoppers to purchase fare media and receive information.
- Availability of fare media by vending machines.
- Availability of information by customer-operated computers.
- Connections to Metro's ARTS transit information database.
- Connections to COG's RIDEFINDERS ridesharing database.
- Management by private sector.
- Donation of facilities by developer and/or employers.
- Sales of newspapers and sundries.
- Sales of products (e.g. T-shirts) with transit logos.
- Sales of fare media by telephone/mail and use of credit cards.
- Cost sharing with local governments providing a gradual reduction in grant-funded portion.
- Use of focus groups and professional retail consultant for proper design.
- Analyze the increase in transit ridership resulting from the added convenience of the store.
- Possible use of portable kiosks.

- Information on bus and rail routes and schedules.
- Car-pooling assistance with a direct link to the regional ride-matching database.
- Outreach to employers to help establish programs that will improve employee commuting and relieve traffic congestion.
- Special emphasis on transit services for mobility-impaired persons.

Anticipated results from the year-long operation of the store will be to demonstrate to area governments and the private sector that such stores will be a cost-effective and popular means to provide easy access to transit fare media and information. Also it is expected that as the Ballston Partnership establishes a "transportation management association" (TMA) the transit store will be included as a continuous component. The results of the store's effectiveness are tracked through periodic sales analysis and customer survey reports. Early sales have averaged about $1,800 a week, with stronger sales expected after Labor Day when transit ridership traditionally rebounds.

One result of continuing customer surveys has been the lengthening of store hours to 7:00 A.M. through 7:00 P.M. weekdays and 10:00 A.M. to 2:00 P.M. Saturdays. Originally the store was open only from 10:00 A.M. through 6:00 P.M. on weekdays.

Figure 11

TRANSIT STORE PROGRAM FOR MOBILITY-IMPAIRED PERSONS

- Information and referral for existing transit programs and service.
- Disseminate braille and tape brochures and maps.
- Surveys of needs for scheduling lift-equipped Metrobuses.
- Community forums for ideas on better service with existing resources and policies.
- Training sessions for using existing services.
- Promote regional approach to special transit services that are not confined to local boundaries.
- Develop new signs and information displays.
- Expand store's outreach with volunteers.
- Install special communications devices for the deaf (TDD) at the store.

NVTC expects to establish additional stores in the region relying on the results of the Ballston experiment and funding primarily from the private sector.

Figure 10 lists those aspects of the store's operations that are to be tested for future applications.

- Improved Transit Information for Mobility-Impaired Persons

In past experimental projects, NVTC has been successful in bringing together government and the private sector to finance and operate new and innovative services. The improved transit information for disabled persons is a project which continues these emphasis areas (i.e. private sector involvement and improved marketing).

An important component of the transit store operation at Ballston is implementation of an outreach and information program for mobility-impaired persons. This aspect of the store's operations is funded by the Rail and Public Transportation Division of the Virginia Department of Transportation. These activities are listed in Figure 11.

Commuter Rail Marketing

A state grant of $150,000 is available to support initial marketing of the Virginia Railway Express. Among the activities to be undertaken to boost future ridership of the system when it opens (expected to be in late 1991) are:

- Widespread sales of VRE passes at bank outlets and supermarkets.
- Sales of VRE engineers caps and other souvenirs.
- Citizen forums sponsored by the Friends of the Virginia Railway Express.

Again, the private sector will be heavily involved, especially with targeted promotions at those stations likely to be associated with particular developments (e.g., Woodbridge, Pohick/Lorton).

NVTC has developed a marketing plan specifically for the VRE project, which will be implemented by the Operations Board.

Instant Carpools

At several Northern Virginia locations (e.g., Springfield Cinema) commuters have organized impromptu carpool staging areas for drivers to pickup sufficient riders to qualify for using the HOV lanes. Drivers enter the lot and announce their destination (e.g., 19th and K or Pentagon) and the first passengers in line enter the cars in an orderly

fashion. Persons returning in the evening queue along the 14th Street corridor in the District of Columbia. As of mid-1987, almost 1,000 riders entered vehicles from the Springfield CBD on a typical weekday morning.

Such arrangements would seem to offer low-cost alternatives to express bus service, but unfortunately active support by local governments is complicated by difficulty in obtaining suitable park-and-ride locations in Northern Virginia. Liability is also of concern, since the carpools are totally ad hoc. Also, District of Columbia officials have restricted access to such carpools along 14th Street, citing traffic congestion. Use of the carpools is unbalanced: many carpoolers use buses to return home in the evening. As a result, transit authorities cannot significantly reduce subsidies by cutting back services, since they must have sufficient buses and drivers to serve the evening peak.

Consequently, the potential for expanding this spontaneous, unsubsidized commuting mode may be limited. Nonetheless, some additional public marketing assistance is certainly in order.

COORDINATED INSTITUTIONS

In Northern Virginia there is an apparent increased willingness for governments and the private sector to cooperate. Among the examples discussed above were:

Figure 12

Urban Land Institute
Seminar on Transportation Management Associations
October 7, 1988

1) TMA's should be a private sector response to performance standards determined by governments. Governments should not require that TMA's be established, since to do so would inhibit the flexibility which is the greatest strength of TMA's.

2) TMA's are best established to treat specific, short-term problems in small areas. After these are addressed, broader and longer-term concerns common to all TMA's could be attacked through some regional cooperative mechanism (such as networks of transit and HOV facilities and timed transfer locations linking several different TMA's).

3) One common need of TMA's is for information about origins and destinations of employees to permit planning of adequate transit and HOV services. Governments and TMA's can cooperate to gather this information.

4) TMA's can assist governments by identifying specific park-and-ride lot locations and encouraging members to cooperate in regional mobility programs. Commercial enterprises located at parking sites may minimize driving within the TMA's. Where insurance problems limit the ability of governments to provide park-and-ride lots, TMA members should cooperate to help secure adequate protection.

5) TMA's should work with members to design and implement physically convenient sites for HOV and transit users to improve access to worksites within the TMA.

6) TMA's should be aggressive providers of information to potential transit and HOV users by meeting directly with employees of members.

7) To facilitate communication, public transit agencies and citizens should be represented on TMA's governing and/or advisory boards.

8) Although TMA's are unlikely to be successful in imposing higher parking fees as a means to encourage transit and HOV use (since to do so might cause members to quit), TMA's should seek to price transit services appropriately and be certain that high quality transit services are provided in order to compete against the private automobile.

- o VDOT-funded regional transportation plan with policy and technical guidance from local and regional government bodies and citizens groups.
- o Study of public/business tax sources funded by local governments.
- o New public-private marketing initiatives, such as the Ballston Transit Store.
- o Virginia Railway Express Operations Board formed by NVTC and PRTC to oversee planning and implementation of the cooperative commuter rail project.

Transportation Management Associations

In addition to cooperation among existing agencies, there are new institutional mechanisms being formed and under consideration. One example involves primarily the private sector, in which transportation management associations (TMA's) are being formed. These private organizations focus on specific areas and work with employers and local governments to provide better transportation. Figure 12 summarizes the recommendations of a representative group of citizens and local staff regarding the ideal role of TMA's.

The Dulles Area Transportation Association (DATA) has surveyed members and is establishing its own ridesharing database. It has also coordinated intersection improvements using engineering expertise donated by its members, in cooperation with VDOT. DATA has also arranged for a new Metrobus route, the 5W, to serve Dulles Corner during rush hours.

The Ballston Partnership, which has worked so well with NVTC to establish the Ballston Transit Store, is also actively considering a formal TMA, although its transportation committee already is performing many TMA functions (including outreach to employers and planning for a local-area shuttle).

At Reston, the Reston Land Corporation is funding a transportation coordinator to establish a TMA and to work for transit and ridesharing improvements. The ability of the Corporation to obtain Fairfax County's permission to pursue greater densities in future development at Reston Town Center depends on its meeting specific traffic density targets. The TMA will work to achieve these targets.

Tytran functions as a TMA for the Tysons Corner area and has sponsored such experiments as a double-decker shuttle bus.

Proposals for a New Regional Transportation Authority

The Policy Committee of the Northern Virginia Transportation Plan has yet to approve a procedure to ensure that local governments seek to implement the regional plan by keeping their individual local plans consistent. One proposal, which has been endorsed by the Northern Virginia Planning District Commission, would have NVTC establish a process in which its members and those of PRTC, the Loudoun County Transportation Commission and VDOT's Northern Virginia District Office would convene annually to review local plans. The ongoing study of financial resources for transportation in Northern Virginia is being managed by a Policy Committee that is set up to mirror the above proposal. It should provide a partial test of the effectiveness of such an institutional mechanism.

A more radical proposal has been put forward by a candidate for Governor, Marshall Coleman. Mr. Coleman calls for abolishing NVTC, PRTC and Loudoun County's Transportation Commission, and creating a strong regional transportation authority with a board of directors serving at the pleasure of the Governor. Several Northern Virginia members of the General Assembly have also proposed creating a new regional transportation authority with powers to raise funds and build highways and other transportation improvements. Among the other groups that have proposed some sort of authority are the Northern Virginia Transportation Alliance and the Metropolitan Washington Airports Authority.

While discussion continues about the need for such a new authority, VDOT has moved to sharply expand its capabilities in Northern Virginia. After creating a "full-service" district office, it received funding from the General Assembly to add over 300 new employees. It is now recruiting and has taken bids for a new facility.

Also, NVTC and Loudoun County are completing negotiations prior to the County joining NVTC as a full member. The Loudoun County Transportation Commission would cease to exist at that time, but its members may continue their work as subcommittees.

Other NVTC Coordination Activities

NVTC has developed several useful tools to help coordinate transit activities in the region during the course of its Transit Service Coordination Plan. These are summarized next:

- NVTC Subsidy Allocation Model: This spreadsheet computer model enables jurisdictions to analyze instantly alternative public transit budget assumptions. For example, what would be the effect on each jurisdiction's share of subsidy costs if a different method of sharing costs were to be utilized?

- o NVTC Cash Flow Analysis: At least once each quarter NVTC provides updated estimates of available and anticipated financial assistance for public transit, which is used by local jurisdictions for cash management.
- o NVTC Research Abstracts File: Given the magnitude of transportation problems in Northern Virginia, at any given time scores of studies are underway regarding the feasibility of transportation improvements. This file provides a summary of ongoing and recently completed research (see Appendix III for excerpts).
- o NVTC Transit Marketing Inventory: This computerized inventory gives over 700 examples of recent marketing initiatives at transit properties around the world. The database can be sorted by city and type of initiative to produce lists of ideas from which transit marketing campaigns can be structured for Northern Virginia. NVTC's annual marketing plan uses the database for this purpose.
- o NVTC Transit Service Request File: The Commission encourages citizens and elected officials to propose ideas for new and improved transit services. When such a proposal is received, NVTC analyzes it, forwards it to the appropriate agency for action, monitors progress, and responds to the person making the proposal.

- o NVTC Transit Ridership Database: Using new data provided by WMATA, the Commission established a computer model for generating jurisdiction and route-specific ridership reports. These reports permit detailed analysis of the productivity of specific route segments. Metro itself now provides similar reports as part of its performance indicator program, so that NVTC has reduced its role to providing special analyses on request from jurisdictions.
- o NVTC Transit Operators' Council: NVTC brought together in 1985 for the first time senior officials in charge of operations from each of the region's transit systems. They continue to meet as necessary to share information and resolve mutual problems. Examples include coordination at the Pentagon bus bays when local buses join Metrobuses at the crowded facility, discussions of engine oil and other fluids analysis programs, and publicizing snow emergency routes and policies in cooperation with local media.
- o NVTC Productivity Inventory: Like the marketing inventory, this computerized database includes successful programs (e.g., a nationwide parts exchange accessed via computer). Entries can be sorted by city and type to generate lists of relevant ideas for productivity improvements.

- o NVTC Transit/Auto Cost Model: Citizens can request a computerized analysis of their true costs of owning and operating a personal automobile compared to the costs of taking transit. A graph provides the results, with specific transit route information given.
- o Home Interview Survey Research: Working with consultants, NVTC devised and implemented a low-cost and effective technique for forecasting potential ridership on new transit routes. The technique uses service groups (e.g., Boy and Girl Scouts) to deliver survey forms to the doorsteps of respondents, and to pick up the completed forms. Responses are then subjected to rigorous screens to project actual transit use. In Centreville, the technique accurately forecast the initial level of ridership on the newly established 12C Metrobus route. It was also utilized by the Commission in Falls Church and as part of a major regional commuter bus study in Loudoun and Prince William Counties.
- o Shirley Highway/I-66 Steering Committee: NVTC's executive director chairs this regional advisory group which meets at the request of VDOT to enhance communications with local, regional and Federal agencies on HOV policies.

TRANSIT SERVICE, FACILITIES AND PATTERNS OF USE

In this section, the regional and local transit services operated by governments and the private sector are described. Also, facilities for the use of high-occupancy-vehicles (HOV) are listed, as are commuter bus routes from outlying counties. Local taxi services supplementing regular transit operations and special services for mobility-impaired persons are also recorded. In the congested environment of Northern Virginia, these facilities and services are heavily used, but given their diversity, better coordination and improved information for riders are a necessity.

WMATA SERVICES IN NORTHERN VIRGINIA

The Northern Virginia area is well served by both bus and rail systems which are operated by the Washington Metropolitan Area Transit Authority and several local government jurisdictions. Together, they form an effective public transit network focused on feeding the regional Metrorail system. Appendix III reports ridership data for these systems and includes route maps. Appendix IV summarizes transfer policies.

Figure 13

August 1989

Status of 103 mile Metro system

Terminal stations on completed system

Red Line—Glenmont/Shady Grove
Blue Line—Addison Road/Huntington
Orange Line—New Carrollton/Vienna
Green Line—Greenbelt/Branch Avenue
Yellow Line—Franconia-Springfield/Mount Vernon Square-UDC

LEGEND

Operating Lines	69.57 miles	64 stations
Under Construction	19.24 miles	13 stations
Under Final Design	5.47 miles	3 stations
Remainder of System	8.71 miles	7 stations

Total Mileage—102.99

Total Stations—87

Early 1991 Projected start of operations for this segment based on approved schedule. Applies to all stations inbound from this point.

1. Farragut North
2. Farragut West
3. McPherson Square
4. Metro Center
5. Federal Triangle
6. Smithsonian
7. L'Enfant Plaza
8. Federal Center SW
9. Capitol South
10. Waterfront
11. Navy Yard
12. Eastern Market
13. Potomac Ave
14. Stadium-Armory
15. Archives-Navy Mem'l
16. Judiciary Square
17. Gallery Pl-Chinatown
18. Mt Vernon Sq-UDC

Washington Metropolitan Area Transit Authority
600 Fifth Street, N.W., Washington, D.C. 20001
Office of Public Affairs

Metrorail

The Washington Metropolitan Area Transit Authority (WMATA) serves Northern Virginia with three Metrorail lines: the Orange, the Blue and the Yellow lines. There are eighteen Metrorail stations located in Northern Virginia; eleven are located in Arlington County, four in Fairfax County and three in the City of Alexandria. Metrorail stations often serve as connection points for various local bus systems as well as WMATA bus service. Approximately 116,200 passengers boarded Metrorail on an average weekday in Northern Virginia during fiscal year 1989. This amount is almost 4,800 passengers higher than last year's daily boarding total. Figure 13 shows the current and planned Metrorail system as of 1989.

Metrobus and rail fares increased on July 1, 1989 for the first time in five years. The maximum rail fare has risen by 15-cents to $2.55 during rush hours and $1.25 the rest of the time. The minimum price for a subway ride has increased by five cents to 85-cents. (An exception is found in Arlington County which subsidizes a special program that reduces rail fares to 60-cents on short trips between certain stations). The minimum price for a Metrobus ride using a Metrorail transfer is fifty cents. The maximum price with a transfer is $2.20, excluding routes that have special surcharges.

Metrorail is in operation from 5:30 A.M. to midnight on weekdays. On Saturday, hours are from 8:00 A.M. to midnight, and Sunday from 10:00 A.M. to midnight. The weekday evening rush-hour was extended from 6:30 to 7:00 P.M. on July 1. Rush-hour fares are now in effect from 5:30 A.M. to 9:30 A.M. and from 3:00 P.M. to 7:00 P.M. on weekdays. Trains generally operate every three to six minutes during rush hour, and every six to 15 minutes during non-rush hours.

Metro currently provides parking at five of its stations in Northern Virginia for Metrorail users. These stations are as follows: Huntington, Vienna, Dunn Loring, West Falls Church and East Falls Church. Each of these parking areas includes spaces for disabled persons.

Bicycles are allowed on Metrorail by permit only.

Metrobus

Peak-period buses serve approximately 59,000 people per day in Northern Virginia; off-peak buses serve approximately 21,500 people per day. Peak-period Northern Virginia Metrobus service consists of seven cross-town lines, 20 local lines and 22 express lines. Off-peak service is provided by six cross-town lines, 16 local lines and six express lines.

Figure 14

PUBLIC TRANSIT SYSTEMS OPERATING IN NORTHERN VIRGINIA -- 1989 --

	# VEHICLES	AVG. DAILY BOARDINGS	FY'90 OPERATING BUDGET
METRO BUS	403	80,061	55,991,658
METRO RAIL	192	116,266	70,008,628
FAIRFAX CONNECTOR	55	9,051	3,648,424
ALEXANDRIA'S DASH	19	4,680	1,760,000
CITY OF FAIRFAX CUE	9	2,470	933,917
RESTON RIDE	2	207	226,000
TYSONS SHUTTLE	2	225	150,000
CRYSTAL CITY TROLLEY	3	800	315,784

On Saturdays Metrobus provides five Northern Virginia cross-town lines and sixteen local lines. Approximately 29,000 people are served on Saturdays. Sunday service consist of four cross-town lines and 14 local lines. Approximately 14,500 passengers are served on an average Sunday.

Currently 22% of the Metrobus fleet is wheelchair lift-equipped. Metrobus also provides an On-Call bus service for mobility-impaired persons who use routes not regularly serviced by lift-equipped buses.

The peak Metrobus boarding charge has increased by 5-cents in Virginia, Maryland and the District of Columbia, and it has increased by 10-cents in the District during off-peak hours, effective July 1, 1989. The base fare for riding Metrobus is now 85-cents throughout the region. There is a 30-cent surcharge for crossing a zone during the peak hours of 5:30 A.M. to 9:30 A.M. and from 3:00 P.M. to 7:00 P.M. on weekdays. Crossing the Potomac River costs an additional 80-cents, although most river crossings are made using a special reduced fare for Arlington for only 30-cents extra. During off-peak hours, the maximum fare is 85-cents for trips anywhere within Northern Virginia.

LOCAL BUS SERVICES

Most of Northern Virginia's local bus systems have experienced increased ridership over the past year. In addition, many will be expanding their service to better serve the transit needs of the localities well into the next decade. Figure 14 compares the size and ridership of Northern Virginia's diverse transit systems.

The Fairfax Connector is by far the largest local bus system. The Connector currently has 55 buses, a $3.6 million operating budget, and average daily boardings of over 9,000 passengers. The service is operated by a private management company under contract to Fairfax County.

The Connector system operates along 14 routes, providing service to southeastern Fairfax County. One bus route provides limited service to the City of Alexandria and four express routes serve the Pentagon. Ten routes feed the Huntington Metrorail station, charging patrons a nominal 25-cent fare. Since these fares were reduced to this level in 1987, ridership has increased 121 percent. The four remaining routes serve the Pentagon Metrorail station and have a fare structure identical to the Metrobus system.

The Fairfax Connector will be experiencing expansion over the next few years. In the west-central part of the County, the Connector will be taking over some Metrobus routes that feed into the Orange line. Fairfax County is currently seeking a location for a new bus garage to accommodate this expansion. The terminal will be completed about 36 months after a site is chosen.

In the Dulles corridor, the County plans to add 76 new buses, along with a number of park-and-ride lots by 1995. Staff has been directed to work with a consultant to prepare an implementation plan for Transportation System Management alternatives, and to develop a plan to preserve land needed to implement rail service in this corridor in the future, should it be warranted.

The City of Alexandria is served by the 19-bus DASH system which operates four routes throughout the City. All the routes operate Monday through Sunday, though service is reduced on the weekends. The Alexandria Transit Company is a public service corporation which operates DASH through a private management company. The City owns the buses.

After a few years of stable ridership, DASH experienced a 10.1 percent increase in patrons in FY 1989. This increase has prompted plans to expand the system. DASH expects to purchase nine additional buses in the coming year, and expand service by adding a fifth route in the Summer of 1990. By April of 1990, DASH hopes to move into its new $1.1 million bus facility. The current weekday ridership is 4,680 passengers.

The CUE bus system, which serves the City of Fairfax, is planning a major expansion starting in April, 1990. The number of buses operating on four of the routes will be doubled. A total of five new buses will be purchased and a new service facility constructed. Fares will increase to 35-cents, a 10-cent increase, starting with the new year. The system is owned and operated by the City.

The CUE system provides service to Fairfax City, George Mason University, and the Vienna Metrorail station along three lines. The Green 1 and Gold 1 routes operate in a clockwise fashion, with the Green 2 and Gold 2 running in the opposite direction. These two lines operate seven days a week, with reduced weekend service. The Red route, which now runs during rush hours, will be terminated in April, 1990. This past year, the CUE system has averaged 2,470 weekday riders.

The Tysons Shuttle provides weekday service only during the morning and evening rush hours between the West Falls Church Metrorail station and Tysons II, various residential complexes, and employment centers in the Westpark Area of Fairfax County. The shuttle, which has been administered by NVTC, will shortly become a permanent addition to Fairfax County's transportation network. The service is operated by a private contractor. Ridership averages 225 passengers each weekday.

The Reston Internal Bus System (RIBS) serves the Reston community. Service to the West Falls Church Metrorail Station is provided by transferring to Metrobus Route 5S. RIBS operates weekdays, with limited Saturday service, and averages about 207 riders each business day. An interesting twist to this system is that it picks up and discharges patrons anywhere along the route (bus stops are not posted). The service is operated by a private contractor.

Figure 15

COMMUTER BUS OPERATIONS
IN NORTHERN VIRGINIA
AUGUST 1989

BUS COMPANY	NUMBER OF TRIPS(AM/PM)	FARE	NUMBER OF AM RIDERS	ORIGIN	DESTINATION	PHONE NUMBER
I-95 CORRIDOR:						
Aries	2/2	$38/2 WEEKS	75	Fredericksburg,Spotsylvania,Stafford	Fort Belvoir (Crystal City route discontinued)	(703) 898-6158
CommuteRide*	26/30	$9 Roundtrip, or 10 - ride ticket for $25 to Crystal City/Pentagon. 10-rides to D.C.:$28	950	Dale City,Woodbridge, Lake Ridge Dumfries,Montclair, Triangle	Pentagon,Crystal City,Downtown D.C.	(703) 494-9166 Metro: 550-7441
Quick-Livick Inc (formerly D & J)	7/7	$52/2 WEEKS	N/A	Fredericksburg,Stafford Co,Spotsylvania Co	Northern Virginia only	(703) 373-6027
Greyhound	3/3	$17.25 Roundtrip, or 10-ride commuter ticket for $32.25	100	Fredericksburg	Downtown D.C.	(703) 373-2103
Lee	3/3	$8.50 Roundtrip	128	Fredericksburg,Stafford County	No. VA only: Pentagon,Crystal City,Rosslyn	(703) 371-6785
White's	7/7	$15 Roundtrip	N/A	Stafford Co,Spotsylvania Co	Downtown D.C.	(703) 898-6154 or 820- 8178
I-66 CORRIDOR:						
CommuteRide*	2/3 2/2	$2 Roundtrip See CommuteRide above	45 65	Manassas Manassas	Vienna Metrorail Pentagon,Northwest D.C.	Same as CommuteRide above *
ROUTE 7/DULLES TOLL ROAD CORRIDOR:						
Sterling**	2/2	10-ride commuter ticket for $35, or 1-way cash price = $5	80	Countryside,Sugarland,Sterling Park	Rosslyn,Pentagon,Downtown D.C.	(703) 437-9428

* Funded by Prince William County
** commuters have formed a non-profit corporation
to prov[illegible]uter [illegible]to me[illegible]

In Spring of 1990, RIBS will also expand by adding another bus--bringing the total number to three buses. The routing system will also be altered, with the lines coming together at a Timed Transfer Center in the Central Business District.

The Arlington Crystal City Trolley runs along a 2.4 mile circular course within Crystal City. There are 15 stops on the two bus route, including the Crystal City Metrorail station. Service is provided 6:30 A.M. to 6:30 P.M. Monday through Friday only. The fare is 25-cents. Ridership averages 800 each weekday. The service is provided by a private contractor using trolley-replica buses and a van with a wheelchair lift. Arlington County is purchasing two trolley-replica buses equipped with lifts and may take over the operation as well.

COMMUTER BUS SERVICES

There are a variety of commuter bus services that operate in the Northern Virginia Metropolitan area, ranging from a government subsidized service, to a non-profit corporation, to several privately owned and operated bus services. (See Figure 15).

CommuteRide is subsidized through Prince William County and is operated by a private transit management firm. CommuteRide operates in both the I-95 and I-66 corridors on a daily basis except weekends. It offers 26 trips along the I-95 corridor in the morning into the Pentagon, Crystal City and Downtown Washington, D.C., and provides 30 return trips in the evening. It also offers four morning trips, and five evening trips along the I-66 Corridor to the Vienna Metrorail, the Pentagon and Northwest Washington, D.C. A ten-ride ticket into Downtown Washington D.C. costs $28, which is equivalent to $5.60 for each roundtrip fare. Ridership on the system averages 950 each weekday in the I-95 corridor and 110 in the I-66 corridor.

The Sterling commuter bus service is a non-profit corporation serving Loudoun County. Officers elected by members of a homeowners association administer the program, and a private charter company provides the actual bus service. Two buses traverse the Route 7/Dulles Toll Road Corridor to Rosslyn, the Pentagon and Downtown Washington, D.C. every weekday morning, and two buses return in the evening. (The number of buses in service has depended upon demand.) A ten-ride ticket costs $35, which is equivalent to $7 per roundtrip fare. Ridership averages 80 each weekday.

Figure 16

NORTHERN VIRGINIA

TAXICAB OPERATORS AND NUMBER OF VEHICLES

CAB COMPANY	NUMBER OF VEHICLES
ALEXANDRIA	
Alexandria Diamond	132
Alexandria Yellow	166
All American	20
Columbus Cab Company	43
King Cab Company	38
VIP Cab Company	51
White Top Cab Company	111
ALEXANDRIA TOTAL	561
ARLINGTON	
Arlington Yellow Cab**	110
Blue Top Cab	120
Crown Cab	20
Friendly Cab Company	20
Hess Cab Company	31
Red Top Cab**	229
ARLINGTON TOTAL	530
FAIRFAX COUNTY	
Belvoir Cab	10
Fairfax Red Top Cab	70
Falls Church Yellow**	245
Reston/Herndon Transport	13
Springfield Yellow	59
FAIRFAX COUNTY TOTAL	397

** Subsidiary of Transportation Incorporated

SOURCE: Jurisdiction Hack Inspectors
August 1989

Five private bus companies operate in the I-95 Corridor. Greyhound offers a regular roundtrip fare between Fredericksburg and Downtown Washington, D.C. for $17.50. It also offers a commuter fare: a ten-ride ticket for $32.25, which is equivalent to $6.46 for one roundtrip ride. Aries Bus Company operates from Fredericksburg, Spotsylvania County and Stafford County into Fort Belvoir. The cost is $38 for 20 rides, which is equivalent to $3.80 for a roundtrip fare. Quick-Livick Inc. (formerly D&J), and the Lee bus service originate in Fredericksburg, and make several stops in Northern Virginia. Quick-Livick charges $52 every two weeks, which is equivalent to $5.20 for one roundtrip ticket, and Lee charges $8.50 for one roundtrip fare. White's operates between Stafford, Spotsylvania and Downtown Washington, D.C., and charges $15 for one roundtrip fare. Ridership figures are estimated in Figure 15.

TAXI SERVICES

The number of taxicabs operating in the five NVTC jurisdictions has increased from 1,278 in 1985 to 1,488 in 1989, while the number of taxicab firms has decreased from 22 in 1985 to 18 in 1989. Refer to Figure 16.

The Northern Virginia region includes several taxi programs that provide specialized services. These programs are often subsidized or initiated by the local or state government, but this is not always the case.

MetroTaxi, which serves the City of Alexandria, provides door-to-door service from both the Braddock Road and King Street Metrorail Stations to anywhere within the City limits. The City has contracted with several taxicab companies to form the MetroTaxi program, and while these taxis continue to provide metered service, fares are reduced by up to $2 from the metered fare when a valid Metrorail-to-bus transfer is presented. The difference in fare is refunded to the taxi drivers by the City. MetroTaxi was designed to supplement infrequent late night DASH and Metrobus service. Its hours of operation are from 8 P.M. to 12:30 A.M. Monday through Friday.

The Arlington Subway Shuttle Taxi (SST) serves the south portion of Metrobus Route 22B in Arlington. It complements Metrobus Route 22B by providing an enhanced service when ridership is too low to justify using a full-sized bus. The SST operates one taxi every 36 minutes from the Ballston Metrorail Station to Shirlington, Monday through Friday 9:30 P.M. to 12:27 A.M., and Saturdays 7:47 A.M. to 12:27 A.M. Patrons can catch the shuttle at the Metrorail station or at any bus stop along the southern portion of the Metrobus route. The taxis will deviate up to one-quarter mile from the bus route to deliver patrons to their doorstep. The fare is the same as Metrobus service; the base fare is 85 cents, and there is a 35 cent discount with a valid Metrorail or Metrobus transfer. Arlington County contracts with the Arlington Yellow Cab Company to provide this service. Taxicab companies often cooperate in projects such as these because it familiarizes the public with the idea of using taxicabs as an alternate mode of travel.

Figure 17

HIGH OCCUPANCY VEHICLE (HOV) HOURS AND USE

HOV Facility	Persons	of Travel	Restricted Hours	Vehicles	*Passengers
I-95 (inside diamond lane)	3	Northbound Southbound	6:00 a.m. - 9:00 a.m. 3:30 p.m. - 6:00 p.m.	3,959	14,940
I-395 (reversible lanes)	3	Northbound Southbound	6:00 a.m. - 9:00 a.m. 3:30 p.m. - 6:00 p.m.	6,066	35,456
I-66 (inside the Beltway)	3	Eastbound Westbound	6:30 a.m. - 9:00 a.m. 4:00 p.m. - 630 p.m.	1,725	5,729
Alexandria:					
Washington Streets	3 2	Northbound Southbound	7:00 a.m. - 9:00 a.m. 4:00 p.m. - 6:00 p.m.	141 223	508 673
Patrick Street/Route 1	2 2	Northbound Southbound	6:00 a.m. - 9:00 a.m. 3:00 p.m. - 7:00 p.m.	499	1038

Sources: Virginia Dept. of Transportation,
Alexandria Dept. of Transportation & Environmental Services,
Traffic Count, April, 1989.

*Includes buses

The City of Alexandria contracts with Diamond Transportation Services, which provides it with taxi and lift-equipped van service for DOT, the City's program for the transportation disabled. The Senior Taxi Service in Alexandria provides taxicab transportation for the elderly, charging only $1.25 for a one-way ride anywhere within the City. Blue Top Cab, located in Arlington, offers a 10% discount to all senior citizens and mobility-impaired individuals. The Multiple Sclerosis Society, which serves Loudoun, Prince William and Fauquier Counties, mails taxi vouchers for medical appointments to individuals who have been diagnosed as having multiple sclerosis. As demonstrated here, taxis can play an important role in the urban transportation formula.

HIGH OCCUPANCY VEHICLE FACILITIES

Northern Virginia has an extensive High Occupancy Vehicle (HOV) network operating throughout the region. The HOV lanes are currently used on I-95, I-395, I-66, and on Patrick and Washington Streets in the City of Alexandria. The use of HOV facilities is a proven way to quickly and efficiently move large numbers of people. This is particularly true since the occupancy requirements have been reduced from four to three people, except on Patrick St./Rt. 1 and southbound Washington Street in the City of Alexandria where only two individuals are required per car. See Figures 17 and 18 for HOV hours and use.

Figure 18

NORTHERN VIRGINIA COMMUTER TRENDS
TO THE
WASHINGTON, D.C. CORE

YEAR	TOTAL COMMUTERS	TRANSIT BUS & RAIL		OTHER BUS		AUTO							
						1-PERSON		2 & 3-PERSON		4 - 6 PERSON		VANS	
		PASSENGERS	% MARKET	PASSENGERS	% MARKET	PASSENGERS	% MARKET	PASSENGERS	% MARKET	PASSENGERS	% MARKET	PASSENGERS	% MARKET
1977	136,569	28,048	20.5%	5,500	4.0%	50,684	37.1%	35,232	25.8%	17,105	12.5%	N/A	
1978	140,218	26,181	18.7%	6,500	4.6%	50,427	36.0%	36,274	25.9%	20,836	14.9%	N/A	
1979	145,064	28,972	20.0%	4,545	3.1%	52,302	36.1%	38,573	26.6%	20,672	14.3%	N/A	
1980	151,412	32,859	21.7%	2,643	1.7%	51,395	33.9%	40,898	27.0%	23,617	15.6%	N/A	
1981	152,680	33,779	22.1%	2,902	1.9%	50,324	33.0%	40,681	26.6%	22,894	15.0%	2,100	1.4%
1983	164,321	29,919	18.2%	5,118	3.1%	61,909	37.7%	35,904	21.8%	22,953	14.0%	8,518	5.2%
1985	177,694	35,948	20.2%	4,460	2.5%	62,753	35.3%	41,978	23.6%	22,397	12.6%	10,158	5.7%
1987	174,959	39,293	22.5%	5,195	3.0%	67,824	38.8%	38,714	22.1%	15,722	9.0%	8,211	4.7%

N/A = Not available

Notes: 1) Core Area includes downtown Washington, Rosslyn, Pentagon and Crystal City.
2) One-way trips from Northern Virginia to the Core.

Sources: Metropolitan Washington Council of Governments, 1987 Metro Core Cordon Count of Vehicles and Passenger Volumes, November 1987, (as compiled by NVTC staff).

Given the advantages of HOV facilities, the Virginia Department of Transportation (VDOT) is undertaking a major expansion of the current HOV system. Along the I-95 corridor, two lanes are being constructed in the median that will accommodate car/van pools during the morning and evening rush hours from the current terminus of the permanent HOV lanes near Route 644 south to Woodbridge in Prince William County. The total length of this project is 19 miles, is expected to cost $207 million, and should be completed in 1994.

In addition to these improvements, NVTC has urged VDOT to open immediately for HOV use any widened Dulles Toll Road lanes. These lanes are currently being designed by VDOT.

I-95/I-395 Corridor

I-95. One HOV lane is in operation in both the north and southbound lanes between Route 1 and Route 644. The inside lane, marked by painted diamonds in the pavement, is the designated HOV lane during the peak period.

I-395. Two reversible lanes are reserved for HOV use in the morning and evening peak hours. These lanes, located in the median area, carry 32,908 passengers during the morning rush hours. The four conventional lanes, however, take nearly five times as many cars to move just 29,351 people in the same time span.

I-66 Corridor

Inside the Beltway, I-66 is devoted exclusively to HOV traffic during peak periods. VDOT is planning to construct an HOV diamond lane from the Beltway to Manassas along I-66 as a temporary measure. Ultimately, two reversible lanes are planned over this 21-mile section.

Dulles Airport Access Road/Toll Road Corridor

The only facility for HOV traffic in the Dulles Corridor is the Dulles Airport Access Road. Unlike the roads mentioned above, this road is restricted to bus and airport traffic.

The City of Alexandria

Within the City, HOV-lanes are found in each direction along Washington and Patrick streets. While the restrictions call for three occupants per car in the morning for northbound traffic along Washington Street, all other HOV requirements in the City call for two occupants. This policy is expected to be changed to HOV-2 throughout the City of Alexandria in the next few months.

Figure 19

PARK & RIDE LOTS IN NORTHERN VIRGINIA

			SPACES
Arlington County:	Ballston Commons Garage	Wilson Blvd. and Glebe Rd.	500
	East Falls Church Metrorail	North Sycamore & Washington Blvd.	391
	Four-Mile Run Parking Lot	Columbia Pike & Four Mile Run	30
	Washington-Lee Parking Lot	North Quincy & North 15th St.	300
Fairfax City:	Kutner Park	Germantown Rd. & Main St.	50
	Fairfax City Municipal Lot	Old Lee Highway & North St.	100
Fairfax County:	Burke Centre Park-&-Ride lot	Roberts Parkway north of Burke Centre Parkway	440
	Canterbury Woods Park	Wakefield Chapel Rd.	-
	Dunn Loring Metrorail	I-66 & Gallows Rd.	1,206
	Fair Lanes Bowling Center	13814 Lee Highway	125
	Fair Oaks Shopping Center	North of the Hecht's Store	150
	Greenbrier Shopping Center	Route 50 & Majestic Lane	140
	Huntington Metrorail Station	Huntington Ave. (btw Telegraph & Richmond Hwy)	1,532
	Lorton Park-&-Ride	S. of Lorton Rd., across from AMTRAK	30
	Kottoway Park	Courthouse Rd. near Kutley St.	220
	Reston Park-&-Ride Lot	Sunset Hills Rd. & Wiehle Ave.	330
	Rolling Valley Park-&-Ride Lot	Old Keene Mill Rd. east of Shiplett Blvd.	340
	South Run District Park	Pohick Rd. & Lee Chapel Rd.	-
	Springfield Cenema	7039 Old Keene Mill Rd.	180
	Springfield Mall	Spring Mall Rd. at Frontier Drive	400
	Springfield Plaza	Bland St. (btw Old Keene Mill & Amherst)	133
	Springfield United Methodist	7047 Old Keene Mill Rd.	101
	Vienna Metrorail	I-66 & Kutley St.	2,189
	Wakefield Chapel Rec. Ctr.	Queensberry Dr.	-
	West Falls Church Metrorail	Rt. 7 & Haycock	979
	Zayre's - Annandale	6457 Edsall Rd. (Edsall Rd. & I-395)	50
Prince William County:	Horner Rd.	Horner Rd. (Route 629)	375
	Lake Ridge	Route 640 & Harbor Dr.	200
	Minnerville Rd.	Minneville Rd. (Route 640)	555
	Gordon Blvd.	Gordon Blvd. (Route 123)	180
	Dumfries Rd.	Dumfries Rd. (Route 234)	97
	Potomac Mills	Potomac Mills Shopping Ctr.	200
	Prince William Sq.	Smoketown Rd.	45
	NVCC Commuter Lot	Manassas Campus (Route 234 & I-66)	226
	Hillendale	Hillendale & Route 784	200
	Manassas Mall	Route 234 & Sudley Rd.	200
Spotsylvania County:	Fredericksburg	Route 3 & Route 95 Old Salem Church	493
Stafford County:	Falmouth	Route 17 & Route 95 (west of Falmouth)	454
	Aquia	ROute 610 & Route 95	316
	Stafford	Route 630 & Route 95	529

HERO Program

To combat the growing number of violators and maintain the integrity of the HOV lanes, VDOT launched the HERO Program on January 1, 1989. The program established a toll-free number where violators could be reported by vehicle license plate, car type, and the place and time of the violation. With the first notice, HOV information is sent to the violator. Later they are placed on a watch list. Understandably, the number of violators has dropped dramatically. In January 1989, a total of 11,290 tickets were issued. By June, the number had dropped to 5,305.

PARK-AND-RIDE LOTS

Though parking is available at several Metrorail stations in Northern Virginia, these lots are usually overflowing by early morning. To help meet this demand, park-and-ride lots have been set up at strategic locations throughout the region. (Please see Figure 19 for the locations and capacity levels). Many of these lots are staging areas for car and van pools, as well as being served by feeder buses.

Fairfax County has started to aggressively expand its park-and-ride network. Listed below are some of the major planned and completed projects in the County:

* Dunn Loring Metrorail Station: completed the addition of 110 new spaces; total spaces are 1206.

* Huntington Metrorail Station: 750 spaces are planned by the end of 1990 bringing the total to 2,282.

* Vienna Metrorail Station: 1,300 new spaces will be added by Fall, 1990 resulting in a total of 3,489.

* West Falls Church Metrorail Station: 160 parking spaces have been added.

* Franconia-Springfield Metrorail Station: Fairfax County has proposed a parking structure which will house approximately 1500 cars in 1993.

* Centreville: a proposed 500 space lot at the intersection of Route 29 and Stone Road. The expected completion date is set for Spring, 1992.

* Centreville: the Sully Station area (on Stone Croft Blvd., at Westfields Blvd.) will have a lot with 140 spaces; completion date is expected to be in Spring, 1990.

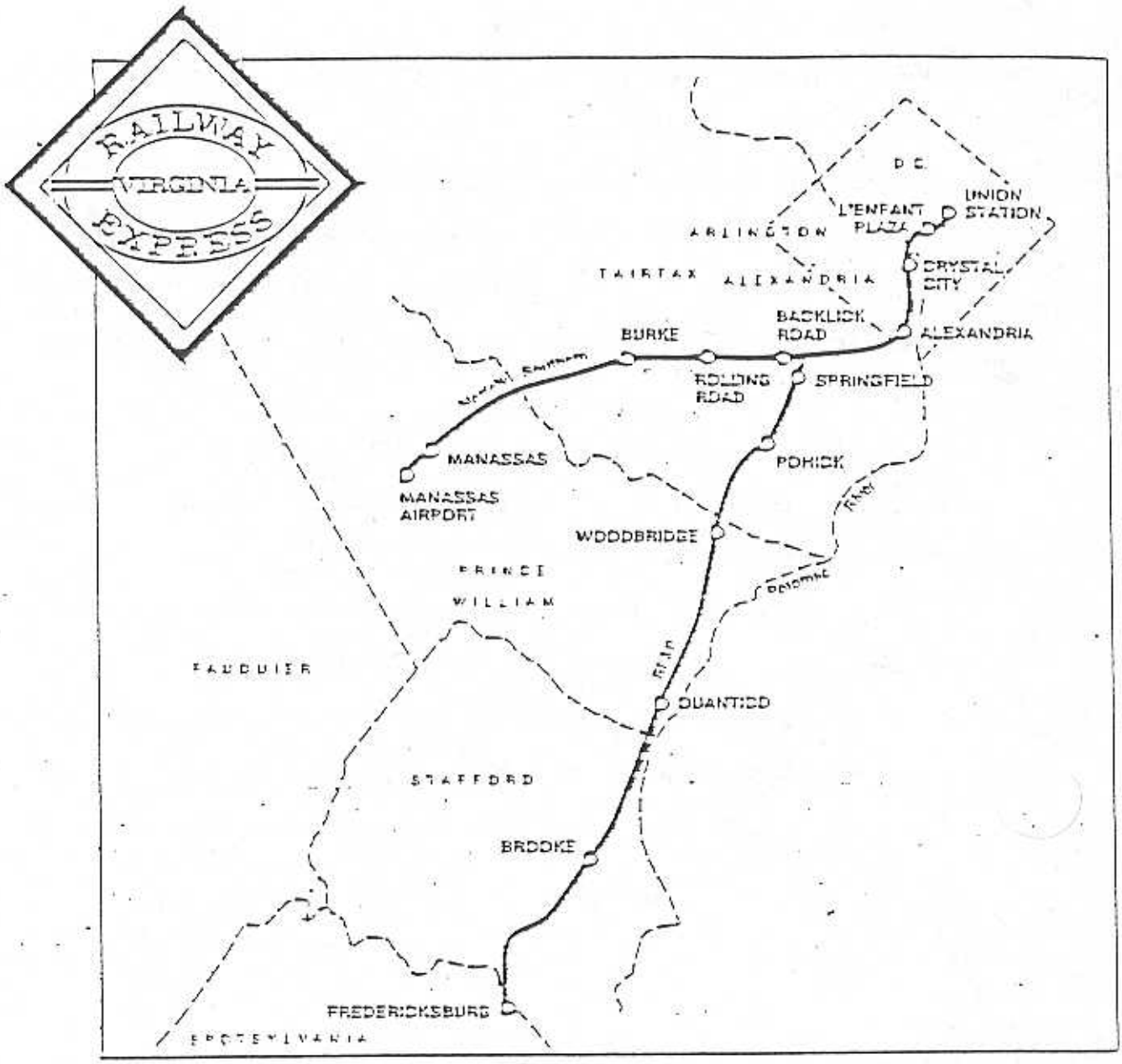
* Reston: a proposed 350 park-and-ride lot at Sunset Hill Road and Business Center Drive. Completion is set for Spring, 1992.

* Reston: a proposed 350 space lot at the Money's Corner section is anticipated to be completed by Spring, 1992.

* Rolling Valley Park-and-Ride Lot: a proposed 300 space expansion by Spring, 1992.

Figure 20

ROUTE MAP OF THE VIRGINIA RAILWAY EXPRESS



VIRGINIA RAILWAY EXPRESS COMMUTER RAIL SERVICE

Since 1985, NVTC has worked actively to initiate commuter rail service along two routes. Figure 20 shows the proposed stations on the Southern Railway from Manassas and on the Richmond, Fredericksburg and Potomac Railroad from Fredericksburg. Service into the District of Columbia would be on Conrail's tracks. AMTRAK would operate the service under contract to NVTC and its partner the Potomac and Rappahannock Transportation Commission.

The project makes good sense, but its implementation has been plagued with roadblocks. Appendix VII traces its frustrating history.

Currently agreements in concept exist with all railroads except Conrail. Legislation sponsored by Senator Robb and Representative Boucher would limit the liability of Conrail to the amount of the Commissions' insurance--at least $200 million. At the same time this legislation is pending in Congress, the VRE Operations Board has urged the two Commissions to purchase railcars and locomotives by initiating the planned debt issue. A contingency plan would provide service terminating at Crystal City if Conrail will not agree to permit access to Union Station in the District of Columbia. Passengers wishing to transfer to Metrorail to complete trips across the Potomac would receive a $1 discount in their VRE fares. Forecasts call for almost 3800 daily riders to start for full service, and about 2800 if the contingency plan is needed.

TRANSPORTATION SERVICES FOR SENIOR CITIZENS AND THE MOBILITY-IMPAIRED

Many types of transportation services are available for the elderly and mobility-impaired in Northern Virginia. Metrobus and Metrorail operate programs throughout the region, and each jurisdiction in Northern Virginia has its own unique variety of services.

Metrobus has 371 lift-equipped buses along 300 fixed routes. Currently 22% of the fleet is lift-equipped, and Metro plans to increase this number to 50% by 2005. Mobility-impaired individuals who ride routes not normally serviced by lift-equipped buses may utilize the Metro On-Call service. On-Call enables an individual to request a lift-equipped bus on a specific route at a specified time. Reservation must made by 3:00 the previous afternoon. The service is available seven days a week, including holidays, and there is no additional charge. Metrorail stations are accessible via elevator, and most Metrorail stations are serviced by at least one Metrobus line. There are currently 129 station elevators in the Metrorail system.

Fare Wheels is a government-subsidized taxi/van service for the mobility-impaired that operates in Arlington County, Falls Church and the City of Fairfax. Each jurisdiction has individualized eligibility criteria, restrictions and fees, but each requires an application and proof of residency. To utilize Fare Wheels in Falls Church you must be 60 years of age or older and unable to use public transportation. Income

guidelines are flexible, and the service is free of charge. Recipients, once certified, are given $20 worth of coupons each month to reimburse taxi companies participating in the program. If an individual needs additional coupons during the month, they are available upon request. Taxis may be used for any purpose.

In Arlington County, Fare Wheels is only open to elderly and disabled individuals who are also eligible for other social service programs. Certified recipients are given $60 worth of coupons every two months at no charge. Taxis may be used only for medical appointments. Lift-equipped vans are available.

In the City of Fairfax residents who are unable to ride the CUE system are eligible to apply for Fare Wheels. There is no income eligibility requirement. Certified recipients pay $6 for $20 worth of coupons for taxi service, or $6 for $90 worth of coupons for lift-equipped van service. Recipients may only use this service within the boundaries of the CUE bus system.

The City of Alexandria's local bus system, DASH, is not equipped with wheelchair lifts. The City does, however, operate DOT - a taxicab and lift-equipped van service for the mobility-impaired. During fiscal year 1989, DOT completed 6,686 van trips, and between 13,000 and 15,000 taxicab trips. The system does not have a residency requirement, but individuals must complete an application, which includes a section for the applicant's

physician to complete. Office hours are from 8-5 weekdays; cab and van service is available from 6 A.M. to 11:30 P.M. Monday-Friday, 6:30 A.M. to 11:45 P.M. on Saturdays, and from 8 A.M. to 9:30 P.M. on Sundays. The fare is $1.25 for a one-way ride anywhere within the City of Alexandria.

The Senior Taxi Service in Alexandria also provides taxicab service for senior citizens. Users must be at least 60 years of age, and trips may only be made for shopping and medical visits. Transportation is provided between 7:30 A.M. and 3:30 P.M., and the fare is $1.25 for a one-way ride within the City of Alexandria.

In addition to Fare Wheels, the Arlington County government subsidizes a lift-equipped van to follow the Arlington Trolley throughout its route in the Crystal City area. The County plans to replace the van with two lift-equipped trolleys by the end of the year. The Trolley is in operation from 6:30 A.M. to 6:30 P.M.

Arlington County offers a number of other transportation services for the elderly, the mobility-impaired, individuals who suffer from specific illnesses such as cancer, and for others who are in a state of emergency.

The Fairfax Connector operates some lift-equipped buses in Fairfax County. These buses are utilized on regular routes and the County also provides an On-Call system.

FASTRAN is operated by the Fairfax County Office of Human Services. It is a bus service for certified income-eligible, transportation disadvantaged individuals. Reservations for the service must be made in advance. An application is required, but individuals are encouraged to call to discuss individual backgrounds and needs. Currently the service is free. FASTRAN also operates on a limited basis in Falls Church.

Diamond Transportation Services operates region wide and is headquartered in Alexandria. It provides taxicabs and lift-equipped ramp vans upon demand. Reservations must be made by 5 P.M. a day in advance, and the average fare is $22.50 each way. Diamond Transportation Services has contracts with several local governmental agencies to provide taxicab services for the disabled. This includes Alexandria's Office of Transit Services, which administers the DOT program.

Appendix V contains a complete listing of services.

Figure 21

NORTHERN VIRGINIA'S CONSENSUS TRANSPORTATION
COORDINATION AGENDA FOR CALENDAR YEAR 1990

PLANNING

- Complete local adoption of Northern Virginia Transportation Plan.
- Continue technical refinements to the Plan.
- Establish process for advising local governments of consistency of their plans with the regional plan.
- Continue upgrading of VDOT's Northern Virginia District Office.

FINANCING

- Complete study of financial resources for transportation in Northern Virginia and implement findings.
- Initiate VRE project by issuing debt and purchasing railcars. Trains would run in late 1991.

MARKETING

- Expand marketing efforts by broadening NVTC's Connections campaign to include more public/private transit stores.

INSTITUTIONS

- Complete merger of NVTC and LCTC.

SUMMARY AND CONCLUSIONS

While strong efforts continue in Northern Virginia to coordinate diverse transit and ridesharing services, much remains to be done. Figure 21 provides an overview of those coordination activities that appear to have widespread support and that should be accomplished on a cooperative basis during the next calendar year.

Looking back to NVTC's 1988 Transit Service Coordination Plan, several problem areas were identified, including additional park-and-ride lots, indemnification, better information and amenities for transit users, and an absence of strategic planning. Substantial progress has been made in each of these areas. For example, Fairfax County has identified several new sites for park-and-ride lots and will soon issue bonds for new structured parking at Huntington and Vienna Metrorail stations. NVTC's Self-Insurance Trust is being established within the Commonwealth's Division of Risk Management to provide $200 million of liability protection for the VRE commuter rail project. The Ballston Transit Store and NVTC's new Connections brochures and maps, together with WMATA's experiments with Automatic Teller Machines and U.S. Postal Service vending machines have provided easier access to transit fare media. Northern Virginia's Transportation Plan, by specifying major new transit and HOV systems to be tied together at Transportation Centers with timed-transfers, has made giant strides toward establishing mode split targets that would provide strategic objectives for public transit.

Despite sincere and diligent efforts to improve transportation through better coordination as described in this report, the enormous problem of traffic congestion is growing worse. Consequently, more must be accomplished to improve planning, utilize innovative financing techniques, target marketing more carefully, and stream-line institutions. It is hoped that the proposals included in this annual report will help guide the region in this vital endeavor through the next year.

APPENDIX I

PUBLIC TRANSIT AND RIDESHARING AGENCIES

PUBLIC TRANSIT AND RIDESHARING AGENCIES

Acronym	Agency	Role
APTA	American Public Transit Association	National trade association headquartered in Washington, D.C.
CTB	Commonwealth Transportation Board	Board appointed by Virginia's Governor to direct the Virginia Department of Transportation.
CUE	City of Fairfax's City-University-Energy Saver Bus System	Local bus system.
DASH	City of Alexandria's Bus System	Local bus system.
FAIRFAX CONNECTOR	Fairfax County's Bus System	Local bus system.
LCTC	Loudoun County Transportation Commission	District includes Loudoun County.
MWAA	Metropolitan Washington Airports Authority	Controls Dulles and National Airports and the Dulles Access Road.
MWCOG/TPB	Metropolitan Washington Council of Governments/Transportation Planning Board	District includes suburban Maryland, D.C., and Northern Virginia. Maintains regional ridesharing database.
NVPDC	Northern Virginia Planning District Commission	District includes MWCOG members of Northern Virginia. Reviews Federal transit grant proposals.
NVTC	Northern Virginia Transportation Commission	District includes Arlington and Fairfax Counties and the Cities of Alexandria, Fairfax and Falls Church.
PRTC	Potomac and Rappahannock Transportation Commission	District includes Prince William and Stafford Counties and the Cities of Manassas and Manassas Park.
RIBS	Reston Internal Bus System	Local bus system.
RIDE-ON	Montgomery County, Maryland's Bus System	Local bus system.

Acronym	Agency	Role
SCC	Virginia State Corporation Commission	Regulates certain transportation within Virginia.
UMTA	Urban Mass Transportation Administration	Part of the U.S. Department of Transportation that provides transit assistance.
VAPTO	Virginia Association of Public Transit Officials	Trade association for Virginia's transit systems.
VDOT	Virginia Department of Transportation	Headquartered in Richmond, its Northern Virginia District Office is located in the City of Fairfax.
VRE	Virginia Railway Express	NVTC/PRTC's commuter rail project, governed by the joint Operations Board.
WMATA	Washington Metropolitan Area Transit Authority (Metro)	An interstate compact established this regional authority that operates Metrorail and Metrobus service.
WMATC	Washington Metropolitan Area Transit Commission	Also established by interstate compact, it regulates certain transportation within the transit zone.
WSTC	Washington Suburban Transit Commission	NVTC's Maryland counter-part includes Montgomery and Prince George's Counties and Maryland DOT.

APPENDIX II

NORTHERN VIRGINIA TRANSPORTATION PLAN
CONTINUING PROCESS

June 27, 1989

NORTHERN VIRGINIA SUBREGIONAL TRANSPORTATION PLAN

CONTINUING PROCESS

Work Scope
01/89 - 06/91

TASK I Review and Endorsement of Recommended Base Plan

01/89 - 06/89

A. Complete detailed report on 2010 Recommended Base Plan.

B. Public hearings by local jurisdictions.

C. Endorsement of Recommended Base Plan (in concept) - by Local Jurisdictions, COG Transportation Planning Board, NVTC, NVPDC, The Potomac Rappahanock Commission and the Loudoun County Transportation District.

TASK II Refinement of Recommended Plan *

A. <u>Highway Element</u>

01/89 - 06/89 1. Review and verify technical data used in the analysis, including a detailed review of link-volume data on major routes and final revisions to Round IV forecast data.

01/89 - 06/89 2. Prioritize, based on results of analysis in Phase I, major corridors for detailed study (Sub-Area analysis). On June 16, 1989, the Policy Committee directed that the I-95 Corridor be the first priority for detailed technical analysis, and that institution of transit alternatives receive priority in on-going project planning.

07/89 - 12/90 3. Implement studies using System II capabilities. Detailed study should address:

a) Impacts on surrounding minor arterials and collectors.
b) Potential bottlenecks/conflicts created by varying cross-sections.
c) Environmental impacts at system level.

* The work tasks and elements contained in this work scope will be reviewed every six (6) months by both the Technical and Policy Committees. Amendments will be made as necessary.

d) Identification of alternative corridors and/or alternative modes and strategies in areas where 4 or more additional lanes or a total of 6 or more lanes are needed. (Ref. Objective 5, Goal I)
e) Feasibility of implementation.
f) Updating of project costs.
g) Comparison of investment levels required with effectiveness of projects.

07/90 - 12/90 4. Technical Committee makes recommendations to Policy Committee.

B. Transit: Rail, Bus and HOV *

07/89 - 12/89 1. Identify and evaluate operational aspects of recommended timed-transfer system and develop associated costs; determine potential locations and estimate associated capital costs.

07/89 - 12/89 2. Identify commuter lot locations and develop associated costs.

07/89 - 12/90 3. Based on results of the analysis in Phase I, examine in detail those corridors recommended for HOV and rail implementation. Also, analyze further the potential impacts of HOV/Transit use on: Fairfax County Parkway and Route 28; in the I-66 Corridor extending into Fauquier County; in the Dulles Corridor between McLean and the Airport; and between the Airport and Leesburg; and in the I-95 corridor, including Commuter Rail and Metro Rail extension to Lorton. Detailed study should address:

a) Impacts on surrounding road network.
b) Type of interface with existing system (e.g. direct connections at key intersections).

* In Corridors where both highway and transit alternatives appear viable, these will be analyzed as components of one (1) Corridor Study. Transit includes both rail and bus.

c) Environmental impacts at system level.
d) Feasibility of implementation.
e) Updating of project costs.
f) Comparison of investment levels required with effectiveness of project.
g) Identification of land to be obtained for future rail stations/commuter parking

4. Make model runs to assess effectiveness.

07/90 - 12/90 5. Incorporate results of Sub-Area analysis.

07/90 - 12/90 6. Technical Committee makes recommendations to Policy Committee.

C. Incorporation of Findings/Recommendations of Major Ongoing Studies into Recommended Plan (Washington Bypass, Capital Beltway, Dulles Corridor - including Dulles Airport Access Road Corridor Transit Alternatives Study); and, incorporation of any new area plans as they are adopted

01/89 - 12/89 1. Review study recommendations and generally assess their potential impacts on the 2010 Recommended Plan network.

01/90 - 06/90 2. Assimilate data from Studies into 2010 Recommended Plan data base.

01/90 - 06/90 3. Make any necessary model runs.

01/90 - 06/90 4. Make recommendations to Policy Committee.

01/90 - 06/90 5. Adjust 2010 Recommended Plan as necessary.

D. Expansion of Recommended Plan Elements to Include Other Modes

07/89 - 12/89 1. Evaluate present and planned pedestrian and bicycle facilities and services, and their interface with other transportation modes; determine need for additional facilities.

01/90 - 06/90 2. Develop and incorporate policies and guidelines addressing each of these components.

01/90 - 06/90	3.	Review recent studies addressing potential water-based transportation alternatives and determine their applicability to the Recommended Plan network.
01/90 - 06/90	4.	Review Airport Master Plans to improve interface with other modes.
01/90 - 06/90	5.	Technical Committee makes recommendations to Policy Committee.

E. Development of TSM Element

01/89 - 06/89	1.	Review, evaluate and prioritize recommendations of TSM subcommittee as formulated in Phase I.
07/89 - 12/89	2.	Research additional systems and demand management techniques currently being utilized in other areas.
07/89 - 12/89	3.	Determine appropriate mechanisms for implementing desired programs.
01/90 - 06/90	4.	Develop Recommendations and refer to Policy Committee for consideration.

F. Study of Better Methods for Coordinating Local Land-Use and Regional Transportation Planning Functions (Ref. Objectives 4 & 5, Goal III)

07/89 - 03/90	1.	Review existing statutes, ordinances, and/or procedures impacting transportation and land-use planning and their coordination; identify changes needed.
07/89 - 03/90	2.	Research statutes, ordinances, procedures and institutions for coordinating land-use and transportation in other parts of the country;
07/89 - 03/90	3.	Develop a set of recommended demand-management strategies for the region, particularly focusing on the destination point.
01/90 - 06/90	4.	Develop an overall set of recommendations to be submitted to Policy Committee for consideration and possible referral to local jurisdictions and/or appropriate agencies.

TASK III **Development and Adoption of Detailed Plan**

01/91 - 06/91

A. Based on preceding work, revise Base Plan as indicated.

B. Prioritize plan recommendations.

C. Develop Phasing Schedule for plan implementation.

D. Establish regular review schedule and procedures for keeping Adopted Plan updated, and for making amendments to the Plan.

E. Prepare Draft Report.

F. Public Hearings by local jurisdictions and appropriate Boards.

G. Prepare Final Report.

H. Adoption of Detailed Plan by Local Jurisdictions, COG Transportation Planning Board, NVTC, NVPDC, The Potomac Rappahanock Commission and the Loudoun County Transportation District.

I. Incorporate Recommended Plan into regional COG/TPB Plan.

TASK IV Updating of Adopted Plan

07/91 - Review and update Adopted Plan according to schedule and procedures established in Task III-D.

Addendum on Land-Use Issues

Numerous comments received on the Draft Continuing Process referred to the need to perform an analysis of the impact of variations in land-use densities on the transportation system. VDOT considers any evaluation of land-use alternatives to be within the purview of the local jurisdictions; however, VDOT would be willing to assist in providing some technical support for such an effort if requested to do so by the local jurisdictions.

APPENDIX III

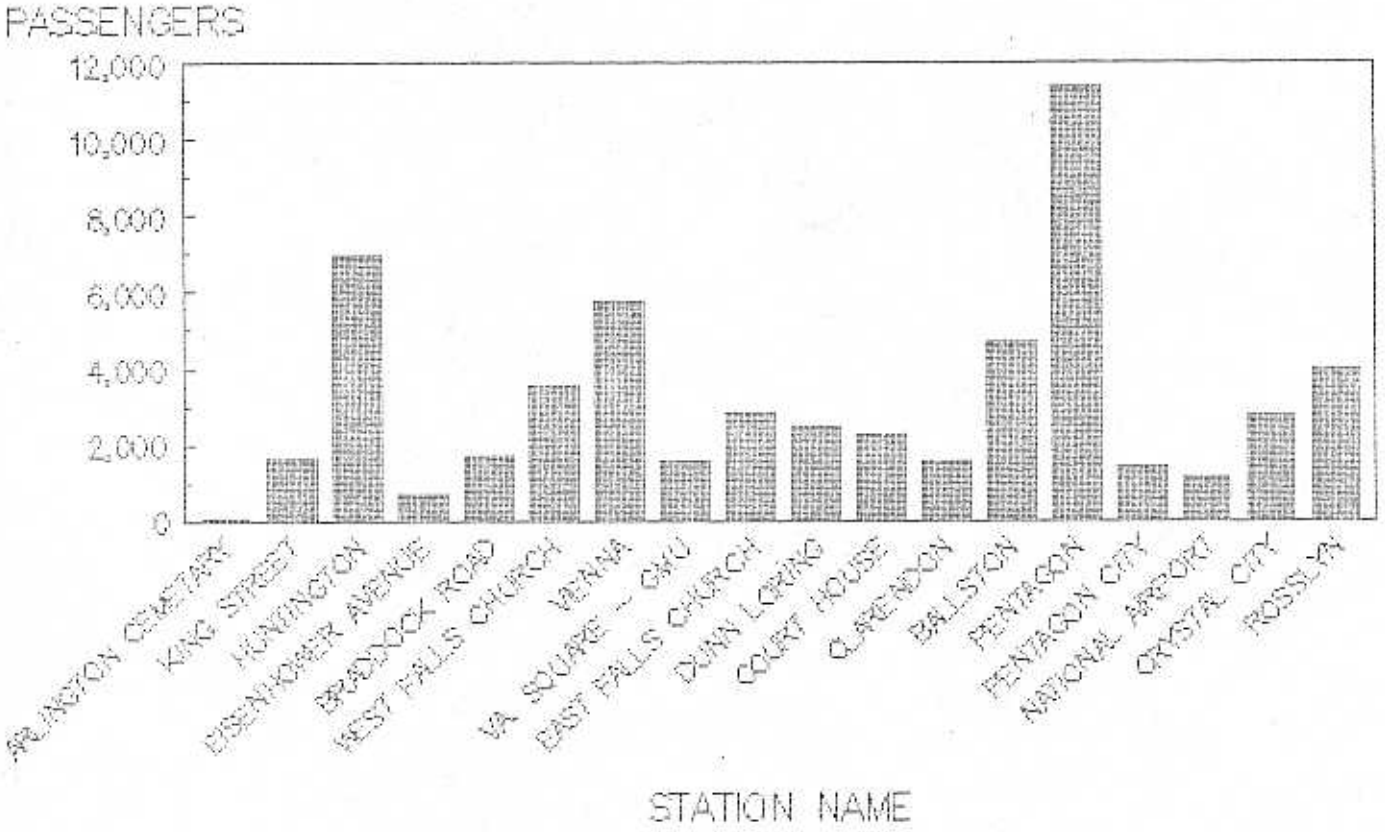
TRANSIT RIDERSHIP AND ROUTE MAPS BY SYSTEM

NORTHERN VIRGINIA METRORAIL BOARDINGS
BY TIME PERIOD

STATION NAME	LINE	AM PEAK	MID DAY	PM PEAK	EVENING	DAILY TOTAL
ARLINGTON CEMETARY	BLUE	67	649	491	135	1,342
KING STREET	YELLOW	1,586	920	936	503	3,945
HUNTINGTON	YELLOW	6,966	1,104	582	327	8,979
EISENHOWER AVENUE	YELLOW	674	440	686	135	1,935
BRADDOCK ROAD	YELLOW	1,669	472	529	206	2,876
WEST FALLS CHURCH	ORANGE	3,571	682	646	330	5,229
VIENNA	ORANGE	5,729	1,023	552	333	7,637
VA. SQUARE - GMU	ORANGE	1,512	488	325	129	2,454
EAST FALLS CHURCH	ORANGE	2,842	600	411	162	4,015
DUNN LORING	ORANGE	2,477	569	525	199	3,770
COURT HOUSE	ORANGE	2,263	1,100	1,224	390	4,977
CLARENDON	ORANGE	1,516	622	470	210	2,818
BALLSTON	ORANGE	4,655	1,683	1,833	731	8,902
PENTAGON	BLUE & YELLOW	11,357	4,049	4,684	772	20,862
PENTAGON CITY	BLUE & YELLOW	1,409	569	920	193	3,091
NATIONAL AIRPORT	BLUE & YELLOW	1,092	1,566	1,273	1,255	5,186
CRYSTAL CITY	BLUE & YELLOW	2,781	3,164	6,381	1,307	13,633
ROSSLYN	BLUE & ORANGE	3,980	3,900	5,084	1,651	14,615

SOURCE: WMATA SPRING 1989 BOARDING COUNTS

METRORAIL AM PEAK PERIOD
NORTHERN VIRGINIA BOARDINGS

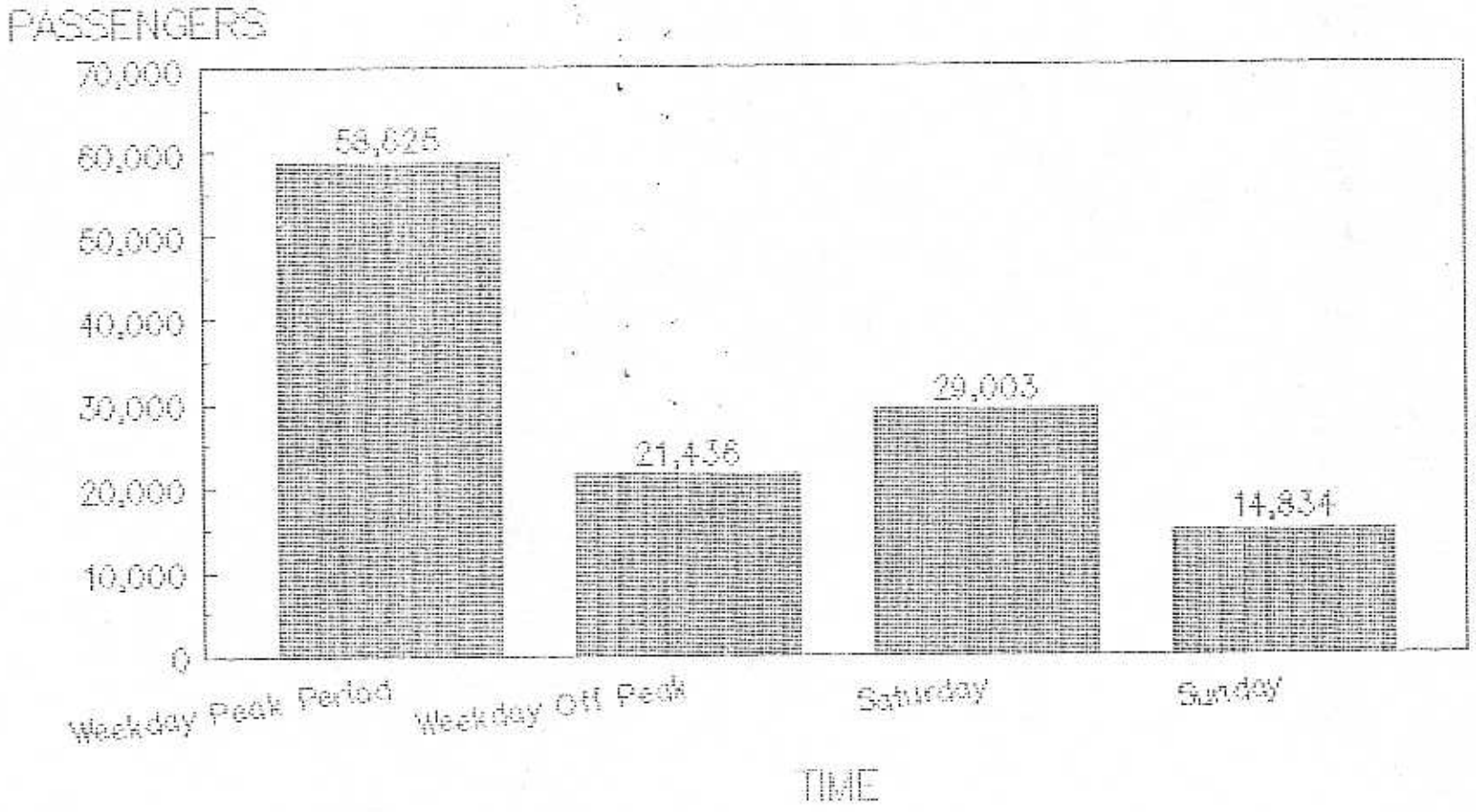


SOURCE: WMATA SPRING 1989 BOARDING COUNTS

NORTHERN VIRGINIA METROBUS ROUTES

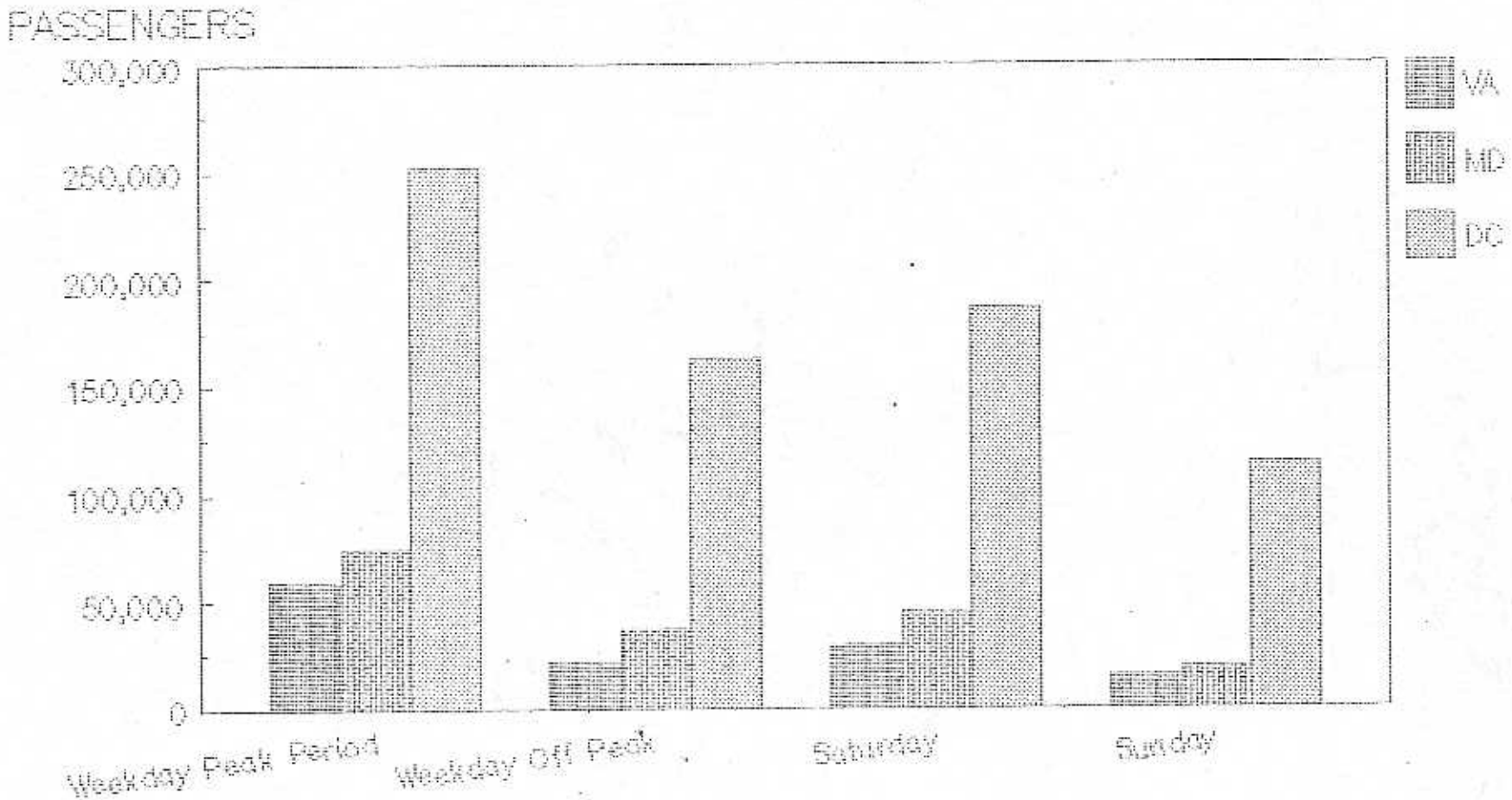
LINE	Weekday RUSH HOURS	Weekday OFF-PEAK	SATURDAY	SUNDAY	Weekday TOTAL
1 - WILSON BLVD.	1,576	964	1,307	820	2,540
2 - WASHINGTON BLV.	1,801	1,053	1,693	714	2,854
2 - VIENNA	646				646
3 - LEE HIGHWAY	1,921	879	1,107	593	2,800
3 - WEST PARK	342				342
4 - ARLINGTON BLVD	1,434	626	911	609	2,060
4 - CULMORE	170				170
5 - RESTON NORTH	951				951
5 - RESTON SOUTH	1,124	71			1,195
5 - RESTON-PENTAGON	295				295
5 - HERNDON-TY.COR.	1,244	680	1,339	332	1,924
5 - DULLES CORNER	37				37
5 - HERNDON EXPRESS	376				376
6 - So. FAIRLINGTON	1,245	384	312	187	1,629
7 - LINCOLNIA	4,223	1,254	1,415	561	5,477
8 - SEMINARY VALLEY	1,957				1,957
9 - FT. BELVOIR US1	2,371	1,921	3,467	2,014	4,292
10 - ARLANDRIA	3,174	2,661	3,857	1,919	5,835
11 - MOUNT VERNON	666	229	392	304	895
12 - CENTREVILLE	209				209
13 - PENTAGON-MALL	1,119	287	563	476	1,406
14 - EISENHOWER AVE.	226	122	106	33	348
15 - CHAIN BRIDGE RD.	691	215			906
16 - COLUMBIA PIKE	3,905	2,010	2,910	1,743	5,915
16L COLUMBIA PK. EXP.	556				556
16UX COL.PIKE 4MIRUN	1,876	102			1,978
17 - KING's PARK	732	490			1,222
17 - KING's PK.EXPRS	2,049				2,049
18 - SPRINGFIELD	1,105	571			1,676
18 - ORANGE HUNT	2,444	203			2,647
20 - CHANTILLY US 50	609				609
21 - LANDMARK EXPS	1,744				1,744
22 - WALKER CHAPEL	731	302			1,033
23 - GLEBE ROAD	2,329	1.301	2,286	1,133	3,630
24E S.COURT HOUSE RD	1,135	324	253		1,459
24T WESTMORELAND ST.	266				266
25 - CARLIN SPRINGS	899	612	569		1,511
26 - GUINEA ROAD	294				294
26 - GALLOWS ROAD	899	442	512		1,341
28 - LEESBURG PIKE	1,875	1,534	2,553	1,288	3,409
28 - SKYLINE EXPRESS	755				755
29 - LITL RIVER TRNPK	1,972	173			2,145
29 - DUKE STREET-236	1,963	1,323	1,892	718	3,286
38 - KEY BRIDGE	929	721	1,232	777	1,650
P13 EASTOVER-PENT'GN	190				190
TOTAL	57,055	21,454	28,676	14,221	78,509

VIRGINIA METROBUS RIDERSHIP
WEEKDAYS, SATURDAY & SUNDAY



Source: WMATA, Office of Planning
"Metrobus Service Productivity Report for Schedules in Effect 6/25/89"

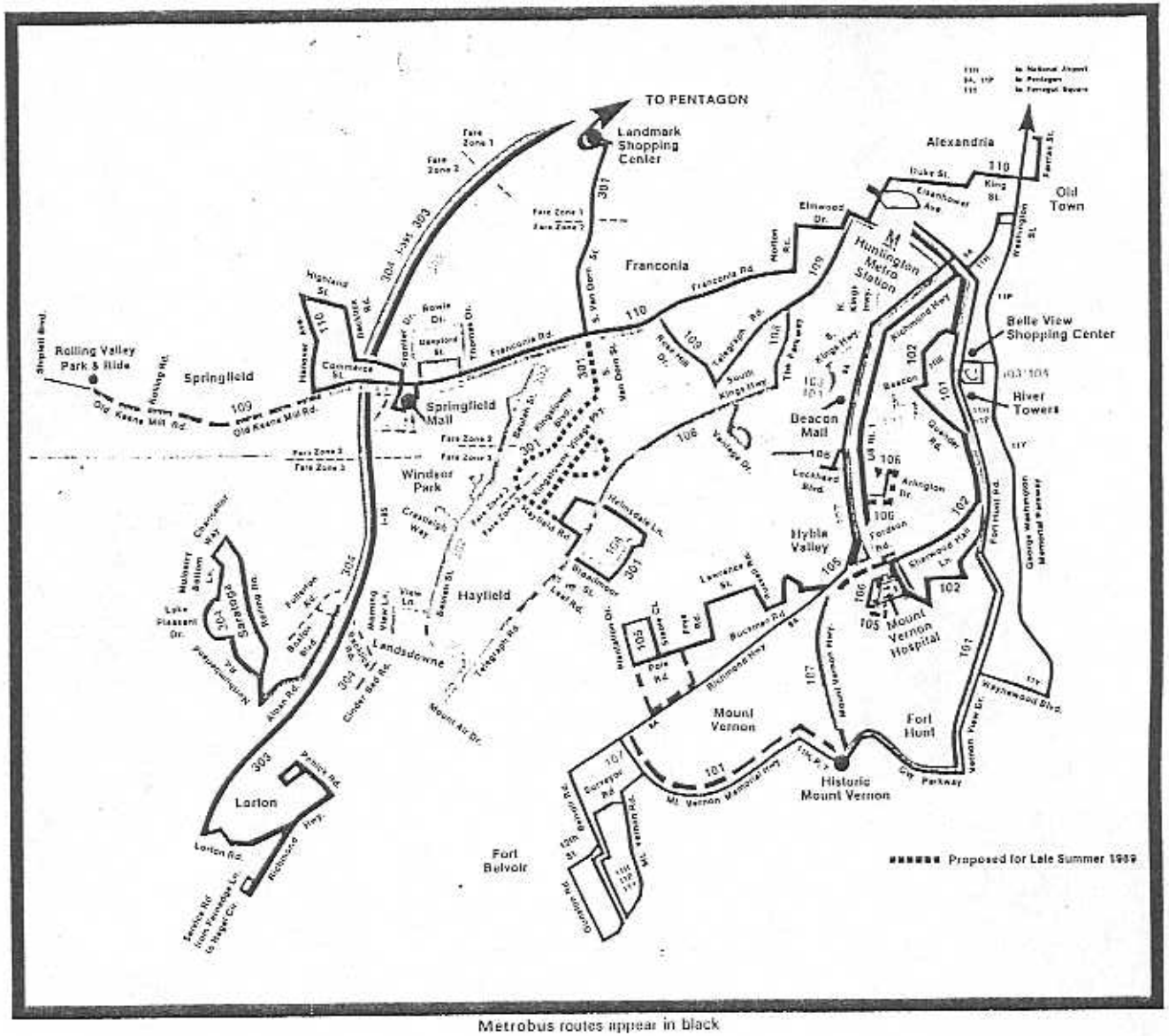
METROBUS RIDERSHIP
WEEKDAYS, SATURDAY & SUNDAY



Source: WMATA, Office of Planning
For the 6 month period ending 6/25/89

FairFax Connector SYSTEM MAP

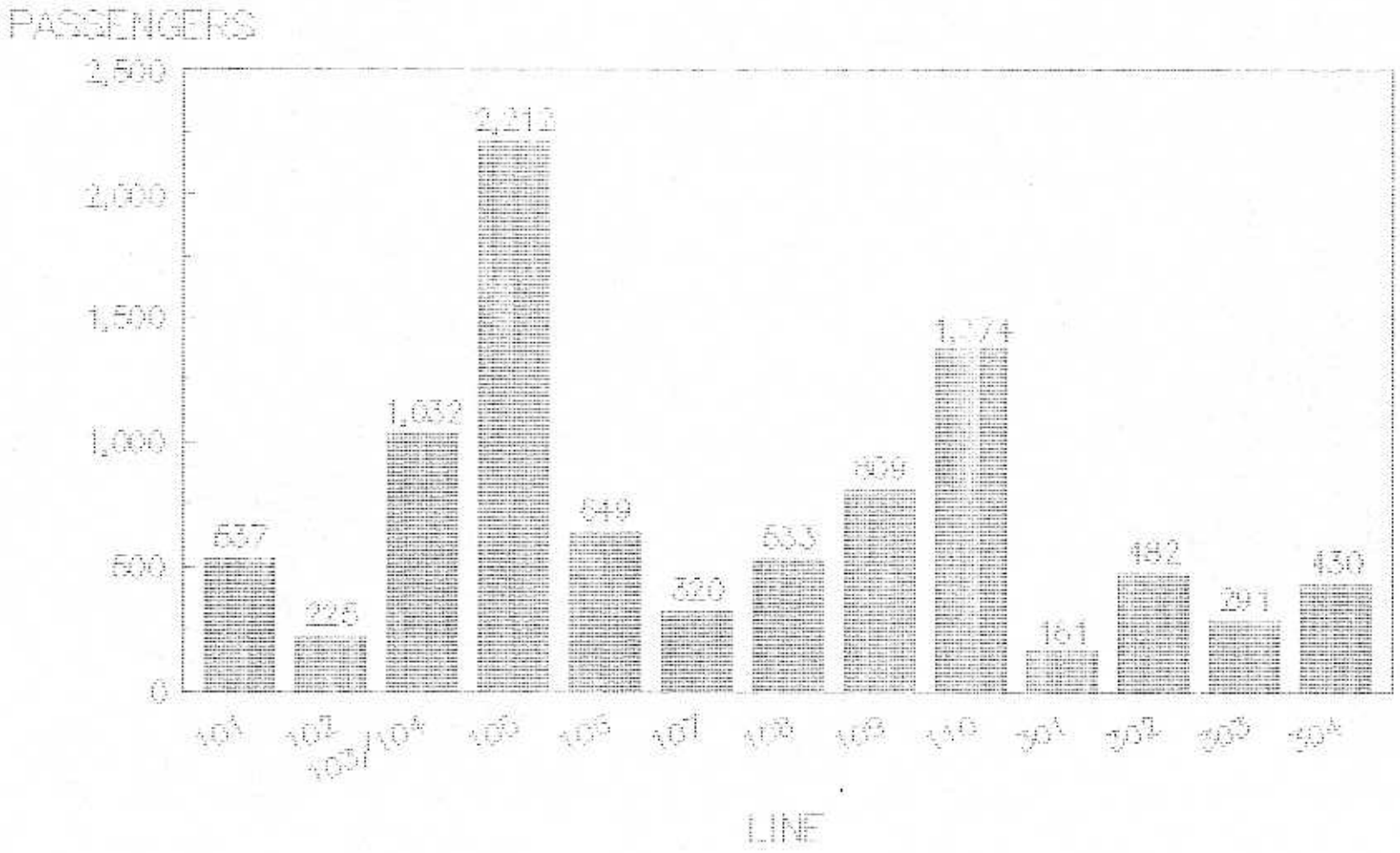
ROUTE NUMBER	AREA OF SERVICE
101	Mt. Vernon to Huntington via Fort Hunt Road
102	Hollin Hall to Huntington via Sherwood Hall Lane and Quander Road
103/ 104	Bucknell Manor to Huntington Loop
105	Woodlawn to Huntington via Richmond Highway
106	Mount Vernon Hospital to Huntington via Mt. Vernon Square and Richmond Highway
107	Mt. Vernon to Huntington via Richmond Highway
108	Hayfield to Huntington via Virginia Hills
109	Springfield Mall to Huntington via Rose Hill Drive
110	Springfield to Alexandria via Huntington and Franconia Road
301	Hayfield to Pentagon via Kingstowne
302	Beulah Street to Pentagon via Franconia Road
303	Lorton to Pentagon
304	Saratoga to Pentagon



Metrobus routes appear in black

FAIRFAX COUNTY'S "FAIRFAX CONNECTOR"

FISCAL YEAR 1999 AVERAGE DAILY BOARDINGS



Source: Fairfax County Office of Transportation

DASH TRANSIT MAP

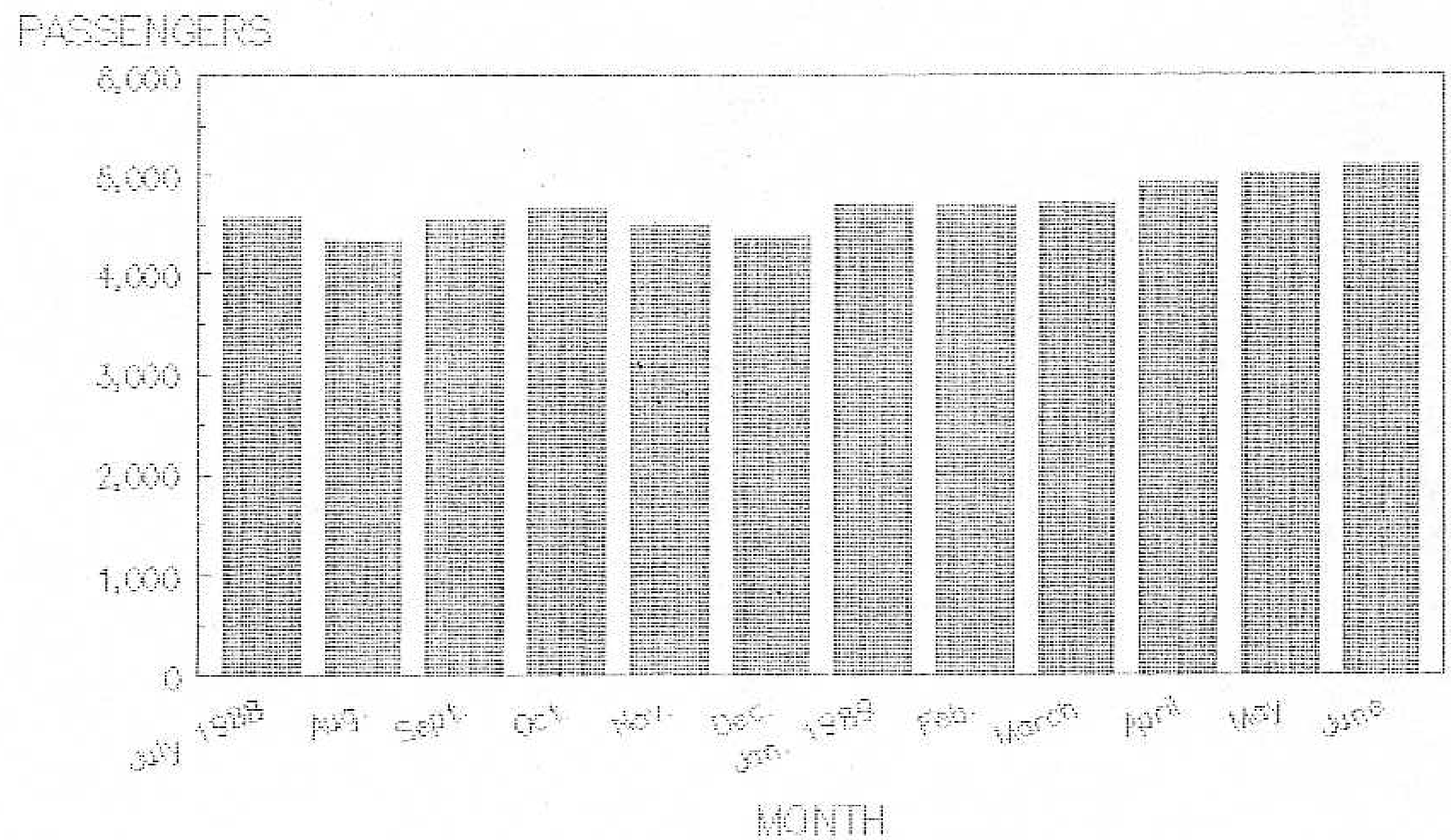
HOLIDAY SCHEDULES

New Year's Day — No Service
Martin L. King, Jr.'s Birthday — Saturday Service
George Washington's Birthday — Saturday Service
Memorial Day — Sunday Service
Independence Day — Sunday Service
Labor Day — Sunday Service
Columbus Day — Saturday Service
Thanksgiving Day — No Service
Christmas Day — No Service

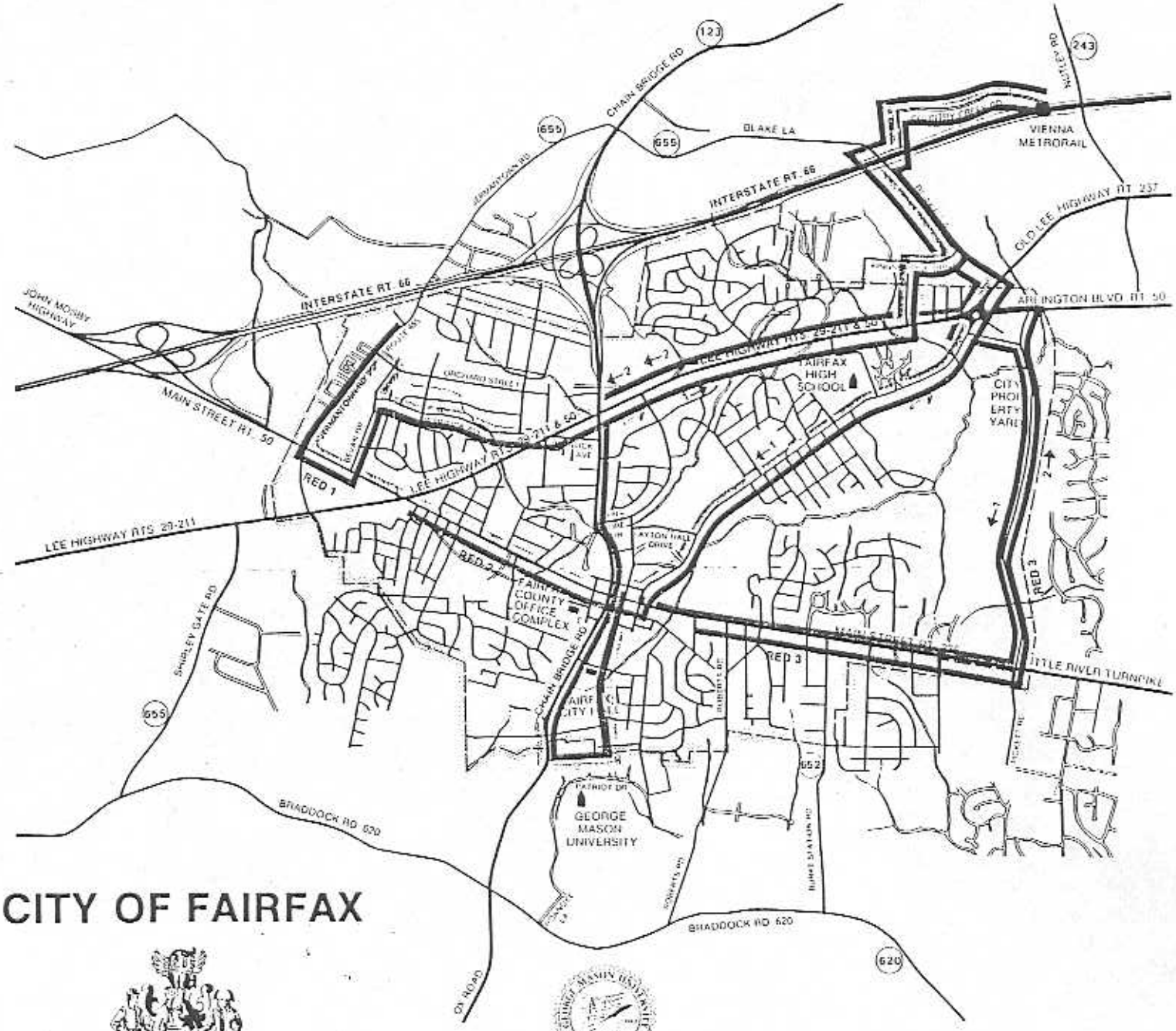
DASH— ALEXANDRIA TRANSIT COMPANY

AVERAGE WEEKDAY RIDERSHIP BY MONTH

JULY 1988 – JUNE 1989



Source: Alexandria Office of Transit Services & Programs

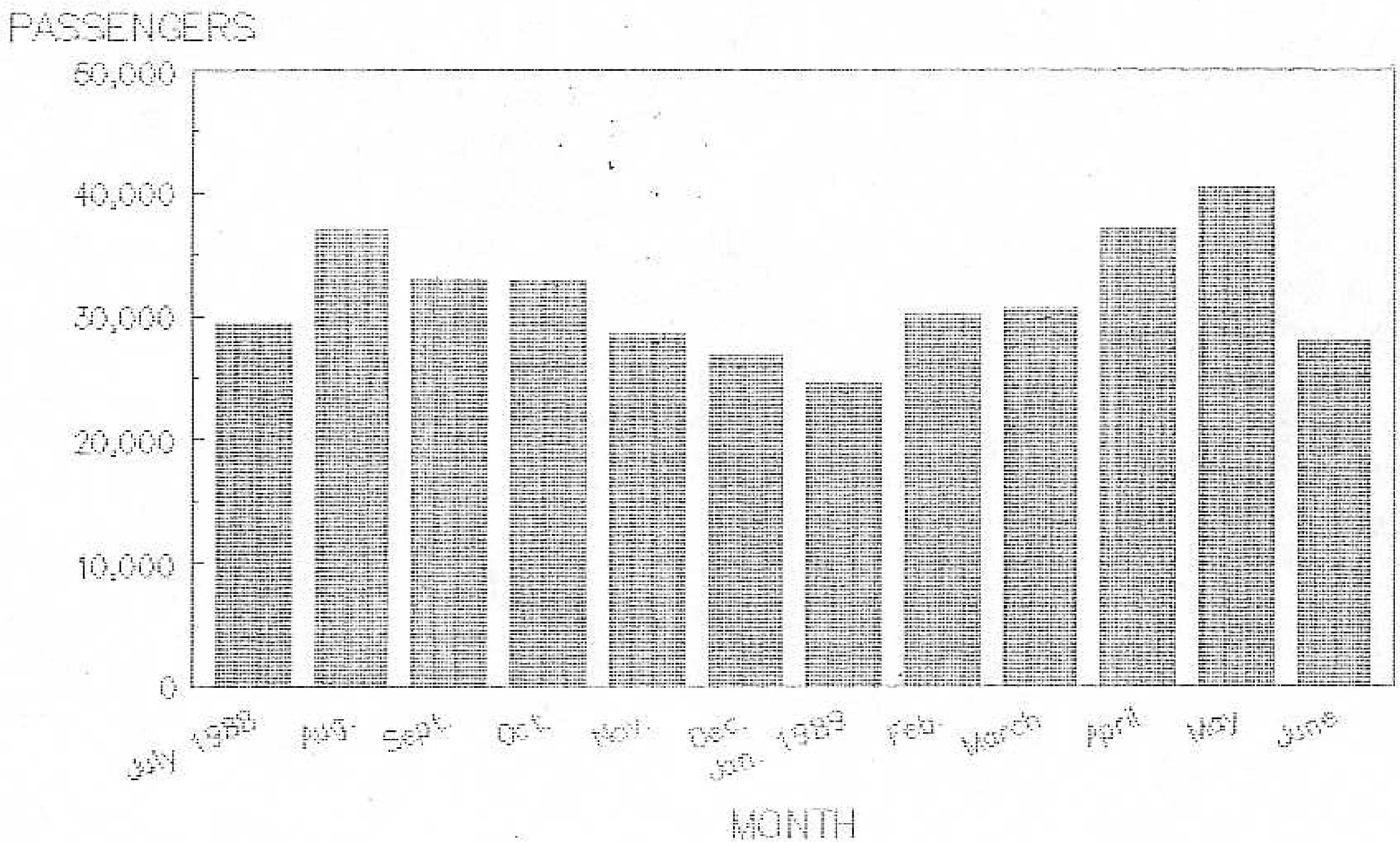


CITY OF FAIRFAX

THE CITY OF FAIFAX "CUE" BUS SYSTEM

PAID RIDERSHIP BY MONTH

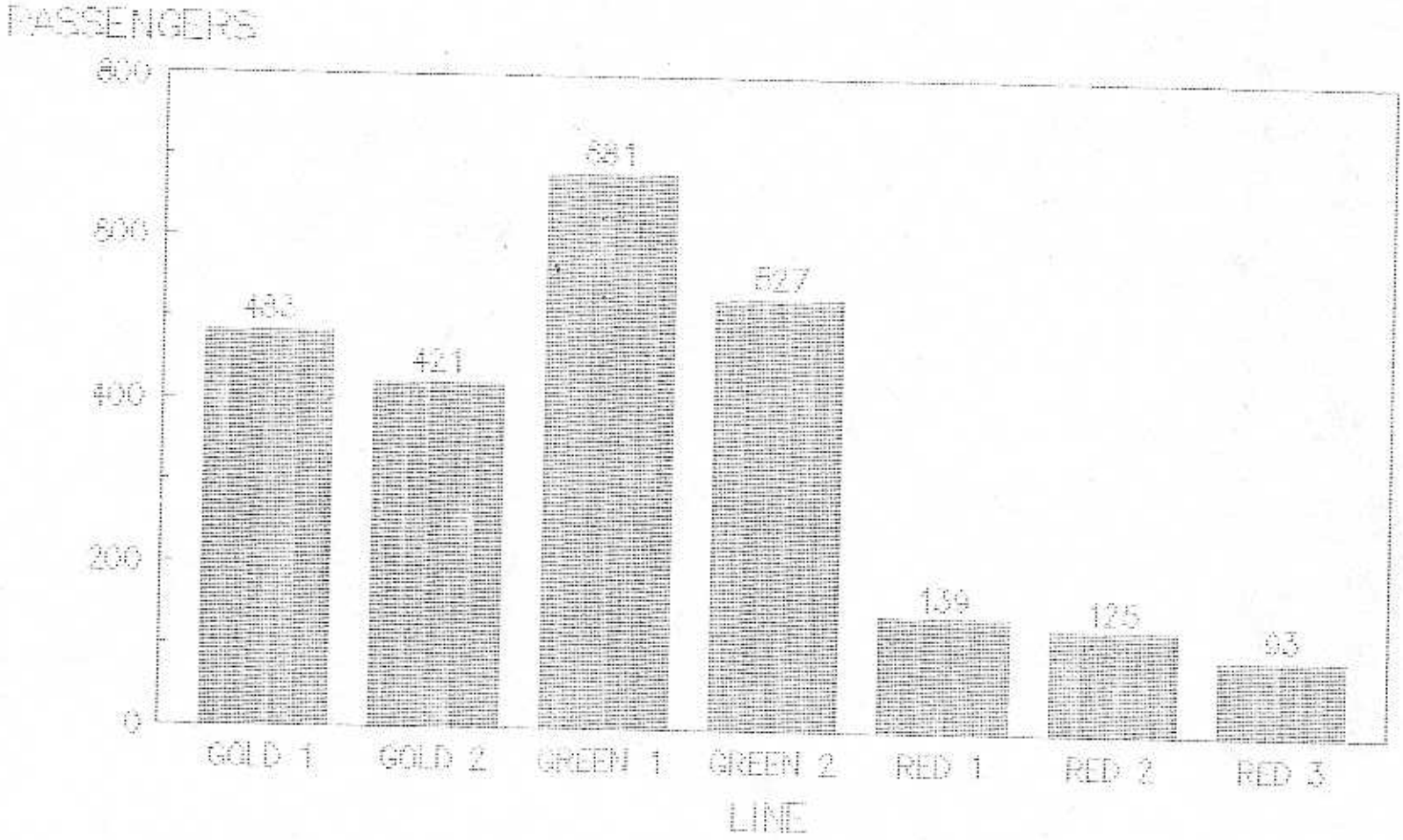
JULY 1988 – JUNE 1989



Source: Office of Transit & Utilities

THE CITY OF FAIRFAX "CUE" BUS SYSTEM

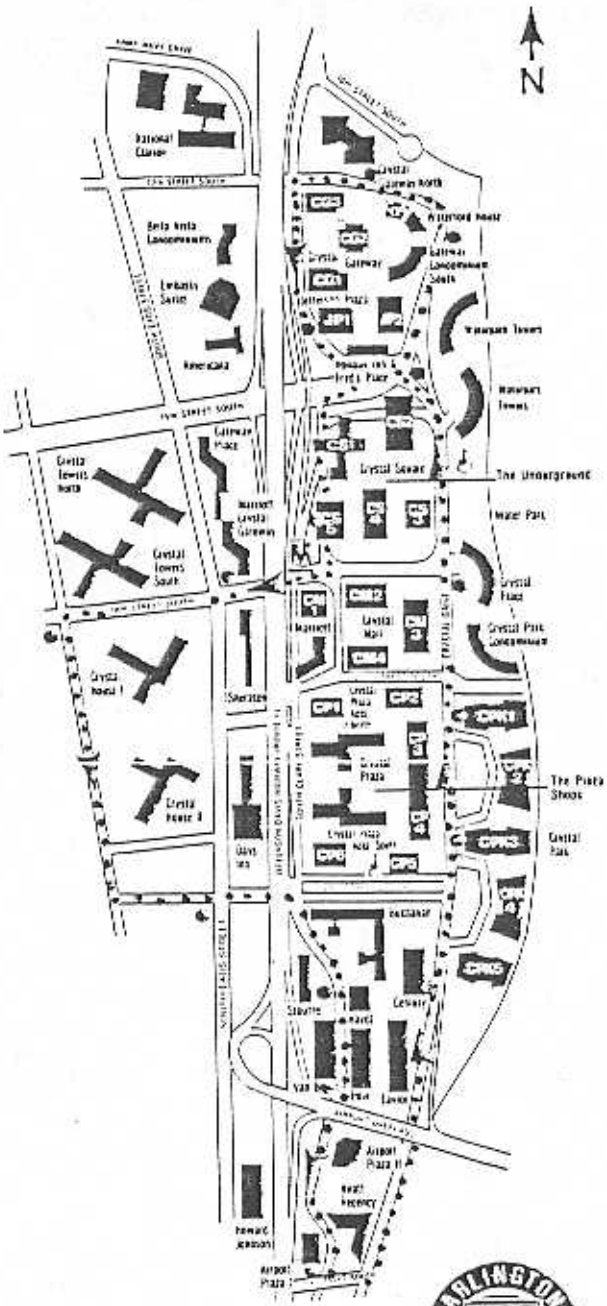
1999 AVERAGE DAILY BOARDINGS BY LINE



Source: Office of Transit & Utilities

Crystal City
Arlington, Va.

Arlington County
Department
of
Public Works



ARLINGTON TROLLEY

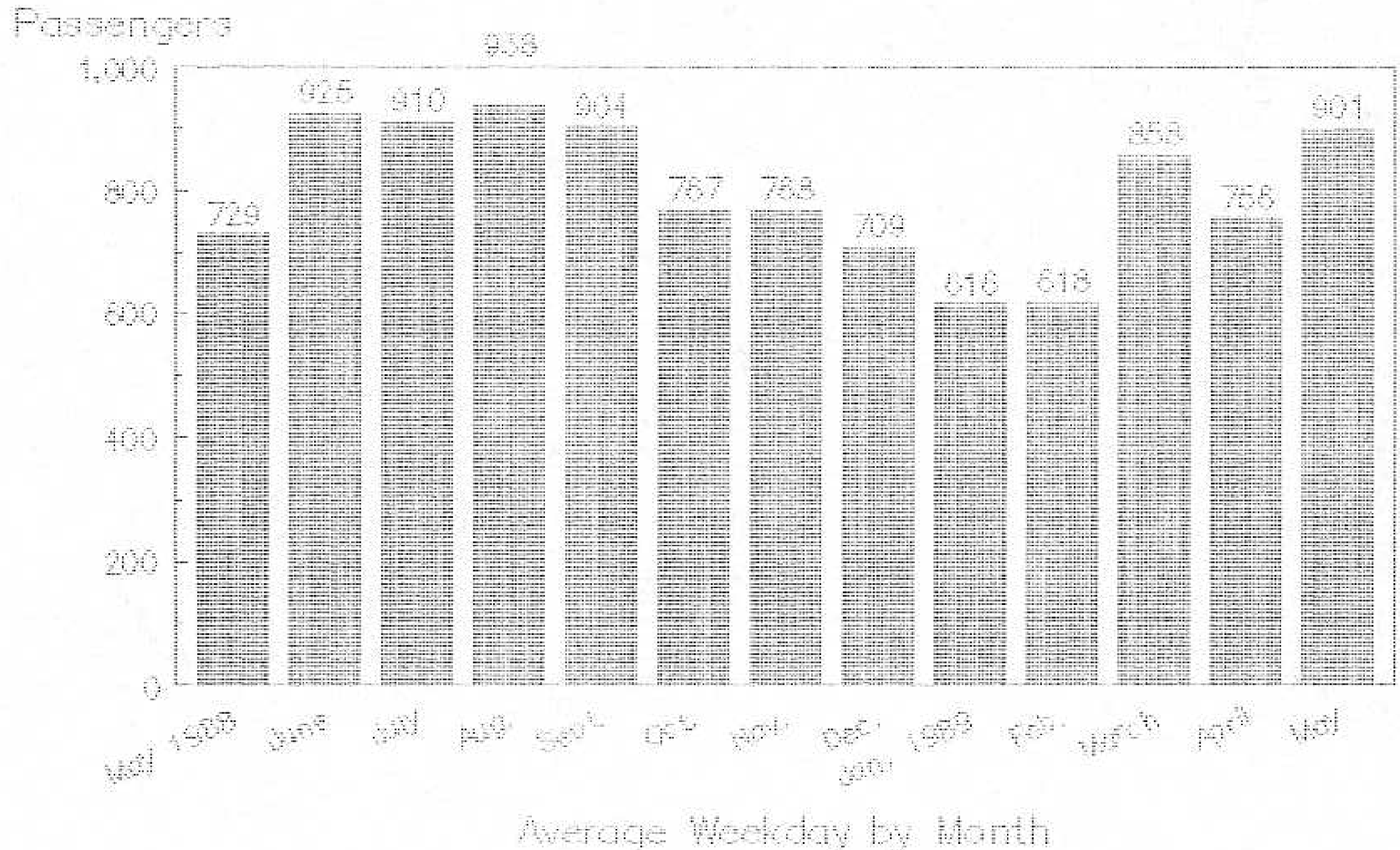
- Trolley Hours:
  6:30 a.m.-6:30 p.m., Monday-Friday
- 25¢ exact change or token required
- Complete loop takes 15 minutes
- 7-minute intervals

• • • Trolley Route

Handicapped Access to Mall

ARLINGTON CRYSTAL CITY TROLLEY

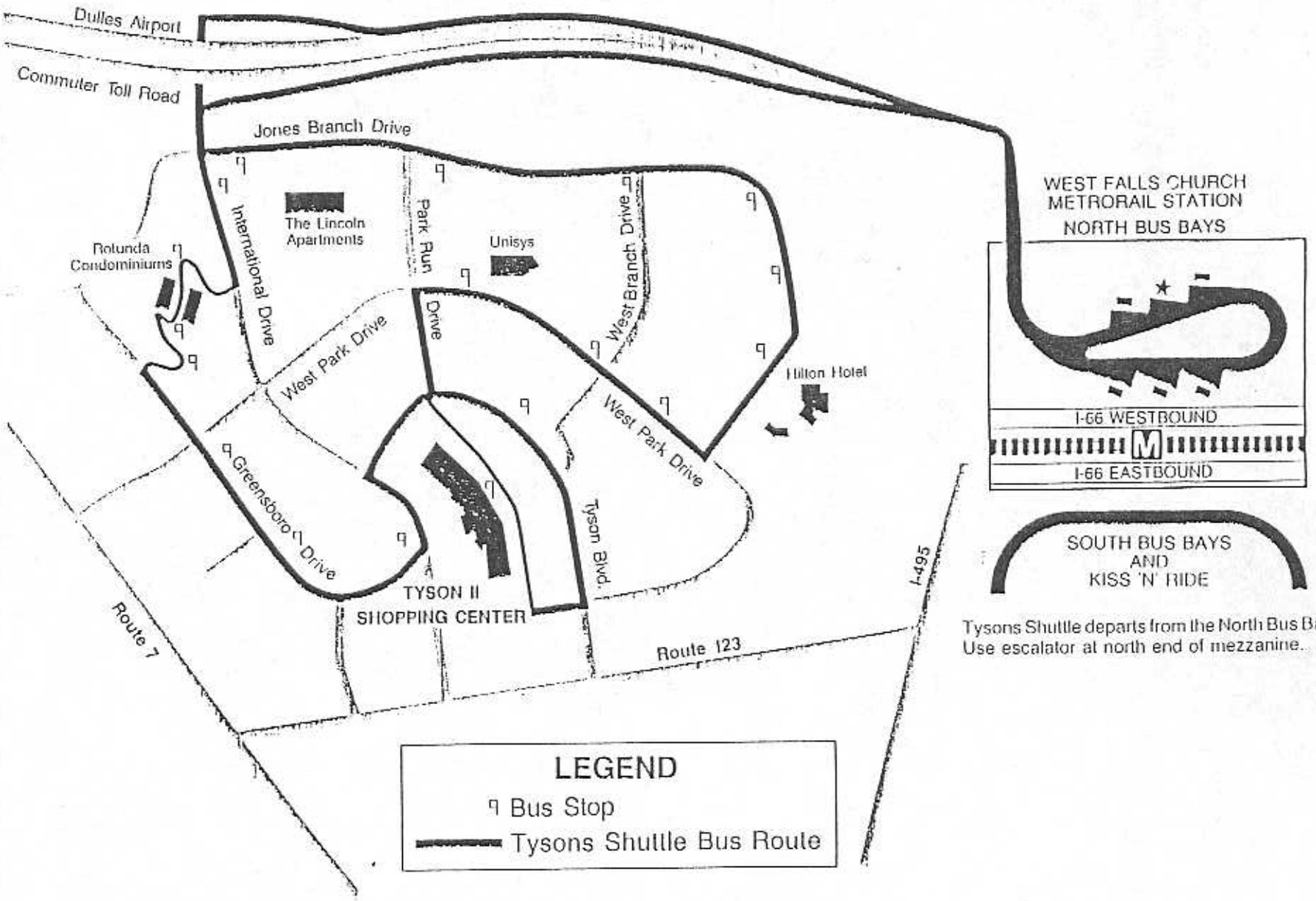
AVERAGE DAILY BOARDINGS BY MONTH
MAY 1988 - MAY 1989



Source: Arlington County Dept. of Public Works

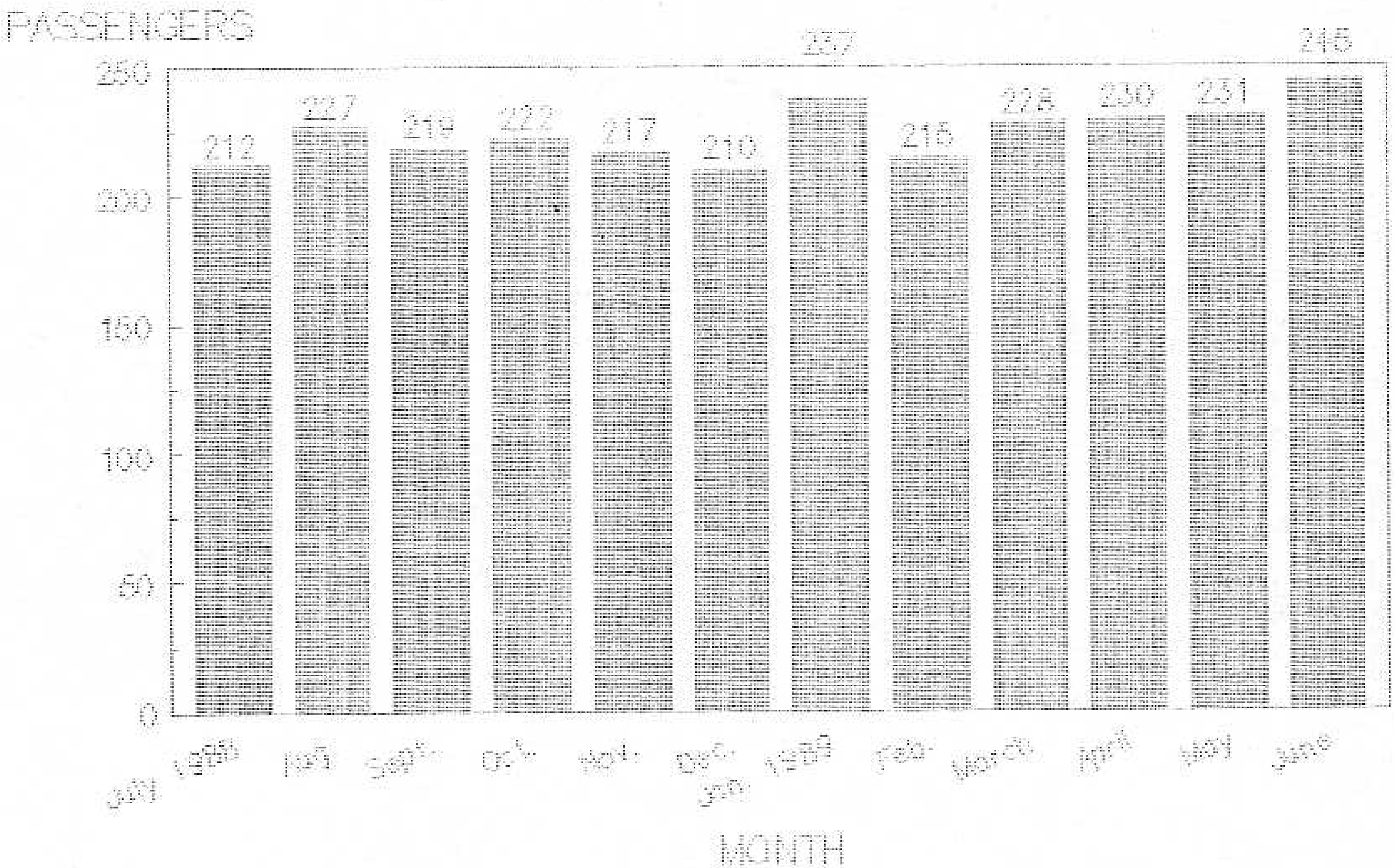
TYSONS SHUTTLE

TO WEST FALLS CHURCH METRO



Tysons Shuttle departs from the North Bus Bays.
Use escalator at north end of mezzanine.

TYSONS SHUTTLE
AVERAGE DAILY BOARDINGS
JULY 1988 - JUNE 1989

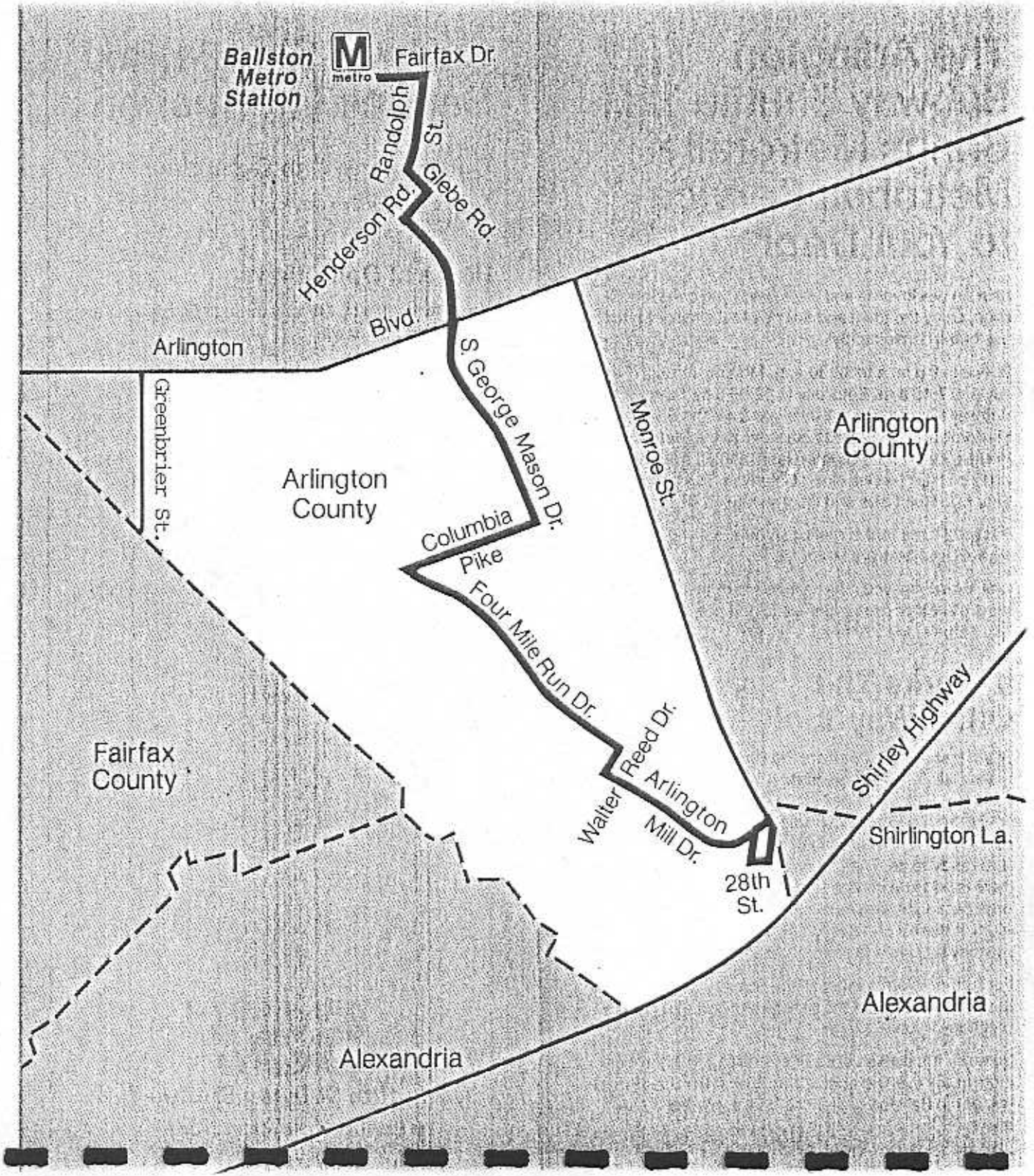


The Arlington Subway Shuttle Taxi

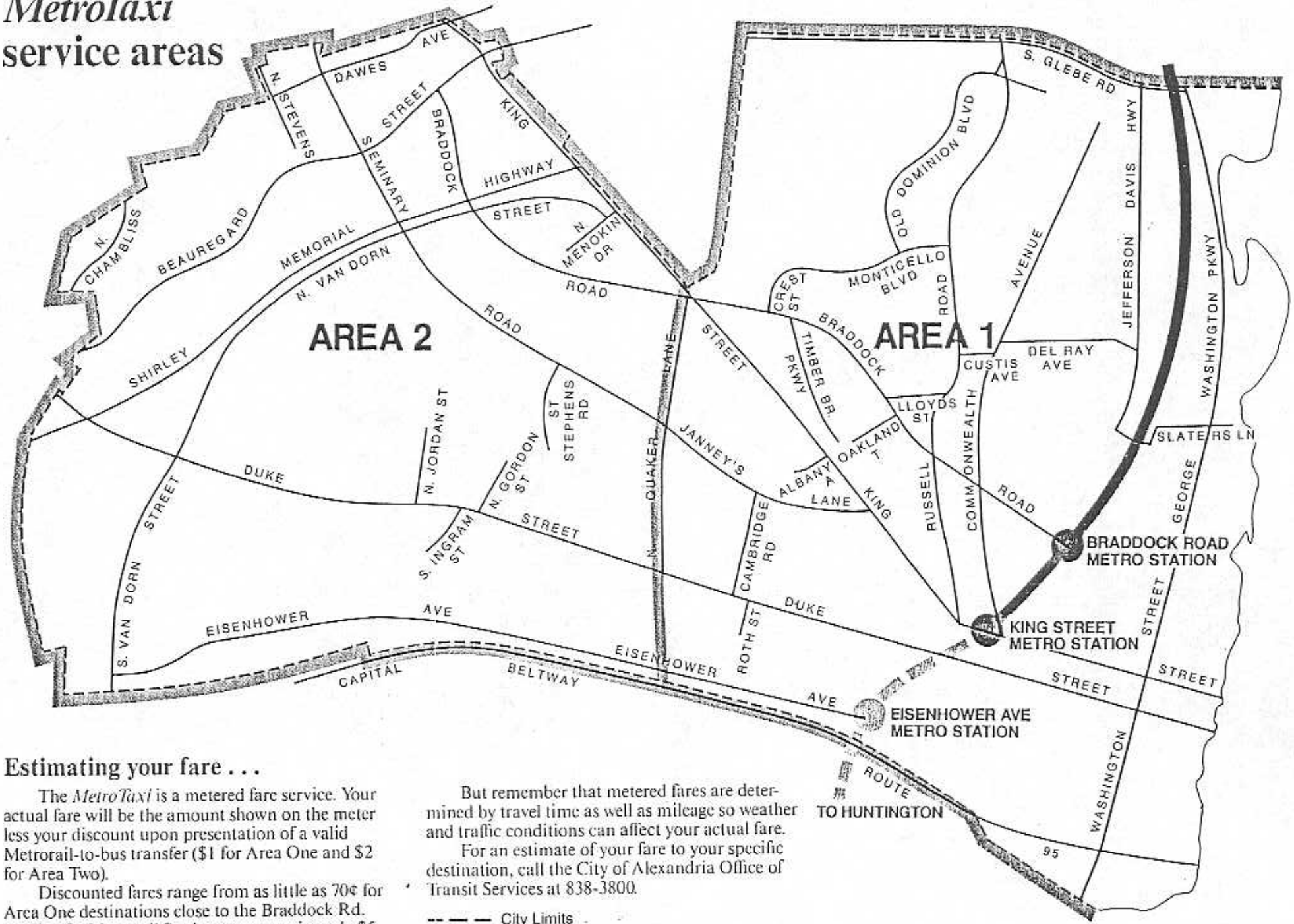
Service Area

The Arlington Subway Shuttle Taxi is designed to provide weeknight afterhours and Saturday to-the-door service for South Arlington residents living within normal walking distance of the Metrobus Route #22. The service area, as shown on the map, includes an area on both sides of Metrobus Route 22.

If you have any problems determining whether your destination or departure point is in the SST service area, call the Arlington Yellow Cab Co. at 527-2222.



MetroTaxi service areas



Estimating your fare . . .

The *MetroTaxi* is a metered fare service. Your actual fare will be the amount shown on the meter less your discount upon presentation of a valid Metrorail-to-bus transfer ($1 for Area One and $2 for Area Two).

Discounted fares range from as little as 70¢ for Area One destinations close to the Braddock Rd. or King St. Metrorail Stations to approximately $5 or more for more distant destinations in the West End of Area Two.

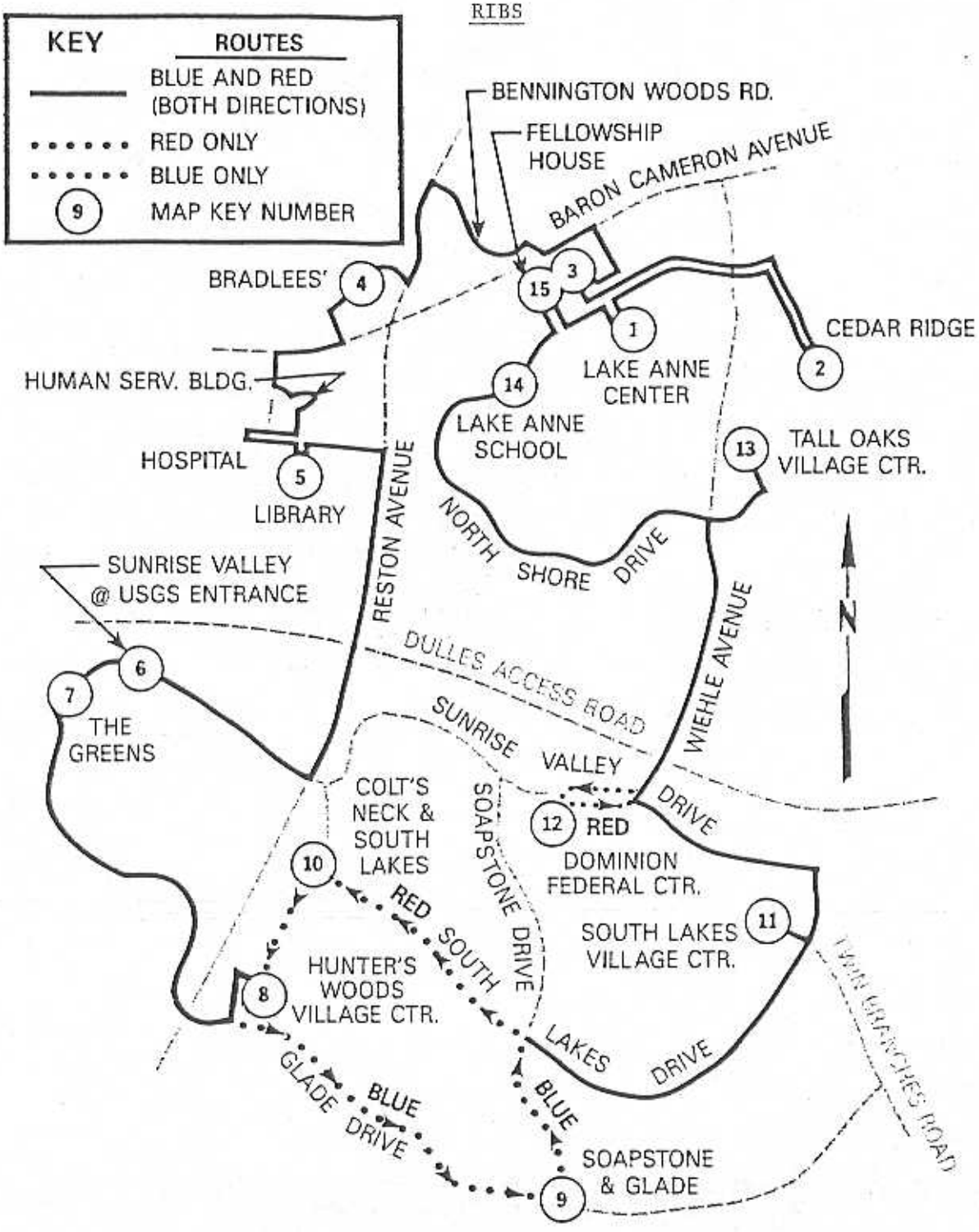
But remember that metered fares are determined by travel time as well as mileage so weather and traffic conditions can affect your actual fare.

For an estimate of your fare to your specific destination, call the City of Alexandria Office of Transit Services at 838-3800.

- – – – City Limits
- Area Boundaries
- ——— Streets

ROUTE MAP

RIBS



BUSES OPERATES IN CONTINUOUS LOOP AROUND RESTON IN BOTH DIRECTIONS ON ALL PARTS OF THE ROUTE, EXCEPT AS SHOWN. BUSES OPERATING "COUNTERCLOCKWISE" DISPLAY A BLUE SIGN; "CLOCKWISE" BUSES DISPLAY A RED SIGN.

APPENDIX IV

TRANSFER POLICIES FOR NORTHERN VIRGINIA'S TRANSIT SYSTEMS

TRANSFER POLICY KEY

If you plan to make trips requiring the use of more than one one transit system, the chart below may be helpful. The chart indicates the transfer policies from the services on the left to the services listed on the top.

A) No transfers accepted/not applicable
B) VA Metrorail to VA Metrobus-- 35 cent discount
C) Only on routes 300-304, 35 cent discount
D) Free-- time limit, within same zone
E) Routes 101-110, 301-304-- free or discounted
F) 60 cent discount
G) Discounted

Transfers: ** TO -> / ** FROM	Metro Rail	Metro Bus	Arlington Trolley	Tysons Shuttle	Reston RIBS	City of Fairfax CUE	Alexandria DASH	Fairfax Connector
Fairfax Connector	A	E	A	A	A	A	E	E
Alexandria DASH	A	F	A	A	A	A	D	E
City of Fairfax CUE	A	A	A	A	A	D	A	A
Reston RIBS	A	G	A	A	D	A	A	A
Tysons Shuttle	A	A	A	A	A	A	A	A
Arlington Trolley	A	A	A	A	A	A	A	A
Metrobus	A	D	A	A	D	A	D	D
Metrorail	D	B	A	A	A	A	A	C

TRANSFER POLICIES

Virtually all of Northern Virginia's transit systems permit some kind of transfers. The one general rule is that transfers are allowed for transportation in the same general direction within a specified time limit (although exceptions exist). Below are the transfer policies for the public transportation systems operating in Northern Virginia.

Metrorail to Metrobus/Fairfax Connector/Arlington County S.S.T./MetroTaxi

A Metrorail to Metrobus transfer can be obtained at any Metrorail station. The transfer machine is located on the mezzanine level and dispenses a dated and time-stamped transfer that is valid for two hours. A Metrorail tranfer to a Metrobus, the Fairfax Connector's 300 series routes only, and the Arlington County S.S.T., is worth a 35-cent discount.

The DASH system in the City of Alexandria does not accept Metrorail transfers. However, a valid Metrorail transfer is worth up to a $2 discount on the MetroTaxi serving Alexandria.

Bus to Bus

A free Metrobus to Metrobus transfer is available as long as the trip is in the same direction. There are zone crossing charges, however, during rush hours.

There are two transfer policies for the Fairfax Connector. Within the 100 series, where the fare is 25-cents, free transfers are permitted. A transfer from the Connector 100 series to the Connector 300 series routes, Metrobus, and DASH results in a 25-cent discounted fare. Note that no Metrorail transfers are accepted on the Connector 100 series.

For Fairfax Connector Routes 301-304, the transfer policy is the same as the Metrobus routes. A Metrorail transfer results in a 35-cent discount in the base fare. Transfers within this Connector series equal an 85-cent reduction in fare. There may still be charges for zone crossings. A transfer from this Connector series to the 100 series mentioned above results in a free ride--so long as the trip is in the same direction. A Metrobus or DASH transfer also entitles the holder to free passage for trips in the same direction. Again, there may be zone charges levied depending on the trip.

The DASH system serving the City of Alexandria also accepts some transfers. Within the system, a transfer with a three-hour time limit enables free movement among all buses, regardless of direction. A transfer from DASH allows free passage on the Fairfax Connector 100 series, is worth 85-cents on Connector routes 301-304, and a 65-cent discount on Metrobus routes. Metrobus transfers, on the other hand, are also worth the full 65-cent DASH fare. A 100 series Fairfax Connector transfer equals a 25-cent discount on DASH, and the full base fare when it is from the 300 series.

The City of Alexandria is also served by the MetroTaxi program. This is essentially a late night taxi service that serves the Braddock Road and King Street Metrorail stations, and is designed to complement DASH and Metrobus late night service. The MetroTaxi fare is the amount shown on the meter, less up to $2 for a valid Metrorail-to-bus transfer.

The Reston Internal Bus System (RIBS) has the following transfer policy:

> A Metrobus transfer, not more than two hours old, is worth the full RIBS fare. A valid RIBS transfer discounts the Metrobus fare by 25-cents.

Arlington County's Subway Shuttle Taxi (SST) is similar to the MetroTaxi in that it is a late night taxi service designed to supplement Metrobus Route 22B. It also operates all day on Saturday. The SST operates from the Ballston Metrorail station to the Shirlington area of South Arlington. The fare for the SST is 85-cents, and a valid Metrorail-to-bus transfer results in a 35-cent discount.

Arlington's Crystal City Trolley neither accepts nor issues transfers.

The Tysons Shuttle, providing service between Tysons II, the Westpark area of Fairfax County, and the West Falls Church Metrorail station, also does not issue or accept transfers.

APPENDIX V

TRANSPORTATION SERVICES FOR MOBILITY-IMPAIRED PERSONS

TRANSPORTATION SERVICES FOR THE MOBILITY-IMPAIRED

REGIONAL

AID VAN, INC.
550-9066
304 Richmond Highway
Lorton, VA 22079
Jurisdiction: Northern Virginia/Metro area.
Population Served and Services Provided: Individuals with physical and/of mental disabilities who are not confined to a stretcher. Lift-equipped vans provide door to door service.
Hours of Operation: Office hours are from 8 AM to 5 PM weekdays, but Aid Van will transport individuals on weekends and at other prearranged hours. Call at least 24 hours in advance.
Fee: $45 one-way, $65 roundtrip, $75 roundtrip into D.C. Trips outside normal route are $1.25/mile extra.
Restrictions on Trip Purpose: None.

AMERICAN CANCER SOCIETY
938-5550
346 Maple Avenue, East
Vienna, VA 22180
Jurisdiction: Northern Virginia
Population Served and Services Provided: Residents of Northern Virginia diagnosed as having cancer. Clients must be ambulatory. Volunteers transport clients in their own vehicles to treatment related appointments.
Hours of Operation: 8:30 AM to 4:30 PM Monday through Friday. Call two days in advance.
Fee: None.
Restrictions on Trip Purpose: Trips must be for cancer related medical treatment or therapy.

BLUE TOP CAB
243-8294
901 North Glebe Road
Arlington, VA 22203
Jurisdiction: Northern Virginia
Population Served and Services Provided: Senior citizens and the mobility impaired receive a 10% discount. Regular door to door taxicab transportation provided. No lift-equipped vehicles are available.
Hours of Operation: 24 hours a day, 7 days a week.
Fee: Charged on an hourly basis. 10% discount for elderly and disabled.
Restrictions on Trip Purpose: None.

DIAMOND TRANSPORTATION SERVICES, INC.
548-6500, or 549-1109 after office hours.
3025 Mount Vernon Avenue
Alexandria, VA 22305
Jurisdiction: Northern Virginia.
Population Served and Services Provided: Individuals with physical and/or mental disabilities who are not confined to a stretcher. Lift-equipped vans, and taxicabs provide door to door service.
Hours of Operation: Office hours are from 7 AM to 5 PM Monday through Friday. Transportation services are available 24 hours a day, 7 days a week. Call at least 24 hours in advance.
Fee: Average rate is $22.50 for one-way service within the Beltway.
Restrictions on Trip Purpose: None.

HANDI RYDE
525-8639
1122 North Utah Street
Arlington, VA 22201
Mailing Address: P.O. Box 490
Lorton, VA 22079
Jurisdiction: Northern Virginia/Metro area.
Population Served and Services Provided: Individuals with physical and/or mental disabilities who are not confined to a stretcher. Lift-equipped vans provide door to door service. Escorts and wheelchairs are available upon request.
Hours of Operation: 7 AM to 5:30 PM Monday through Friday. Weekends by special arrangement. Call at least 24 hours in advance.
Fee:

	One Way
First 5 miles	$40
6-10 miles	$50
11-15 miles	$60
Each additional mile	$ 1.75

Restrictions on Trip Purpose: None.

METROBUS AND METRORAIL
Route Information: 637-7000
On-Call Information: 962-1825
TDY: 638-3780
600 Fifth Avenue, NW
Washington, DC 20001
Jurisdiction: The entire Northern Virginia region.
Population Served and Services Provided: 371 lift-equipped buses, along 300 fixed routes, serve elderly and handicapped bus-riding patrons. 22% of the Metrobus fleet is lift-equipped, and Metro plans to have 50% of the fleet lift-equipped by 2005. Metro's On-Call service provides lift-equipped bus service, through advanced reservations, along any route that is not currently served by a lift-equipped metrobus.

Hours of Operation: On-Call: 7:30 AM to 5:30 PM Monday through Friday. 8 AM to 4:30 PM Saturdays, Sundays and holidays. Reservations for next-day service must be made before 3 PM. Regularly scheduled service varies by route.
Fee: Metrorail fares for persons with disabilities and senior citizens are one-half of peak-period fare rounded down to the nearest five cents, with maximum fare set at 85 cents. Basic Metrobus senior fares range from 25 cents to 55 cents, depending on the type of trip. Senior citizens must obtain a senior citizen I.D. card.
Restrictions on Trip Purpose: None.

MUSCULAR DYSTROPHY ASSOCIATION, INC.
823-1115
5249 Duke Street
Suite 109
Alexandria, VA 22304
Jurisdiction: Washington Metropolitan Area.
Population Served and Services Provided: Residents of the Washington Metro area diagnosed as having muscular dystrophy, and registered with the Muscular Dystrophy Association. Individuals are transported by lift-equipped van to Georgetown Hospital, Children's Hospital, or to related therapy programs or brace fittings.
Hours of Operation: 9 AM to 5 PM Monday through Friday. One weeks notice is required.
Fee: None.
Restrictions on Trip Purpose: Must be for medical-related appointments.

ARLINGTON COUNTY

ARLINGTON CHAPTER - AMERICAN RED CROSS
527-3010
4333 Arlington Boulevard
Arlington, VA 22203
Jurisdiction: Arlington County
Population Served and Services Provided: Arlington County residents who are not restricted to stretchers. Door to door transportation for grocery shopping is provided to seniors 60 years of age or older. Door to door transportation for medical appointments is provided to individuals of all ages. In January 1989, with the assistance of Arlington County, the agency acquired lift-equipped vans to provide transportation to individuals confined to wheelchairs.
Hours of Operation: 8:30 AM to 5:30 PM Monday through Friday. Call at least a week in advance.
Fee: None.
Restrictions on Trip Purpose: Mainly for medical appointments within Arlington County.

ARLINGTON COMMUNITY ACTION PROGRAM, INC. (ACAP)
528-76677
1415 South Queen Street
Arlington, VA 22204
Mailing Address: P.O. Box 62250
Arlington, VA 22206
Jurisdiction: Generally for trips within Arlington.
Population Served and Services Provided: Door to door transportation provided primarily for medical trips for the elderly and disabled. An application is not required. The program has lift-equipped vans, but these are currently out of service.
Hours of Operation: 9 AM to 5 PM Monday through Friday. Call at least 24 hours in advance.
Fee: None.
Restrictions on Trip Purpose: Trips are mainly for medical appointments.

ARLINGTON TROLLEY
358-3575
Traffic Information
Arlington County Department of Public Works
Arlington, VA
Jurisdiction: Arlington County
Population Served and Services Provided: Any disabled rider may use this service. Currently lift-equipped vans follow the Arlington Trolley and stop at all designated Trolley stops. Arlington County plans to replace the vans with 2 lift-equipped trolleys by the end of 1989.
Hours of Operation: 6:30 AM to 6:30 PM Weekdays.
Fee: The Trolley fee is 25 cents, and lift-equipped service is provided at no additional charge.
Restrictions on Trip Purpose: None.

FISH - FOR IMMEDIATE SYMPATHETIC HELP
337-8660
Jurisdiction: North and South Arlington
Population Served and Services Provided: Arlington residents who are not restricted to wheelchairs or stretchers. Door to door transportation is provided on a one-time emergency basis for those in need. Lift-equipped vehicles are not available.
Hours of Operation: 24-hour answering service, 7 days a week. Service provided depends on availability of volunteers.
Fee: None.
Restrictions on Trip Purpose: Must be for emergency assistance.

ALEXANDRIA

DOT
838-3800
Office of Transit Services

Jurisdiction: Fairfax County, Fairfax City, Falls Church.
Population Served and Services Provided: Lift-equipped bus service is provided along a fixed route. Service is available for transportation-disadvantaged, income-eligible residents. (With the exception of Falls Church, which has no income guidelines.) An application is required, but interested individuals should call before applying to discuss his/her eligibility.
Hours of Operation: Information, registration and transportation is available from 8 AM to 4:30 PM Monday through Friday, but the prime-time for transportation services is between 10 AM and 2 PM. Call-ins for service are accepted from 8 AM to 12 noon Monday through Friday. Reservations are required at least 24 hours in advance.
Fee: None at present.
Restrictions on Trip Purpose: None.

ARLINGTON, FALLS CHURCH AND THE CITY OF FAIRFAX

FARE WHEELS

Jurisdiction:		
	Arlington County	358-4786
	Falls Church	241-5005
	City of Fairfax	385-7894

Separate eligibility criteria, restrictions and fees by jurisdiction.
Population Served and Services Provided: Arlington: elderly and disabled who are also eligible for other social service programs. City of Fairfax: individuals who are unable to ride the CUE system. Falls Church: individuals who are at least 60 years of age and unable to use public transportation. All jurisdictions require an application, but the strictness of eligibility requirements vary. Each jurisdiction provides door to door taxicab or, upon request, lift-equipped van service.
Hours of Operation: Variable.
Fee: Arlington and Falls Church: no fee. City of Fairfax: $6 for $20 worth of coupons.
Restrictions on Trip Purpose: Arlington: trips may only be for medical appointments. Falls Church and Fairfax: no restrictions.

APPENDIX VI

SIGNIFICANT TRANSPORTATION PLANNING STUDIES IN NORTHERN VIRGINIA

Significant Transportation Planning Studies

In Northern Virginia

A. Fairfax County

1. Transit Alternatives in the Dulles Airport Access Road Corridor:

The second and final phase of this $300,000 study is underway. The first part dealt with identifying the different sources of transit ridership within the Corridor. Alternatives are now being studied to best serve this area.

2. Fairfax County Bus Fare and Parking Fee Pricing Program:

This program is attempting to reduce overcrowding at Metrorail parking facilities through the use of feeder buses. As part of this project, fares on the 100 series Connector buses will continue to be 25-cents.

3. Fairfax Planning Horizon:

This multi-faceted project is undertaken by County staff and various consultants on a yearly basis. The report looks at land use planning, transportation demand, and other interrelated

issues in an effort to deal with these problems in a comprehensive manner. Peat Marwick Main has been retained to do the transit modeling portion of the project.

4. Marketing Research/Resource Allocation Plan:

This study, undertaken by the County's Marketing Department, will develop better tools to forecast ridership demand. Focus groups will be held, surveys taken, and demographic analysis conducted in an effort to anticipate the County's future transit needs. This $16,000 study will be funded by the Metropolitan Washington Council of Governments, using Section 8 Federal funds.

6. Franconia/Springfield Environmental Assessment:

This study will combine the environmental analysis needed for the Franconia/Springfield Metrorail station, Transportation Center, and Virginia Railway Express commuter rail station. The $281,000 cost of this report will be paid by Fairfax County, Arlington and the City of Alexandria. Ultimately, however, the jurisdictions expect to be reimbursed by the Urban Mass Transportation Administration.

B. Arlington County

1. Report on the Arlington Fare Initiative:

The Arlington Fare Initiative consisted of several parts, including a reduction in the river crossing surcharge from 80-cents to 30-cents, elimination of Zone G for travel within the County, and a flat Metrorail fare of 50-cents for travel between two Arlington Metrorail stations not more than two miles apart. The initiative boiled down to a 9-cent increase in Arlington's subsidy per passenger which resulted in a 30-cent savings to the average commuter. Bus and rail ridership increased in tandem by 11%.

C. City of Alexandria

1. Downtown Parking Study:

This $60,000 Peat Marwick Main study was designed to forecast the City's parking demand, and provide a strategy to effectively meet this need. The study has been completed, and a parking garage capable of holding about 350 cars will be built at the intersection of Queen and Lee Streets. The date of completion has not been determined since the City is having trouble securing the land from the current owner.

D. City of Falls Church

No studies are being conducted at this time.

E. City of Fairfax

No studies are being conducted at this time.

F. Prince William County

1. Inter-Jurisdictional Transportation Study:

The first phase of this project was designed to determine demand for a bus system serving the County and its independent cities. This portion has been completed. The County is currently working on the feasibility segment of the project.

2. The Elderly and Handicapped Transportation Study:

This study was undertaken to better coordinate transportation services for the elderly and mobility impaired. The first section, designed to survey the County's existing public and private transportation facilities, has been completed. Prince William County is now applying for VDOT funds to conduct an implementation study.

3. Multi-Modal Transit Center Study:

All studies have been completed on this project. The $7 million structure will be funded by UMTA, VDOT, and Prince William County. The Center--which will include a bus maintenance facility and commuter related stores such as a day-care center--should be operational in 1992.

G. Washington Metropolitan Area Transportation Authority

1. Patronage Forecast for the 103 Mile Metrorail System:

In the Fall of 1989, COG will be conducting a study to determine demand in the year 2010 for the entire 103-mile Metrorail system. Round IV population forecasts will be utilized by COG. The results of this study will allow Metro to predict future railcar requirements.

2. Effects of Fuel Prices on Transit Use

The goal of this study is to create computer models designed to see how increases in gasoline prices will affect Metrorail demand on the 89.5 mile system using the 1988 Patronage Forecast. This will help Metro handle ridership increases that may occur from an increase in the Federal Gas Tax. The study, which will be conducted by COG staff, should commence in late 1989.

Metropolitan Washington Council Of Governments

1. Long Range Regional Transportation Plan Update:

During FY88 and FY89, the COG/TPB staff concentrated on the Virginia jurisdictions as part of their work on the Northern Virginia Subregional Plan. For FY90, the staff will focus on identifying deficiencies in existing and planned transportation systems within the District of Columbia and Maryland. Alternatives to address these deficiencies will be

developed and evaluated. This project will be combined with the findings concerning Northern Virginia, resulting in an integrated Long Range Regional Transportation Plan. The work conducted in FY90 is expected to cost $300,000.

2. Impact Assessment

The first phase of this project involved forecasting 2010 travel demand, and evaluating this demand against the transportation network shown in the TPB Long Range Plan. The current portion of this study will consist of updating the transit networks to reflect the findings from the Northern Virginia Subregional Plan, and the locally adopted plans from Maryland and the District of Columbia. Round IV land use inputs and alternatives will be evaluated as will the lane deficiencies at both the freeway and arterial level. The cost of this phase is estimated at $150,000.

3. Transit Entrepreneurial Services

SG Associates, Inc. and Mundle and Associates, Inc. have been selected by COG to review all current local transit services which are operated by a private firm, analyze the market potential for new entrepeneurial services, and provide technical assistance to sponsors and service providers who agree to initiate such new services. Examples of the types of services include: express commuter buses; reverse commute services linking inner-city residents with suburban jobs; circulation

systems for suburban employment centers; links between Metrorail stations and suburban jobs; and, neighborhood circulation systems. $50,000 is available to fund the study.

H. Virginia Department Of Transportation

1. Subregional Plan for the I-95 Corridor Sub-Area:

This project is designed to explore the alternatives for relieving traffic congestion along the I-95 corridor. The study will examine the impact of extending Metrorail to Lorton or Dale City, building Ridgefield Road, and the possible alignments for the proposed road. The influence of the Virginia Railway Express--the proposed commuter rail project--will also be considered. The study is being coordinated by VDOT's Northern Virginia office, with technical help coming from COG/TPB staff.

2. Beltway Study:

This $1.1 million project is designed to study both interim and long range improvements to the Beltway. Such possible short-term solutions as improving minor interchanges, and using the shoulder as a full-time lane are being examined. Long-range alternatives, including the addition of lanes, are being studied. The report should be concluded by October, 1989. J.H.K. & Associates is the consultant conducting the study.

3. Washington By-Pass Study:

This ongoing study will examine three alternatives for both the Eastern and Western By-Pass. The public will be able to provide input into the process at various hearings scheduled for February of 1990. A decision on alignments and implementation should be made by early Spring, 1990. The firm of Bellomo McGee, Inc. has been retained to conduct this important $1.2 million study.

I. NVTC

1. Study of Financial Resources for Transportation in Northern Virginia:

NVTC is managing this study for several Northern Virginia jurisdictions. A consultant will analyze existing patterns of taxation used to support transportation and recommend an appropriate mix for the future. The final report must be completed by December 31, 1989. Work will begin in early September, 1989.

APPENDIX VII

CHRONOLOGY OF THE VIRGINIA RAILWAY EXPRESS

CHRONOLOGY OF THE VIRGINIA RAILWAY EXPRESS

1984 o Feasibility Study completed by R.L. Banks and Associates, Inc. Calls for service to King Street Alexandria using new equipment. NVTC staff introduced the concept to the Commission and was directed to report back, particularly regarding the terms and conditions required by the RF&P and Southern, since strong railroad opposition had doomed earlier commuter rail efforts since 1964.

1985 o In April NVTC staff proposed two-year experimental service with used railcars and locomotives and with reduced crews at significant savings. Eight trains would operate during rush hours. An NVTC resolution endorsed the plan and provided staff's findings to a new Legislative Subcommittee on Commuter Rail. Staff was also directed to undertake a study of commuter bus alternatives.

o Draft Master Agreement is negotiated with several local jurisdictions, and a basis for sharing costs and revenues is agreed to. Stations are identified.

o Meetings with organized labor provide promise that reduced crew sizes may be acceptable.

- o Suitable used railcars cannot be located, although locomotives are readily available for rehabilitation.

- o Robert L. Banks and Associates, Inc. is hired to provide overall project consulting. He reevaluates the NVTC staff budget and two-year operating plan and finds it sound.

- o Proposal to operate a single commuter rail train (AMTRAK's Virginian) as a pilot is evaluated. The Urban Mass Transportation Administration promises a grant. NVTC Commissioner Snyder arranges for Greyhound to accept commuter rail tickets on parallel routes. Congressman Parris sets a target of Labor Day 1986 for the start of service using the Virginian.

1986 o In July the Commission acts to proceed with the Virginian pilot, including sending the Master Agreement to the jurisdictions to be ratified.

- o Liability insurance problems prevent the pilot train from operating, since commercial insurance is not available at any price.

- o Work begins on establishing a self-insurance trust.

- State funding for commuter rail is received. A $5 million contingent loan and $50,000 grant for insurance are received.

- A March 17, 1986 Rail Rally arranged by Commissioner Moore drums up popular support using a group known as the "Friends of the Virginia Railway Express."

- Tillinghast Nelson and Warren is hired to perform a study of expected insurance claims for VRE service.

- NVTC sought to store railcars owned by Go-Transit of Toronto (that had been used by MARC in Maryland) to give the Commission time to arrange for leasing, but liability insurance for storage could not be obtained.

- Negotiations proceed with organized labor for a 13(c) labor protection agreement to permit receipt of a Federal grant.

- Discussions begin regarding expanding NVTC to include outlying jurisdictions or creating a new transportation district.

- The Potomac and Rappahannock Transportation Commission is formed, with a two percent motor fuels tax to help pay for the commuter rail project.

- o Legislation that would have capped liability failed in the Virginia House of Delegates' Courts of Justice Committee; instead, NVTC's liability was clearly established so that it could agree to indemnify the railroads (i.e., issues of sovereign immunity were resolved).

- o Negotiations continued on terms of the draft master agreement.

1987

- o Ridership study completed by R.H. Pratt raises earlier estimates to almost 4,000 daily, depending on the amount of parking.

- o VDOT provides $3.2 million for capital and administrative costs.

- o Contracts with VDOT permit design of rail stations and parking lots.

- o NVTC approves 13(c) agreements with organized labor.

- o A detailed financial plan is developed with financial advisors, bond counsel and underwriters.

- o Agreement is reached with AMTRAK on an operating contract that provides modest crew reductions.

1988

- o A plan for a self-insurance-trust is developed that will provide up to $200 million in liability protection for the participating railroads. It would be administered by the Commonwealth's Division of Risk Management.

- o Railcar and locomotive procurement begins using specifications designed by AMTRAK and the Commission's consulting engineers (STV, Seelye, Stevenson, Value and Knecht). Locomotives are in very short supply and only one suitable bid is received. A railcar supplier is chosen but agreement with the railroads is not achieved on the indemnification plan so the procurement is terminated.

- o In an effort to encourage smaller properties to join together in negotiations with potential contract operators (such as AMTRAK,) NVTC, PRTC, R.L. Banks and APTA co-sponsor the first annual North American commuter rail conference held in Rosslyn, Virginia.

- o New Virginia legislation permits the Commissions to purchase off-shore captive insurance to help establish its self-insurance trust.

- o Enforcement of honor system fare collection is enabled through new state legislation.

- Financial advisors, bond counsel and bond underwriters advise the Commissions on a financial plan and approximately $90 million debt issue to purchase 38 railcars and 10 locomotives while funding the Self-Insurance Trust.

- All six participating and contributing jurisdictions endorse the Master Agreement and financial plan in concept. Fredericksburg decides not to participate.

- AMTRAK, the Southern Railway and the RF&P finally agree to the Self-Insurance-Trust, as does the Division of Risk Management.

- AMTRAK's Graham Claytor presents the SIT plan to Conrail. Conrail refuses to consider the plan, since a Federal Judge has ruled in the case of the January 1987 Chase, Maryland accident that a similar arrangement was not enforceable.

- A new chief executive officer, Richard Sanborn, takes over at Conrail. He agrees to work out an operating agreement with the Commissions but continues to insist that it be contingent on settling Conrail's concern that the SIT provide iron-clad coverage. After a month on the job, Mr. Sanborn passes away, and negotiations cease.

- o The Commissions begin another procurement process, but are forced to suspend it indefinitely since Conrail will not agree to terms.

- o VRE's Operations Board begins to meet monthly, and selects its officers.

- o UMTA provides a formal grant award of $750,000 but requires the project to be implemented by October 1989 or most of the grant will be lost.

1989

- o Southern Railroad provides a draft operating agreement which the Commissions hope to use as a model for RF&P and Conrail.

- o Negotiations are resumed with Conrail under the auspices of its new chief executive, James Hagen.

- o Federal legislation is introduced by Senator Robb and Representative Boucher to resolve Conrail's concerns with the enforceability of the Commissions' indemnification contract.

- o The Operations Board calls for the two Commissions to commence the purchase of railcars and locmotives, issue the tax-free debt, and establish the SIT. The proposal calls

for the Master Agreement and financial plan to be revised to include a contingency for service terminating in Crystal City, if Conrail will not otherwise cooperate.

- After refusing to consider enlarging its First Street Tunnel since 1985, AMTRAK agrees to investigate the possibilities and the Commissions contract to do so. Enlarging the tunnel would permit high-capacity railcars to be used at significant savings to the project.

- New Virginia legislation strengthens NVTC's powers to plan and operate VRE service.