

Metro Core Capacity Study

A Prescription for Meeting Market Demand

A Legacy of Service

Since 1976, the Metro system has provided mobility to the people of and visitors to the National Capital Region. Over the years, Metro also has become a vital element in the region's balanced transportation equation, as evidenced by the fact that:

- 18% of peak period trips in Metro's service territory are on transit.
- 41% of all trips into the region's core, including Rosslyn, Crystal City and the Pentagon, are on transit.
- Half of Metro's downtown stations serve federal facilities and about 35%-40% of locally based federal employees regularly ride the system.
- Metro is a mode of choice to major special events including July 4th, sporting contests, concerts, parades, festivals and celebrations such as presidential inaugurations.

On a daily basis, Metro removes up to 325,000 vehicles from the regional roadways and eliminates the need for 1,400 miles of highway lane miles or more than a 10% increase in the existing highway network--thus contributing to regional mobility and regional air quality mandates. Moreover, Metro has spawned over \$15 billion in development at station sites as the region has grown and prospered.

On March 29, 2001, the Metrorail system marked its 25th anniversary of service. As a testament to Metro's success, it has recently been recognized as the fastest growing rail system in the nation in terms of ridership. Together, Metrorail and Metrobus currently transport more than 1.1 million customers each business day.

The integral role Metro plays in providing mobility to the region was demonstrated conclusively on the morning of September 11, 2001 when, in the wake of the terrorist attack on the Pentagon, Metrobus, Metrorail and MetroAcess operated a near flawless, back-to-back rush hour when Washington, D.C. was evacuated. With the specter of terrorism a continuing reality, the Metro system is a crucial element in the region's emergency preparedness.

Future Regional Growth

By 2025, according to regional forecasts of the Metropolitan Washington Council of Governments (MWCOG), the metropolitan Washington region will experience a 31%

increase in population to 5.1 million residents, a 38% increase in employment to 3.6 million jobs and a doubling of person trips. At WMATA, planning to accommodate this projected growth has actually been underway in earnest since 1999 when the Metro Board adopted the WMATA Transit Service Expansion Plan that established a goal of doubling Metro ridership by 2025. This goal is designed to maintain the existing ratio of transit utilization, or market share, in the region, and to increase the number of people who can travel in major transportation corridors.

The Board realized that future demand for transit services and rail system growth could have an effect on the system's ability to transport customers in the core of the system through downtown D.C. As a result, the Board approved a study of Core Capacity to analyze specific operating strategies and capital investments required to meet normal growth on the Metro System as well as the impacts of service expansions approved in the region's Long Range Transportation Plan (Blue Line extension to Largo Town Center, Red Line New York Avenue station, Orange Line extension to Tysons Corner, Dulles and Loudoun County). This study is being integrated with the Board-approved Regional Bus Study that is identifying ways to better serve existing markets and to target new markets for the region's bus services. Taken together, these studies are setting forth the policy options and funding needs for charting the Metro system's next generation of service to the region.

Factors Driving Core Capacity

Metrorail's average weekday ridership has increased by 73,000 trips in the past two years, and this year was expected, prior to the September 11 terrorist attacks, to reach 650,000 average weekday trips - a 7% annual increase. The doubling of Metro ridership by 2025 is based on projected regional growth yielding a 3% per annum growth rate; since 1999 it has been more than double that, indicating that the 100% increase in market demand may occur prior to the quarter-century mark.

- More than 70% of rail ridership occurs during the morning and evening rush hours, and 43% of these commuters ride Metro in a one-hour time period,
- The 29 stations in the core of the Metrorail system serve 60% of customers, 90% of those who transfer between rail lines, and 100% of all daily train trips.
- The maximum capabilities of the Metrorail system is affected by the following three factors:
 - Number of trains per hour (26 is the design maximum)
 - Number of cars per train (8 is the maximum; no more than 6 are used today)
 - Number of passengers per car (120 passengers per car, or 162% of a seated load)

- The number of trains that can be operated into the core is constrained by portals where rail lines merge on the two-track system - - mainly the river crossings at Rosslyn and L'Enfant Plaza. A maximum of 26 trains per hour in each direction is the defined limit of the existing system on each rail line.

The major driving factors in the analysis of future conditions on Metrorail are train capacity, ridership and system expansions. The following indicates the timeframe for the projected growth.

Year	Driving Factor	Average Daily Ridership
2003	<ul style="list-style-type: none"> ▪ Customer demand ▪ Delivery of 192 rail cars 	650,000
2006	<ul style="list-style-type: none"> ▪ Customer demand ▪ New York Avenue station ▪ Largo Town Center extension ▪ Tysons rail/BRT service 	700,000
2010	<ul style="list-style-type: none"> ▪ Customer demand ▪ Dulles Airport & Loudoun County rail ▪ Red Line demand 	775,000
2014	<ul style="list-style-type: none"> ▪ Customer demand 	850,000
2020+	<ul style="list-style-type: none"> ▪ Customer demand 	1,000,000+

Major Findings

Study findings conclude that meeting future demand will require immediate planning and funding in order to operate the system at its design capacity. Today, Metrorail operates a combination of 4- and 6-car trains, although it has a design capability to support a maximum of 8-car trains. The number of passengers per hour that can be carried on each line is a function of the number of cars per train and the number trains per hour that can be operated within acceptable reliability limits (currently 98%). The recommendations of the Core Capacity Study establish a program that maximizes the passenger capacity of the existing rail lines through the core.

As presently equipped, the Metro system can reliably operate a maximum of 26 trains per hour (one every 135 seconds) on each track. Given that all lines, except the Red, share track through the core with one other line, the maximum number of trains per line that can be reliably operated in an hour cannot, in combination with the paired line,

exceed 26 trains per hour. There are five points in the system where multiple lines merge, and in turn limit the number of trains for each line that can be reliably operated:

- Rosslyn (Orange and Blue Lines)
- Pentagon (Yellow and Blue Lines)
- L'Enfant Plaza (Yellow and Green Lines)
- Mt. Vernon Square (Yellow and Green Lines), and
- Stadium Armory (Orange and Blue Lines)

Operation of 26 peak hour 6-car trains, each carrying 120 passengers per car, accommodates a maximum passenger throughput of **18,700** passengers through each portal. Using 8-car trains this rises to nearly **25,000** passengers per hour through each portal.

To expand this peak period passenger capacity even further, and accommodate passenger demand in excess of the 8-car train capacity in future years, Metro is proposing a change to its policy of truncating bus routes to serve as feeder routes to rail. The study has identified selected corridors that could, through investments in bus priority treatments, allow buses to operate as an express service, carrying passengers directly to the core with little impact on total travel time for most riders. Under this strategy, passengers would enjoy the benefit of a one-seat express ride into the core. This strategy can temporarily be used to supplement service in Metrorail corridors where crowding exists on trains.

Using the above strategies and constraint parameters, the following actions are necessary to maximize the capacity limits of the Metrorail system, and in turn will meet passenger demand to 2020 for the Orange Line and 2025 for all others:

1. Eight-car Train Operation: The operation of 8-car trains at 135-second intervals must begin by FY06 in order to meet market demand. While longer, more frequent trains, will entail more rail cars, additional rolling stock is not the complete answer to meeting projected demand. Investment in Metro's physical plant (rail car storage and maintenance facilities) and supporting infrastructure (such as power and train control systems) must be made to support 8-car train operations.

2. Access to Metro: Metrorail's ability to provide service to more residents of the region is currently constrained by limited access to stations. Immediate improvements are required in feeder bus services, pedestrian and bicycle access. Added parking at Metro stations and remote park-and-ride lots served by feeder bus service is also needed. In addition, improvements and expansions are required to the existing Metrobus fleet to serve the diverse needs of a growing population and an expanding service area.

3. Station Enhancements: Sixty percent of all Metrorail's patrons use 34% of the system's stations. Many of these stations will face overcrowded conditions as ridership grows over time. Improvements will be needed to move passengers from the platform to the mezzanine area and to the street level in order to ensure that platforms are clear before the next train arrives. Platform widening and additional fare collection equipment also will have to be accomplished at six of the 29 downtown core stations. Finally, major passenger flow conflicts exist between the Red and Yellow/Green Lines at Gallery Place-Chinatown station and between the Red and Orange/Blue Lines at Farragut North and Farragut West stations. Passenger walkway connections are proposed at these locations to help with the flow of passengers through major transfer points.

4. Line Connections: Efficient and productive operation of the Metrorail system using 8-car trains and transporting increasing numbers of riders every day will require improved service management and flexibility. The ability to "short turn" and reroute trains during rush periods is also an important component of efficient system operations and responds to future system expansion needs with cost effective operational capability.

Two line connections are proposed: one, between the Orange Line and the Blue Line at Rosslyn; and the other between the Blue Line and Yellow Line at the Pentagon. In addition, the construction of a pocket track is recommended on the Orange/Blue Lines between the Eastern Market station and the Potomac Avenue station to provide added storage and turnaround track. These improvements add flexibility into the system by aiding in several operational situations as needed. For example, in the event it was ever necessary under emergency circumstances, the line connections provide the capability to reroute trains and continue revenue operations if a portion of the core were shut down. Also, they provide increased flexibility for the provision of special service such as the July 4th and other special events.

Steps Required to Meet Market Demand

In order to achieve the passenger capacity demands of the system (i.e. match system capacity at the same time demand requires) the Core Capacity Study recommendations are grouped into four specific implementation steps that must be accomplished within defined timeframes. These steps meet combined market demand and capacity supply milestones through 2025 (except for the Orange Line, which is through 2020). The four steps are further grouped into two phases: Phase 1, which programs investments through 2010 and includes the steps required to achieve 50% 8-car train operations (Steps 1-3); and Phase 2 (Step 4, 2011-2025 investments), which programs the remaining investments required to achieve full operation of 8-car trains and accommodate market demands to 2020 on the Orange Line and 2025 on all others. The following summarizes each step:

- Step 1: By 2003, implement 6-car, peak-period train operations on all lines with full deployment of the 192 new rail cars currently being delivered to the Authority and implementation of associated actions.
- Step 2: By 2006, reconfigure Blue and Orange line service patterns to maximize utilization of Rosslyn and L'Enfant Plaza portals and accomplish 25% implementation of 8-car train operations and associated actions.
- Step 3: By 2010, complete 50% implementation of 8-car train operations, operate all Red Line trains between Shady Grove and Glenmont and implement associated actions.
- Step 4: By 2014, complete 100% implementation of 8-car train operations and associated actions.

It is projected that in 2020 ridership growth will have surpassed the point for any additional capability of the system to carry the peak passenger loads required to maintain market share on the Orange Line and soon after on the remaining lines. Once the system reaches the maximum carrying capacity, the only strategy available to expand capacity and continue keeping pace with demand is construction of additional Metrorail lines.

Investment Requirements

Expanding the capacity of the existing Metro system to accommodate a doubling of ridership, which will just maintain its vital market share in the region during the next 25 years, is a prudent and cogent investment. The existing system cost \$9.4 billion to construct over a period of thirty years; the \$4.5 billion investment in core capacity improvements represents half of that original cost and 20% of the price—more than \$22 billion—that would be required to build it today. This investment is in the context of the \$246 billion annual economy of the Washington Metropolitan area. The return on investment is compelling: an enhanced and expanded Metro system fully capable of meeting market demand, fostering economic vitality and an enhanced quality of life, meeting the mobility needs of this vibrant region as it continues to grow and providing requisite transit services during times of emergency.

The scope of projects and associated capital funding needs to implement the core capacity recommendations are set forth on the attached tables.

**Table 1
Capital Requirements Summary**

Capital Investment	Base 2002	Step 1: Redeploy 5000 series rail cars (2003)	Step 2: Optimize Rosslyn & L'Enfant portals (2006)	Step 3: Ramp up to 8 car trains (2010)	Step 4: All 8-car trains (2014)	2015 to 2025	Change From Base
Rail Cars	758	950	1,124 ¹	1,314 ³	1,520	1,520	762
Rail Yard Capacity	1,262	1,262	1,404 ²	1,524 ⁴	1,644	1,644	382
Rail Shop Capacity	126	126	174	200 ⁴	224	224	98
Buses	1,471	1,521	1,746	2,021	2,121	2,771	1,300
Station Access		20	80	160	240	480	480
Ridrship Growth		30	120	240	260	670	670
Bus TSM		0	75	150	150	150	150
Bus Garages	10	10	11	13	15	17	8 ⁵
Bicycle and Pedestrian Station Access		1	4	4	8	11	28
Parking Spaces	52,279	52,279	57,679	65,779	74,879	85,279	33,000
TPSS Upgrades							
4 MW to 7 MW			15	15	21		
6 MW to 9 MW			3	3			
Station Enhancements			2	1	2	1	6
Station Connections			1		1		2
Line Inter-connectivity			2	1			3

Notes:

- 1 - 100 rail cars funded by Largo and Dulles
- 2 - 42 storage spaces funded through Largo
- 3 - 42 rail cars funded by Dulles
- 4 - Yard and shop capacity funded by Dulles
- 5 - 7 new garages and a replacement garage for Royal St in Alexandria

**Table 2
Summary of Recommendations**

Step 1: 6-Car Trains (Complete By 2003)	Step 2: Optimize Portals (Complete By 2006)	Step 3: Ramping Up To 8 Car Trains (Complete By 2010)	Step 4: All 8 Car Trains (Complete By 2014)	Complete 2015-2025
<p>ACTIONS:</p> <ul style="list-style-type: none"> Accomplish implementation of 6-car peak period trains on all lines through redeployment plan for 5000 Series Cars Modify peak period headway from 6 to 7 minutes on all lines except the Red line (Red remains at 5 minutes during peak period). Set stage for 8 car train operation by initiating the necessary planning, design and engineering for traction power, train control and system upgrades Initiate expansion of 3 rail maintenance yards/shops Take delivery of 50 buses for system access and growth Enhance bicycle and pedestrian station access Initiate procurement process for 174 rail cars and 225 buses Initiate preliminary activities for two line connection projects 	<p>ACTIONS:</p> <ul style="list-style-type: none"> Reconfigure Blue and Orange Line service patterns to maximize utilization of Rosslyn and L'Enfant Plaza portals Accomplish 25% implementation of 8-car train operations Take delivery of 174 rail cars (24 unfunded) by end of 2004 Initiate installation of upgraded traction power, train control and system upgrades Complete expansion of 3 rail maintenance yards/shops Initiate design of 1 new rail maintenance yard/shop (Dulles-Loudoun) Take delivery of 225 buses for system access, growth and bus TSM services Add one bus garage and replace another Enhance bicycle and pedestrian station access Add 5,400 parking spaces Enhance 2 core stations (Metro Center, Gallery Place/Chinatown) Construct 1 station connector (Metro Center to Gallery Place/Chinatown) Initiate procurement process for 190 rail cars and 275 buses Complete construction of Orange-Blue and Blue-Yellow Line Connection projects 	<p>ACTIONS:</p> <ul style="list-style-type: none"> Take delivery of 190 rail cars Continue installation of upgraded traction power, train control and system upgrades Open 1 new rail maintenance yard/shop (Dulles-Loudoun) Initiate design of new Benning Road rail maintenance yard/shop Complete 50% implementation of 8-car train operations Operate all Red Line service to Shady Grove Take delivery of 275 buses for system access, growth and bus TSM Add 2 bus garages Enhance bicycle and pedestrian station access Add 8,100 parking spaces Enhance 1 core station (Union Station) Initiate procurement process for 206 rail cars and 200 buses Complete construction of Potomac Avenue Pocket Track 	<p>ACTIONS:</p> <ul style="list-style-type: none"> Complete 100% implementation of 8-car train operations Take delivery of 206 rail cars Complete installation of upgraded traction power, train control and system upgrades Complete new Benning Road rail maintenance yard/shop Take delivery of 200 buses for system access and expansion Add 2 bus garages Enhance bicycle and pedestrian station access Add 9,100 parking spaces Enhance 2 core stations (Farragut West, Farragut North) Construct 1 station connector (Farragut North to Farragut West) Implement Demand Management Strategies Initiate procurement process for 550 buses 	<p>ACTIONS:</p> <ul style="list-style-type: none"> Take delivery of 550 buses for system access and growth Add 2 bus garages Enhance bicycle and pedestrian station access Add 10, 400 parking spaces Enhance 1 core station (L'Enfant Plaza)
<p>RESULTS:</p> <ul style="list-style-type: none"> 25% increase in systemwide peak period service Meets passenger demand to 2006 	<p>RESULTS:</p> <ul style="list-style-type: none"> Accommodates Largo extension, NY Avenue station and provides long term capacity for Tysons Corner service Maximizes portal utilization Meets passenger demand to 2010 	<p>RESULTS:</p> <ul style="list-style-type: none"> Provides long term capacity for Dulles / Loudoun Co. service Meets passenger demand to 2014 	<p>RESULTS:</p> <ul style="list-style-type: none"> Utilizes full design capacity of the Metrorail system Meets passenger demand to 2020 	<p>RESULTS:</p> <ul style="list-style-type: none"> Meets passenger demand on all lines to 2025 or beyond, except the Orange Line which tops out in 2020

Table 3
Major Program Capital Costs by Phase
(Based on Obligation Schedule Requirements)

	Phase 1				Phase 2			Total
	Step 1 FY03	Step 2 FY04-06	Step 3 FY07-10	Phase 1 Subtotal	Step 4 FY11-14	FY 15-25	Phase 2 Subtotal	
1) 8-Car Train Operations								
Rail Cars	0.0	430.0	515.0	945.0	0.0	0.0	0.0	945
Associated Systems Support	3.0	132.0	127.0	262.0	82.0	51.0	133.0	395
Maintenance Yards / Shops	104.0	219.0	315.0	638.0	47.0	0.0	47.0	685
<i>SUBTOTAL - 8-Car Train Operations</i>	<i>107.0</i>	<i>781.0</i>	<i>957.0</i>	<i>1,845.0</i>	<i>129.0</i>	<i>51.0</i>	<i>180.0</i>	<i>2,025</i>
2) Access to Metrorail								
Buses	52.8	85.2	90.0	228.0	60.0	220.0	280.0	508
Bus Garages	8.0	72.0	80.0	160.0	80.0	80.0	160.0	320
Parking	16.0	145.0	180.0	341.0	140.0	156.0	296.0	637
Pedestrian & Bicycle Station Access	3.0	12.0	28.5	43.5	40.5	66.0	106.5	150
<i>SUBTOTAL - Access to Metrorail</i>	<i>79.8</i>	<i>314.2</i>	<i>378.5</i>	<i>772.5</i>	<i>320.5</i>	<i>522.0</i>	<i>842.5</i>	<i>1,615</i>
3) Station Enhancements								
Station Enhancements	1.0	119.0	150.0	270.0	0.0	80.0	80.0	350
Station Connections	1.0	69.0	80.0	150.0	0.0	0.0	0.0	150
<i>SUBTOTAL - Station Enhancements</i>	<i>2.0</i>	<i>188.0</i>	<i>230.0</i>	<i>420.0</i>	<i>0.0</i>	<i>80.0</i>	<i>80.0</i>	<i>500</i>
4) Line Connections								
Orange/Blue Line Connection at Rosslyn	0.0	125.0	0.0	125.0	0.0	0.0	0.0	125
Blue/Yellow Line Connection at Pentagon	0.0	150.0	0.0	150.0	0.0	0.0	0.0	150
Potomac Avenue Pocket Track	0.0	0.0	80.0	80.0	0.0	0.0	0.0	80
<i>SUBTOTAL - Line Connections</i>	<i>0.0</i>	<i>275.0</i>	<i>80.0</i>	<i>355.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>355</i>
Core Capacity / SAP Total Program (\$FY 02)	188.8	1,558.2	1,645.5	3,392.5	449.5	653.0	1,102.5	4,495
<i>Inflated Dollars</i>	<i>197.7</i>	<i>1,696.9</i>	<i>2,122.6</i>	<i>4,017.2</i>	<i>609.0</i>	<i>1,075.2</i>	<i>1,684.3</i>	<i>5,701</i>

Table 4
Major Program Capital Costs by WMATA Fiscal Year (FY 03-14)
(Based on Obligation Schedule Requirements)

	FY 03	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13
1) 8-Car Train Operations											
Rail Cars	0.0	0.0	430.0	0.0	0.0	0.0	0.0	515.0	0.0	0.0	0.0
Associated Systems Support	3.0	132.0	0.0	0.0	0.0	0.0	108.0	19.0	0.0	0.0	0.0
Maintenance Yards / Shops	104.0	109.0	3.0	107.0	112.0	0.0	5.0	198.0	0.0	47.0	0.0
<i>SUBTOTAL - 8-Car Train Operations</i>	<i>107.0</i>	<i>241.0</i>	<i>433.0</i>	<i>107.0</i>	<i>112.0</i>	<i>0.0</i>	<i>113.0</i>	<i>732.0</i>	<i>0.0</i>	<i>47.0</i>	<i>0.0</i>
2) Access to Metrorail											
Buses	52.8	0.0	30.0	55.2	0.0	0.0	90.0	0.0	0.0	60.0	0.0
Bus Garages	8.0	72.0	0.0	0.0	8.0	72.0	0.0	0.0	8.0	72.0	0.0
Parking	16.0	145.0	0.0	0.0	19.0	161.0	0.0	0.0	14.0	126.0	0.0
Pedestrian & Bicycle Station Access	3.0	3.0	4.5	4.5	6.0	7.5	7.5	7.5	9.0	9.0	10.5
<i>SUBTOTAL - Access to Metrorail</i>	<i>79.8</i>	<i>220.0</i>	<i>34.5</i>	<i>59.7</i>	<i>33.0</i>	<i>240.5</i>	<i>97.5</i>	<i>7.5</i>	<i>31.0</i>	<i>267.0</i>	<i>10.5</i>
3) Station Enhancements											
Station Enhancements	1.0	119.0	0.0	0.0	0.0	0.0	20.0	130.0	0.0	0.0	0.0
Station Connections	1.0	69.0	0.0	0.0	0.0	0.0	10.0	70.0	0.0	0.0	0.0
<i>SUBTOTAL - Station Enhancements</i>	<i>2.0</i>	<i>188.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>30.0</i>	<i>200.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
4) Line Connections											
Orange/Blue Line Connection at Rosslyn	0.0	25.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blue/Yellow Line Connection at Pentagon	0.0	30.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Potomac Avenue Pocket Track	0.0	0.0	0.0	0.0	16.0	64.0	0.0	0.0	0.0	0.0	0.0
<i>SUBTOTAL - Line Connections</i>	<i>0.0</i>	<i>55.0</i>	<i>220.0</i>	<i>0.0</i>	<i>16.0</i>	<i>64.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
Core Capacity / SAP Total Program (\$FY 02)	188.8	704.0	687.5	166.7	161.0	304.5	240.5	939.5	31.0	314.0	10.5
<i>Inflated Dollars</i>	<i>197.7</i>	<i>753.1</i>	<i>754.1</i>	<i>189.7</i>	<i>204.9</i>	<i>366.3</i>	<i>301.1</i>	<i>1,250.4</i>	<i>41.0</i>	<i>410.4</i>	<i>14.5</i>

Table 4 (continued)
Major Program Capital Costs by WMATA Fiscal Year (FY15-25)
(Based on Obligation Schedule Requirements)

	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1) 8-Car Train Operations											
Rail Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Associated Systems Support	0.0	0.0	0.0	0.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance Yards / Shops	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>SUBTOTAL - 8-Car Train Operations</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>51.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
2) Access to Metrorail											
Buses	60.0	0.0	0.0	60.0	0.0	0.0	60.0	0.0	0.0	40.0	0.0
Bus Garages	0.0	4.0	36.0	0.0	0.0	0.0	0.0	4.0	36.0	0.0	0.0
Parking	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	140.0	0.0	0.0
Pedestrian & Bicycle Station Access	12.0	12.0	10.5	7.5	7.5	4.5	4.5	3.0	3.0	1.5	0.0
<i>SUBTOTAL - Access to Metrorail</i>	<i>72.0</i>	<i>16.0</i>	<i>46.5</i>	<i>67.5</i>	<i>7.5</i>	<i>4.5</i>	<i>64.5</i>	<i>23.0</i>	<i>179.0</i>	<i>41.5</i>	<i>0.0</i>
3) Station Enhancements											
Station Enhancements	0.0	10.0	70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Station Connections	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>SUBTOTAL - Station Enhancements</i>	<i>0.0</i>	<i>10.0</i>	<i>70.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
4) Line Connections											
Orange/Blue Line Connection at Rosslyn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Blue/Yellow Line Connection at Pentagon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Potomac Avenue Pocket Track	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>SUBTOTAL - Line Connections</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
Core Capacity / SAP Total Program (\$FY 02)	72.0	26.0	116.5	67.5	58.5	4.5	64.5	23.0	179.0	41.5	0.0
<i>Inflated Dollars</i>	<i>95.5</i>	<i>39.4</i>	<i>186.0</i>	<i>97.1</i>	<i>98.8</i>	<i>7.7</i>	<i>100.9</i>	<i>41.3</i>	<i>338.9</i>	<i>69.7</i>	<i>0.0</i>