of congestion in the County that enables the Council to make informed decisions on where to target transportation infrastructure and operational investment during the next state and county budget cycles. The report is presented annually, and because this is the first report contains a significant amount of new information, it is being presented well prior to September 1. As the report is given again in upcoming years, the depth and breadth of the data and analysis will increase.

Even though this report is primarily on the subjects of congestion and development approvals, the process of prioritizing transportation improvements is *inextricable* from the broader planning goals and policies set forth by the Planning Board and County Council, which are codified in the various area and functional master plans and sector plans for the County. The principles espoused in those documents and in the General Plan, such as focusing investment in the County's designated growth areas, providing a safe and multimodal (highways, transit, bikeways and sidewalks) transportation system, protecting environmentally sensitive areas, investing in the County's urbanized centers, providing geographic balance in transportation investment, and others still are considered in preparing the priority lists of projects contained in the report, even though they are not explicitly enumerated in the Council resolution. To ignore these principles would be disingenuous to the citizens invested in the County's planning process.

3. Development Approvals and Planned Transportation Improvements

According to the Round 6.3 Cooperative Forecasts, Montgomery County will add 23,000 households (about a 7% increase) and 45,000 jobs (about a 9% increase) during the years 2005 to 2010. Table 3.1 shows the forecasts for the years 2000-2010

Table 3.1:Round 6.3 Cooperation Forecasts 2000-2010, County Totals

2000 Round 6.3 Households 325,000	**2005** Round 6.3 Households 347,000	**2010** Round 6.3 Households 370,000
2000 Round 6.3 Jobs 545,000	**2005** Round 6.3 Jobs 585,000	**2010** Round 6.3 Jobs 630,000

In terms of absolute growth, the five fastest growing residential policy areas from 2000 to 2010 are Rockville, Clarksburg, Gaithersburg, Germantown West, and the Rural areas.[1] The fastest growing employment areas are Rockville, Fairland / White Oak, Bethesda CBD, Gaithersburg, and Germantown East. In terms of percentage growth, the five fastest growing residential policy areas from 2000 to 2010 are Twinbrook, Germantown Town Center, Clarksburg, White Flint, and Shady Grove. The fastest growing employment areas are Clarksburg, Germantown Town Center, Germantown East, R&D Village, and Germantown West. The complete breakdown of job and household forecasts by policy area may be found in Appendix A.

Figure 3.1: Residential Pipeline Units Approved from May 1, 2003 to April 30, 2004 by Policy Area (total approved units = 6355)

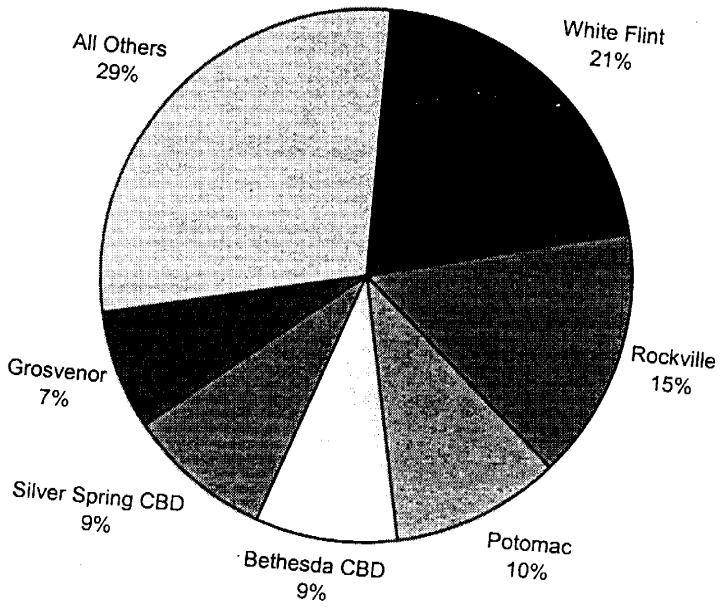


Figure 3.1 shows the combined number of new single-family, townhouse, and multi-family housing units approved during the 12-month period beginning on May 1, 2003 and ending on April 30, 2004, by policy area. Nearly 70% of the residential development approved during the past year was located in just six policy areas: White Flint, Rockville, Potomac, Bethesda CBD, Silver Spring CBD, and Grosvenor. Residential development approved during the past year represents approximately 25% of the total remaining residential development pipeline. The location of the past year's residential approvals generally mirrors that of the total remaining residential pipeline, with the exception of Potomac, where the approved units in the past year are

[1] The Rockville and Gaithersburg Policy Areas are the municipal boundaries of the City of Rockville and City of Gaithersburg, respectively. Neither city is subject to the County's growth regulations.

almost all part of the Fortune Parc development.[2] Figure 3.2 shows the information from Figure 3.1 on a map of the County for all policy areas.[3] The complete data table by policy area is in Appendix B.

The number of peak hour automobile trips generated by the past year's residential development approvals, shown in Figure 3.3, generally mirrors the location of the past year's development approvals, except in the Metro Station Policy Areas, where the trip generation rates are lower because of the availability and use of transit, particularly Metrorail. The complete breakdown of residential trip generation may be found in Appendix C.

Figure 3.4 shows the combined non-residential (office, retail, industrial, other, warehouse, research and development, mixed-use) development approved between May 1, 2003 and April 30, 2004 (inclusive) by policy area. Nearly 90% of the approved non-residential development approved in the past year is located in just five policy areas: White Flint, Potomac, Fairland / White Oak, Rockville, and Wheaton CBD. Non-residential development approved during the past year represents approximately 12% of the total remaining non-residential development pipeline. The location of the past year's non-residential approvals generally mirrors that of the total remaining non-residential pipeline, with the exception of Potomac, where the approved square-footage in the past year is almost all part of the Fortune Parc development.[4] Figure 3.5 shows the information from Figure 3.4 on a map of the County for all policy areas.

[2] Two significant residential developments were approved in May 2004, after the end of the reporting period: Twinbrook Commons (approximately 1,100 units in the Twinbrook Policy Area), and Cabin Branch (approximately 2,100 units in the Clarksburg Policy Area).

[3] The intensity of the development in the rural areas is distorted in Figure 3.2 because of size difference between the rural areas and the rest of the county's policy areas.

[4] One significant non-residential development was approved during May 2004, after the end of the reporting period: Cabin Branch (1.5 million sf in the Clarksburg Policy Area).

Figure 3.2: Montgomery County, Maryland Residential Development Approvals from May 1, 2003 to April 30, 2004 by Policy Area

*Unit totals shown on the map are reflective of development approved from May 1, 2003 to April 30, 2004

Data Source: M-NCPPC Residential Pipeline Report, 04/30/2004

Figure 3.3: Peak-Hour Trips Generated by Residential Development Approved from May 1, 2003 to April 30, 2004 by Policy Area

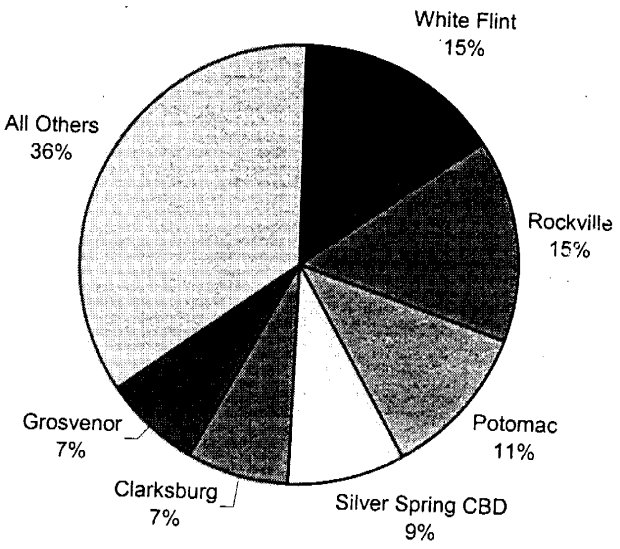
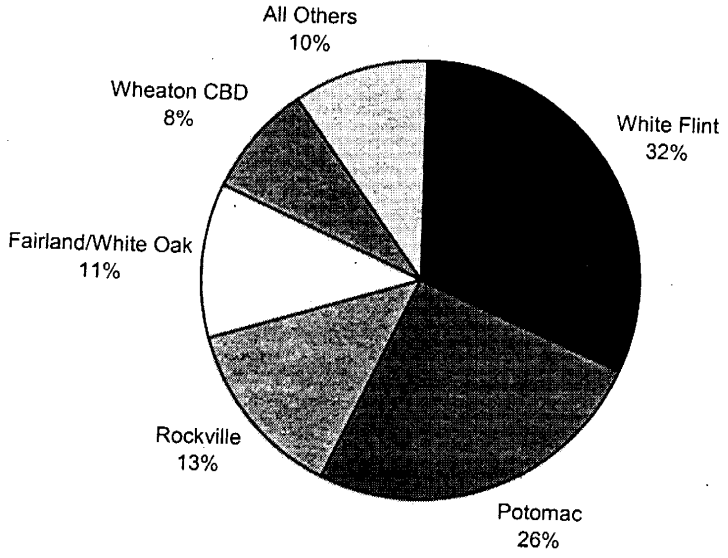


Figure 3.4: Non-residential Pipeline Square-footage Approved from May 1, 2003 to April 30, 2004 by Policy Area (total approved 3.3 million sf)



The complete breakdown of the past year's non-residential development approvals by policy

area may be found in Appendix D.

There was insufficient time to include peak hour automobile trips generated for the past year's non-residential development approvals in this year's ADAC report. Due to the number of specialized trip generation rates used for the diverse types of non-residential land uses, reporting these data requires an individual review of hundreds of plan files. As more of this information is loaded with each case file into the development review database system, the ability to report on non-residential trip generation quickly and accurately should increase. Information on non-residential trip generation will appear in next year's ADAC report.

In general, non-residential trip generation, like residential trip generation, should mirror the location of the actual developments; however, more variation in the overall trip generation for non-residential development should be expected due to the diversity of uses and trip generation rates that reflect potential for trip chaining and other trip making behavior that is less uniform (in the aggregate) than that of residential development.

Montgomery County's transportation infrastructure constantly evolves to proactively respond to changing growth patterns. Figures 3.6 through 3.9 show the major construction projects and facility planning studies for the county contained in the State's Consolidated Transportation Program (CTP) and the County's Capital Improvement Program (CIP). Lists of the projects located on Figures 3.6 through 3.9 may be found in Appendices E through H.

The maps clearly illustrate that recent investment in transportation infrastructure improvements has closely tracked or anticipated future development, as a majority of the projects shown are located in the policy areas receiving the most new development shown in Figures 3.1 / 3.2 and 3.4 / 3.5. However, prioritizing future transportation improvements when resources are limited and growth is continuing in many parts of the county requires a different set of criteria than merely channeling transportation investment into growing areas. Decision makers also need to have information on how the existing transportation network is performing both in the growth areas and in the county as a whole, and should consider the county's planning goals as well.

4. Primer on Measuring and Tracking Traffic Congestion

Measuring and tracking traffic congestion requires the consistent use of various transportation related performance measures. Performance measures for transportation should be similar to other familiar performance measures for worker productivity, industrial output, government effectiveness, or any other arena where performance measures are used for evaluation and investment decisions. The characteristics of a good performance measure apply broadly, regardless of what context they are applied to or what the desired outcome of each individual measure may be for the appropriate decision makers. A good performance measure is:

Understandable: How the performance measure is constructed, calculated, applied, and interpreted or analyzed should be easily comprehensible to decision-makers and the general public.