

MEMORANDUM

June 25, 2007

TO: Management and Fiscal Policy Committee
Planning, Housing, and Economic Development Committee

FROM: Michael Faden, Senior Legislative Attorney *MF*
Go Glenn Orlin, Deputy Council Staff Director

SUBJECT: Overview of Growth Policy issues

This is each Committee's first worksession on the various elements included in the Planning Board's Final Draft 2007-2009 Growth Policy. The full Council has received a briefing from Chairman Hanson and Karl Moritz on June 19, and by the time of this meeting will have held two nights of public hearings (June 19 and 26).

Council staff is reviewing the testimony and the correspondence received. We are also reviewing the Planning staff's response to the questions raised by Councilmembers as of June 22 (attached). On June 24 Council Vice President Knapp submitted a set of questions to which the Planning staff will be responding; these questions are at the back of this packet.

As a reminder, here is the tentative schedule for the remaining committee and Council worksessions before the August recess. All meetings will be televised and held in the 7th Floor Council Hearing Room:

Monday, July 2, 9:30 am	MFP meeting (impact and recordation taxes)
Monday, July 2, 2:00 pm	PHED meeting (staging growth)
Monday, July 9, 9:00 am	Joint PHED/MFP meeting (overlapping issues)
Monday, July 9, 10:00 am	PHED meeting (staging growth)
Monday, July 9, 2:00 pm	PHED meeting (staging growth)
Thursday, July 19 (time TBD)	Council worksession
Tuesday, July 24 (time TBD)	Council worksession
Tuesday, July 31 (time TBD)	Council action

This worksession is an opportunity for the Committee members to make requests for alternatives to be developed to the various elements of the Planning Board's proposal. The elements are:

- Policy Area Mobility Review (PAMR)
- Local Area Transportation Review
- Public School Adequacy Test
- Testing other public facilities for adequacy
- Transportation impact tax methodology for calculating rates; credits; other issues
- Public school impact tax methodology for calculating rates; credits; other issues
- Recordation tax rates and exemption
- Design issues
- Sustainability issues
- Life of an adequate public facilities approval
- Schedule for developing future Growth Policies

Arguably, the most complex of these issues is the proposed methodology for policy area transportation review, PAMR. Council staff has requested Planning staff to spend time in this worksession explaining the details of how PAMR works, using several examples. In evaluating PAMR, it is important for the Council to separate its *methodology* (what factors are measured and how are they measured) from the *standards* used to distinguish whether an area fails or doesn't fail. If the Council likes the methodology but doesn't like the result, then it could adjust the standards to reach a different result.

Growth Policy Responses to Councilmember Questions (As of June 22, 2007)

GENERAL ISSUES

Councilmember Praisner: Please provide all written materials from the Growth Management Speakers Series.

Response: The materials are attached. Several speakers did not have printed materials, but we have also included a set of CDs with the audio portion of most of the talks.

Councilmember Praisner: How should requests for exemptions be handled? What are the Planning Board's recommendations for grandfathering?

Response: The Planning Board did not develop extensive guidelines for considering exemptions, but the Board's evaluation of specific exemptions is illustrative (and there is some discussion on page 195 of the report). That review suggests that the Board would view exemptions for individual projects with skepticism, and would support exemptions of classes of development (e.g., hospitals) only when it can be shown that the development type serves a public purpose and cannot bear increased development costs. The Board has not proposed exemptions to Policy Area Mobility Review. The Board recommends continuing to charge hospitals an impact tax of \$0 and recommends keeping the impact tax on places of worship at the current rate. However, the Board recommends charging bioscience facilities, now charged \$0, the full applicable rate (office, industrial, etc).

The Board noted that the development community has been "on notice" since at least December that a more stringent Growth Policy and higher impact taxes are a possibility. The Board did not propose any grandfathering of development projects that would be subject to Policy Area Mobility Review. The Board suggests phasing the impact tax increases: 25 percent of the increase in 3 months, 50 percent of the increase in 6 months, and the full increase in 1 year.

Councilmember Praisner: What other options are there for dealing with areas that are controlled by master plans without staging elements within the plan?

Response: Until 2003, the County relied on the Growth Policy, primarily Policy Area Transportation Review, to stage development in areas where there is no staging language in the master plan or sector plan. This was the main alternative to staging elements in plans. The Planning Board is not recommending that PAMT have staging ceilings, so it doesn't stage development to the same degree as Policy Area Transportation Review did.

Councilmember Leventhal: Does any other jurisdiction in the United States utilize this combination of high impact taxes plus stringent traffic and school tests that may require the payment of additional fees before construction is allowed?

Response: There are jurisdictions in Maryland, California and Florida that test public facilities adequacy and impose impact taxes or fees. The Maryland counties with both impact fees and APFOs include Anne Arundel, Prince George's, Frederick, Charles, and Queen Anne (in 2005 there were 25 Maryland jurisdictions with APFOs). A number of California jurisdictions, home to the highest impact taxes in the country, have traffic and school adequacy requirements. Florida requires "concurrency" of public facilities with development – thus testing schools, transportation, and other facilities – and it is common for Florida counties to impose impact fees. There are several towns in North Carolina (Cary, Chapel Hill) that have an APFO and charge impact fees.

Councilmember Leventhal: Will the effect of the proposed new schools and traffic tests be to throw any areas into moratorium? If so, which ones?

Response: The proposed new schools test would not put any area into moratorium. The proposed new transportation test would find one County policy area¹ to be inadequate – Germantown East – but this finding would not impose a moratorium since development approvals could continue, albeit with an increased level of contribution from the development toward transportation infrastructure.

Councilmember Leventhal: Is the real goal of the proposed growth policy to raise revenue for infrastructure, or to limit growth? If the goal is to raise revenue, how much does the Planning Board estimate can be raised, and over what period of time?

Response: The primary goal of the new Growth Policy is to improve the likelihood that the delivery of infrastructure will be able to keep pace with growth. This is accomplished by requiring new development to pay the incremental cost of infrastructure needed to support it. The goal is not to raise a specific amount of revenue, nor achieve a particular growth rate. The closer development comes to paying its marginal cost of growth, the better able the county will be in providing the accompanying infrastructure in a timely fashion.

Councilmember Leventhal: Is this revenue intended to address the infrastructure needs of current residents, or only those new infrastructure needs generated by the new residents?

Response: The revenue raised from impact taxes is used to provide additional capital facilities necessary to support residents purchasing new homes and workers in new non-residential projects. Most of the revenue raised from the recommended increase in the

¹ Gaithersburg City is also found to be inadequate, although, of course, a moratorium is not a possibility since the Growth Policy does not apply.

recording tax will support infrastructure needs that arise from the turnover in existing homes such as additions and modernizations to existing schools.

Councilmember Leventhal: If the goal is to slow growth, what would be the effect of doing so on homebuilding in neighboring jurisdictions? If growth in Montgomery County slows as a result of the new taxes and growth tests, what would be the effect on growth in neighboring jurisdictions, and what effect would that growth have on traffic into and through Montgomery County?

Response: The Planning Board is not recommending these changes with the goal of slowing growth. Economic studies reviewed by the Planning Board indicate that impact taxes are not effective at slowing growth or affecting locational decisions, even when they are substantial. San Diego County enacted impact fees of \$80,000 in its rural areas with the expectation that residential development in those areas would slow. They found that this did not occur, in part because the impact fee was small when compared to the prices builders could expect for new homes in the rural area.

Councilmember Trachtenberg: As drafted, the Growth Policy could enable very different outcomes in terms of growth, sustainable development, form and function (i.e., design) and equity. What does the Planning Board envision as the default outcome to be achieved by means of this draft Growth Policy?

Response from Dr. Hanson: The overall vision for the future of the County is contained in the General Plan, as amended by area, sector, and functional master plans. Growth policy is one tool for implementing that vision. It is not the plan itself. The "Growth Policy" has primarily been a device for staging growth so that it roughly coincides with the provision of facilities needed to serve it adequately, using a variety of operational definitions of "adequacy." For much of the first two decades of the Growth Policy, the primary tool to accomplish this goal was to impose slow development through the use of temporary moratoria. This approach was best suited to managing the concurrency of development and facilities on raw land. The proposed 2007 Growth Policy seeks to move the County toward an approach that emphasizes the sustainability of development—both new and existing—in recognition that with some notable exceptions, such as Clarksburg, much of future growth will occur in the form of infill and redevelopment of areas where the basic infrastructure is in place, but may need enhancement, or will need to be designed to reduce its impact on facilities, or even to increase capacity of some systems. It, therefore, has placed emphasis on three elements: First, increasing fiscal sustainability by providing impact taxes at levels that provide funding for the incremental or marginal increases in facility capacity—principally transportation and school facilities. Second, emphasizing the importance of sustainable design to improve the way communities work and relate to the natural environment. Third, to develop indicators of sustainability that will allow us to measure how well our policies are working.

It may well be that there is a need to alter our established vision of what the County should be and how it will grow. Historically, we have done that through the planning program established by the Council in consultation with the Planning Board, and ultimately, through the adoption of new plans and policies. In a County of nearly a million people, this is not done with as much dispatch as we might like, but the process has resulted in a deep consensus on some matters, such as the overall form of development, key elements of growth strategy, such as protection of the Agricultural Reserve, development of corridor cities, and more recently, a focus on transit-oriented growth.

Councilmember Trachtenberg: How should the Planning Board support the Council in creating the County's policy vision and overseeing its implementation?

Response from Dr. Hanson: This is best done through the process of developing master plans, analysis of the CIP in light of those plans and the biennial growth policy, the adoption of land use and related regulations that are designed to implement master plans, and the administration of those policies in decisions on specific projects. The County's vision of its future has evolved and is continuing to do so, as we increase our understanding of our economic role and of the techniques that are available for shaping and managing growth and change. The analysis of our corridors and the role their several centers play in the future of the county—for housing, for economic activity, and for environmental impacts is likely to result in some shifts in emphasis and approach. Planning is not a simple process of deciding for all time what we want to be, holding that constant, and then mechanically "implementing" that idea. Rather, it is a system of constant feedback from the people, from experience, and from advances in knowledge.

Councilmember Trachtenberg: How should the Planning Board engage a broader cross-section of the public in a conversation about the County's vision for growth?

Response from Dr. Hanson: We are constantly working to broaden participation in the planning process and in regulatory activity. We have a pretty good system of engaging people in the regulatory process because of the notice system that is used. We continually experiment with various ways of broadening participation in planning, with special concern for engaging many of the county's newer citizens, many who come from countries and cultures that are innately (and justly) suspicious of government. We have had some recent successes in multi-cultural engagement in Germantown, and are applying some lessons learned there to work that is commencing in the Takoma-Langley area. There is, of course, a knowledgeable core of citizen activists who participate in planning matters, and we seek wide participation in master planning exercises through advertising and direct contact, charrettes and use of advisory committees, etc. We will also begin experimenting with some participation technologies that are designed to allow people to register their opinions on options. Ultimately, good planning involves deliberation and reasoning rather than reactions.

Councilmember Trachtenberg: What procedures should be developed to ensure coordination among Planning, Economic Development, Housing and Community Affairs, and Environmental Protection – agencies with key roles in fully implementing the County’s vision for growth?

Response from Dr. Hanson: All of these agencies and others are asked to comment on plans during their preparation, at their draft stages, and when they are presented to the Board and Council. There is a regular process for their engagement in the regulatory process, and they have representatives on the Development Review Committee, which reviews all subdivision and site plans. Some of them have specific responsibilities under law, which the Board must follow or accept in approving a project. The CAO and the Planning Board Chairman also hold a monthly meeting of the major department heads involved in planning and regulation to coordinate and anticipate issues that need to be jointly addressed. This does not mean that there are not important differences on significant issues. In most cases these are worked out either at the departmental level or, if necessary, in discussions between the heads of the respective organizations, or by the Board or Council.

The Planning Board’s recommendations address interagency coordination in a number of ways. The recommended biennial growth policy process is anticipated to greatly improve the information available to County agencies as they prepare capital budgets. The proposed “design summit” should, at minimum, provide a neutral forum for discussing issues of civic design when there isn’t a specific project under review.

Councilmember Trachtenberg: I agree with my staff that it would be helpful for the Planning Board to revise the Growth Policy to address these questions. I recognize the original charge outlined by Council might not have been comprehensive enough to produce what I now recognize as vital to the formation of consensus. I believe it is premature to debate such items as impact taxes and recordation fees; however, I am open to some modifications on both the proposed school and transportation tests which are equally important.

Response from Dr. Hanson: The course you suggest could involve a re-evaluation of the General Plan and would, if agreed to by the Council, involve a major revision of the 2008 work program just approved by the Council.

Councilmember Trachtenberg: What does Dr. Hanson believe are appropriate objectives by which the Planning Department’s actions within the four key areas of growth, sustainability, design, and infrastructure obligations ought to be guided?

Response from Dr. Hanson: The General Plan and master plans establish the objectives, along with other particular policies adopted by the Council.

Councilmember Trachtenberg: What does Dr. Hanson believe are the appropriate, quantifiable measures of success relating to each of these objectives, such that all key stakeholders can evaluate the extent to which the County's planning efforts are working?

Response from Dr. Hanson: I have some ideas about appropriate indicators, but the way to choose them is through a public deliberative process, focusing on a discrete set for which data are available. The Growth Policy suggests a few, which is a place to start.

Councilmember Trachtenberg: What sort of development does Dr. Hanson believe would occur from implementation of the first sections of the Draft Policy; and how and why would that development support the sustainability and design excellence goals of the Policy's final sections?

Response from Dr. Hanson: Assuming adoption of the full policy, projects should be marginally better-designed, and they should provide the funding needed for the infrastructure to support them.

Councilmember Trachtenberg: How would Dr. Hanson articulate the Planning Board's vision of how the County ought to grow over the next two years covered by the Draft Policy, and beyond?

Response from Dr. Hanson: This policy will have almost no effect on development that occurs on the ground during the next 2 years. It is a policy that governs the approval of subdivisions. Once approved, development projects will begin to show up on the ground in 2-3 years.

Councilmember Trachtenberg: Would a majority of Councilmembers share Dr. Hanson's vision?

Response from Dr. Hanson: I hope that as members examine the policy suggestions of the Board they will be persuaded that it is in the public interest.

Councilmember Trachtenberg: What does Dr. Hanson believe Planning would need to better support the role of the County Council in (i) crafting the County's underlying policy vision and (ii) overseeing the implementation of that vision?

Response from Dr. Hanson: Patience, enough time to do good work, and a few additional resources.

Councilmember Trachtenberg: What could Planning be doing differently to better engage a broader section of the public in a conversation on potential growth policies --- and to do so in a way that yields meaningful discussions of form and function rather than arcane discussions of such things as floor area ratio, critical lane volume, and the like?

Response from Dr. Hanson: Broader engagement will require longer time frames for policy development, along with a few new technological tools (but they are merely instruments, and do not produce good ideas). While arcane, instruments like zones, and measurement techniques, models, etc., are essential to the making growth policy operational.

Councilmember Trachtenberg: Request a memo from Dr. Hanson which demonstrates a new process for attaining more effective public engagement, one that includes proposed metrics for success.

Response from Dr. Hanson: I suggest reading a chapter of my book, *Civic Culture and Urban Change* (Wayne State University Press, 2003) which discusses various strategies for broad public engagement in governance. I do not think there are any “metrics” by which successful public engagement can be usefully measured. One can tell if it has occurred, however.

Councilmember Trachtenberg: BRAC has been termed by many as having one of the most significant impacts on Maryland development since the home mortgage interest deduction. Why is it not mentioned in the Draft Growth Policy?

Response from Dr. Hanson: We do not yet have a specific policy response to BRAC. The medical center will be subject to mandatory review, but is not required to take our suggestions. I serve on the BRAC committee, supported by staff. The *Housing Element* of the General Plan and the *Battery Lane Sector Plan*, in the work program will establish policies that the growth policy will implement.

Planning staff also notes that the general approach to PAMR as a regulatory tool is to include approved development in the PAMR horizon year, as stated on page 112 of the Final Report. The definition of approved development will require some judgment. For the purposes of the analysis in the Final Report, staff did assume 2,600 jobs at the Naval Medical Center Campus in addition to already approved development throughout the County (and interpolated MWCOG cooperative forecast demographics elsewhere in the region).

Councilmember Trachtenberg: Given current staffing and expected attrition, what planning and oversight Departmental activities required of Planning staff does Dr. Hanson believe to be most vulnerable over the next two years? What plans has the Board put in place to minimize those staff vulnerabilities?

Response from Dr. Hanson: This will be addressed in the 2009 budget. Of course, one important strategy is to attract and retain the best possible staff. Over the past year, we have made remarkable gains in staffing levels and currently have one of the lowest vacancy rates in the past decade or more.

TRANSPORTATION TESTS

Policy Area Transportation Tests, Generally

Councilmember Praisner: When the Council eliminated Policy Area Review it did so after rejecting the Planning Board's proposal for significant changes to the Growth Policy. Did the Commission consider that recommendation again? If not, why not?

Response: The Planning Board's 2003 proposal was, in part, a response to the concern that Policy Area Transportation Review had become too complicated, too numbers-driven, and out of touch with public perceptions of adequacy. Among the criticisms of the Board's 2003 proposal (of a preliminary plan approval rate) was that it was only indirectly tied to measures of transportation and school adequacy.

Although the Board did not revisit the 2003 proposal, the Board's recommendations address aspects of that proposal that raised concerns. Both the PAMR and the School Test reflect an attempt by the Board to a) directly measure transportation and school adequacy and b) do so in a way that better reflects how the public perceives transportation and school levels of service.

Councilmember Praisner: The Commission also had a secondary proposal that was never submitted to the Council. Did the Commission consider that proposal this time? If not, why not? Please submit to the Council a copy of the proposal and a timeframe for how/if it could be considered.

Response: Staff evaluated seven different alternative tests for supplementing the LATR test, as described on pages 126 through 129 of the Final Report. One alternative of particular interest, the "proportional staging" methodology, is described in greater detail on pages 154 through 157 of the Final Report (the results are shown in tables on pages 158-160). While this method was discussed by the County Council in their 2005 review of the Growth Policy and appears to be very coherent, staff has found that it has a fatal flaw in that it bases all staging on a theoretical "end-state" condition for both land use and transportation systems that doesn't really exist, and that therefore, any change to a transportation element in a master plan would throw off the entire process.

For example, *adding* a transportation improvement to the plan for an area would immediately *decrease* the proportion of master-planned transportation improvements that have been completed. The Planning Board included this analysis and this finding in the April Growth Policy "interim report" and indicated that it would not be pursuing this concept further.

Councilmember Floreen: Ask the speakers invited to the Growth Management Speakers Series if they know of other jurisdictions that use a two-tier test like the ones proposed.

Response: Each speaker's invitation included this question although most of the speakers did not address it. At least one speaker specifically highlighted how Florida counties are using both area-wide and local transportation analysis. However, it is generally agreed that the use of a two-tiered test is uncommon.

To achieve a concurrency finding, the Florida jurisdictions have used procedures that account for roadway and transit capacity in a variety of methods. We identified several of these methods in our work on alternative procedures as shown on page 126 of the Final Report. All of the Florida jurisdictions have found problems similar to those we are grappling with: how to ensure growth standards do not preclude high density development in desirable locations; how to account for high quality transit; and how to determine the right number of future years to use in accounting for funded improvements. We have not found any "magic wands" in other localities, just a general sense that the issues being addressed in this Growth Policy discussion are those found in other locations and that we have incorporated what we have learned from our research in the materials we have presenting the Board and Council.

Councilmember Floreen: How do the transportation tests work with the new Road Code?

Response: These recommendations are entirely consistent. Both the Road Code and the Growth Policy pursue a deliberately multi-modal approach to transportation. Both approaches consider motorist speeds, but from different perspectives. Both the free flow and congested speeds in the PAMR Relative Arterial Mobility measure are more greatly affected by operational elements (primarily traffic signal delays) than by the target speed being discussed in the Road Code. And the relationship between free flow and congested speed in the PAMR remains constant regardless of the free flow speed. Planning staff will be prepared to discuss this issue with the PHED Committee.

Traffic Impacts of Certain Types of Development

Councilmember Praisner: What is the latest thinking regarding traffic impacts and calculations from mixed use development? Have you ever heard of the terms "churners and surgers" as it relates to mixed use development traffic patterns?

Response: The iterative relationship between land use and transportation is evolving, and the value of density, diversity, and design (the "Three Ds") is a continued focus of study. Clearly, each of the three Ds has a positive effect in reducing vehicle travel on a per-capita basis, both in facilitating non-auto modes

from a trip generation perspective as well as facilitating shorter trip lengths for those trips made via the auto mode.

Some relationships, particularly regarding density and diversity, are long-standing:

- The fact that larger developments have lower per-unit vehicle trip generation rates has been incorporated in our LATR Guidelines for years.
- Mixed-use developments can apply the ITE Trip Generation Manual procedure for “internal trip capture” in our development review process.

Both private and public sector research continually examines these relationships, with jobs/housing and retail/housing proximity relationships being featured recently in transportation planning literature. Two current and comprehensive Transportation Research Board studies promise to incorporate and validate the latest thinking surfacing in these independent studies:

- NCHRP Project 08-51, “Enhancing Internal Trip Capture Estimation for Mixed-Use Developments”, is an update to NCHRP Report 323 and is expected to be published in fall of 2007.
- NCHRP Project 08-61, “Transportation Demand Forecasting Parameters and Techniques”, will prepare a comprehensive update to NCHRP Report 365 (Travel Estimation Techniques for Urban Planning). This project is currently in development.

PAMR Standards

Several Councilmembers: How are Relative Transit Mobility and Relative Arterial Mobility calculated and what references are used to establish LOS thresholds?

Response: As described on pages 115 and 116 of the Final Report, the PAMR uses information in two documents published by the Transportation Research Board (TRB) to assess arterial and transit mobility. Additional details on the process and references are described below.

Transit Level of Service

Transit level of service is computed by using the Department’s TRAVEL/3 model to summarize the amount of time it takes people to travel to work by auto from each policy area to everywhere else in the model region during the morning peak period. Then, the number of work-related auto trips is calculated from each policy area to everywhere else in the model region. The auto travel times are then divided by the number of work-related auto trips to compute an average roadway trip time for each policy area.

Next, the model is used to summarize the amount of time it takes for people to travel to work by transit from each policy area to everywhere else in the model region during the morning peak period. Then, the number of work-related transit trips is calculated from each policy area to everywhere else in the model region. The transit travel times are then divided by the number of work-related transit trips to compute an average transit trip time for each policy area.

Finally, the average roadway trip times are divided by the average transit trip times to compute a Relative Transit Mobility percentage for each policy area. The resultant Relative Transit Mobility percentages are shown on the x-axis of the PAMR charts.

The relationship between auto mobility and transit mobility are assessed a level of service grade based upon Exhibit 3-31 of the Transit Capacity and Quality of Service Manual, excerpted below. Exhibit 3-31 describes this aspect of transit level of service as the difference in travel times. Staff has converted the Exhibit 3-31 differences to a ratio by dividing the difference in travel times, using a 45-minute journey-to-work as the denominator. For example, a trip that takes 45 minutes longer by transit than by auto equates to a Relative Transit Mobility value of 50%, the threshold between LOS D and LOS E.

Transit Capacity and Quality of Service Manual—2nd Edition

Exhibit 3-31
Fixed-Route Transit-Auto
Travel Time LOS

Since transit-auto travel time is a system measure, its data requirements are greater than those for transit stop and route segment measures. This section presents two methods for calculating transit-auto travel time LOS: one uses a transportation planning model and the other is done by hand.

As with many of the other service measures, transit-auto travel time can be measured at different times of the day, for example, at peak and off-peak times. Because peak hour traffic congestion tends to lengthen automobile trip times, the calculated LOS will often be better during peak hours than during the rest of the day. Exhibit 3-31 provides the transit-auto travel time LOS thresholds:

LOS	Travel Time Difference (min)	Comments
A	≤0	Faster by transit than by automobile
B	1-15	About as fast by transit as by automobile
C	16-30	Tolerable for choice riders
D	31-45	Round-trip at least an hour longer by transit
E	46-60	Tedious for all riders; may be best possible in small cities
F	>60	Unacceptable to most riders

Door-to-door travel by transit is faster than by auto at LOS "A." This level of service provides considerable incentive to potential riders to use transit. At LOS "B," the in-vehicle travel times by auto and transit are comparable, but the walk and wait time for transit makes the total trip by transit slightly longer. Riders must spend an extra hour per day using transit at LOS "C" levels and up to 1.5 hours at LOS "D." At LOS "E," individual trips take up to 1 hour longer by transit than by automobile.

Arterial Level of Service

Arterial level-of-service is computed by first summarizing travel speeds for each policy area under free-flow, evening peak period, travel conditions as defined by the model process for all of the non-freeway roads in each policy area. Then a travel speed calculation is made under congested evening peak period travel conditions for all of the non-freeway roads in each policy area. The free-flow travel speeds are then divided by the congested arterial travel speeds to compute the Relative Arterial Mobility percentage for each policy area. The resultant Relative Arterial Mobility percentages are shown on the y-axis of the PAMR charts.

The arterial level of service standards are based on the Highway Capacity Manual Exhibit 15-2, excerpted below. As with the transit level of service axis, the PAMR arterial LOS thresholds are expressed as a ratio. For instance, on a street with a 40 MPH free flow speed, the Exhibit 15-2 threshold between LOS C and LOS D occurs at 22 MPH, or a rate of travel 55% as fast as the free flow speed.

Highway Capacity Manual 2000

other hand, longer urban street segments comprising heavily loaded intersections can provide reasonably good LOS, although an individual signalized intersection might be operating at a lower level. The term through vehicle refers to all vehicles passing directly through a street segment and not turning.

Exhibit 15-2 lists urban street LOS criteria based on average travel speed and urban street class. It should be noted that if demand volume exceeds capacity at any point on the facility, the average travel speed might not be a good measure of the LOS. The street classifications identified in Exhibit 15-2 are defined in the next section.

EXHIBIT 15-2. URBAN STREET LOS BY CLASS

Urban Street Class	I	II	III	IV
Range of free-flow speeds (FFS)	55 to 45 mi/h	45 to 35 mi/h	35 to 30 mi/h	35 to 25 mi/h
Typical FFS	50 mi/h	40 mi/h	35 mi/h	30 mi/h
LOS	Average Travel Speed (mi/h)			
A	> 42	> 35	> 30	> 25
B	> 34-42	> 28-35	> 24-30	> 19-25
C	> 27-34	> 22-28	> 18-24	> 13-19
D	> 21-27	> 17-22	> 14-18	> 9-13
E	> 16-21	> 13-17	> 10-14	> 7-9
F	≤ 16	≤ 13	≤ 10	≤ 7

Travel speed defines LOS on urban streets

Several Councilmembers: What level of arterial and transit mobility should Montgomery County aspire to?

Response: The Final Draft Growth Policy is sensitive to the prevailing public opinion that current congestion levels are undesirable (see page 123, for example).

It is natural that residents expect or demand low levels of congestion even at peak periods. As Councilmember Berliner pointed out, a report card consisting of C's

and D's would not be acceptable to the average parent. Even though the transportation system works a bit differently, and LOS E is technically not "failing," it is not desirable either. In general, for each mode of travel, conditions at LOS D or LOS E reflect the maximum throughput, or person-carrying capacity, and so they are the most cost-effective conditions to design for.

In 2006, Planning Department staff led the development of the revision to ITE's *1997 Recommended Practice for Transportation Impact Analyses for Site Development*. This effort included a literature review of over 120 traffic impact study procedures from jurisdictions nationwide. Most jurisdictions seek LOS D conditions, with exceptions made to accepting LOS E in more urban areas and LOS C or B only in "undeveloped" areas.

Montgomery County's LATR policy reflects similar judgment. The 1400 CLV threshold applied in our rural areas is in the middle of the traditional "LOS D" range (1300 to 1450) and CLV thresholds in all policy areas other than Metro Station Policy Areas is 1600 or lower, the traditional threshold between "LOS E" and "LOS F".

Achieving rural congestion levels in all areas of the County would not only require a much greater investment in transportation facilities but also reductions in current densities in most of the County.

In summary, while we'd all like to score A's on our report cards, it would require enormous changes to both planned land uses and transportation facilities to ensure all A's on our transportation service.

On the other hand, we emphasize that PAMR is an average, areawide measure of congestion. We believe that the finding that only two policy areas are deemed inadequate in the 2030 PAMR analysis demonstrates that our master plans provide a general balance between land use and transportation. At the detailed analysis level, however, we concur that traffic congestion is a problem; the 2006 Highway Mobility Report noted that 15% of the intersections studied in the County exceed their LATR congestion standards. These two findings are not at all at odds with each other; they are similar to the findings that Montgomery County has a high median income but also a number of residents living below the poverty level.

In summary, we believe that our PAMR and LATR proposals provide an expectation for mobility that is reasonable, considering that they are:

- Consistent with national standards and guidelines from TRB,
- Reflective of our sustainability and design excellence guidelines to reduce expectations and reliance on single-occupant auto travel, and
- Affordable, as the 2030 projections show that if we can continue to pursue implementing, operating, and maintaining the \$7.4B CLRP program that

we'll essentially keep pace with growth (with two policy areas labeled "inadequate" in both the 2013 and 2030 scenarios described in the Final Report).

All three of these considerations reflect the maxim that "you can't build your way out of congestion". As described during the June 19 briefing, if we choose to aspire to higher levels of mobility, particularly for auto travel, we should consider the effects on the values described in the three bullets above.

Recognizing that the Council may not concur with the Planning Board's vision on appropriate levels of mobility, page 120 of the Final Report provides two alternative means for establishing mobility policies that the PHED committee may wish to entertain.

Councilmember Praisner: If the Transportation Research Board concept is based on urban streets, why should we use it for the entire county?

Response: The Highway Capacity Manual contains several techniques for analyzing transport systems. Chapter 15 is the Urban Streets chapter, and the second sentence of the chapter states that: "This methodology also may be used to analyze suburban streets that have a traffic signal spacing of 2 mi or less." Staff finds that, for all intents and purposes, this describes all non-freeway roadways in Montgomery County. We recognize that there are roadways in the agricultural reserve where one may travel for more than two miles without encountering a traffic signal. The Highway Capacity Manual procedures for gauging level of service on these roadways, however, include:

- Multilane highways, of which there are none existing or planned with two-mile spacing between signalized intersections, and
- Two-lane highways, for which the level of service criteria is the percent of time spent following another vehicle and the mitigation remedies are passing lanes or truck climbing lanes; strategies we find inappropriate for consideration in the agricultural reserve.

PAMR Metro Station Policy Areas

Councilmember Praisner: Please map policy areas as proposed by the Planning Board and as proposed by the Coalition for Smarter Growth. Please crosshatch those areas where there is staging in the master plan or sector plan.

Response: These maps are attached.

Councilmember Elrich: If the Council decides to have separate Metro Station Policy Areas, how would PAMR address that? Councilmember Trachtenberg: Ask Dr. Hanson his views on disaggregating Metro station policy areas from larger sectors,

such that new development would not be hindered based upon transit mobility calculations of larger areas.

Response: The Board considered this issue and recommended that the MSPAs be included in the larger policy areas of which they are a part, as they are essentially inseparable from them in terms the way in which the transportation system functions.

Planning staff recommended against separating out MSPAs from their parent areas for both philosophical and technical reasons. As addressed on page 124 of the Final Report, our staff finds that a second-tier test like PAMR is an effective means for addressing concerns of residents outside MSPAs who are still affected by trips generated within an MSPA. These residents have noted that much of the planned development in, for example, North Bethesda is located in Grosvenor, White Flint, and Twinbrook. Staff suggests it would be difficult to justify finding North Bethesda to be inadequate while finding Grosvenor, White Flint, and Twinbrook to be adequate. The same is true for the Metro station areas located in Bethesda/Chevy Chase, Silver Spring/Takoma Park, Kensington/Wheaton, and Derwood.

A decade ago, the development community had to be actively encouraged to pursue mixed use projects near Metro stations. This is no longer the case, so that it is no longer necessary to provide special treatment for Metro areas in this test, although still justified in Local Area Transportation Review.

From a technical perspective, the precision of any modeling or statistical application improves as the aggregate scale of analysis increases. The size of “parent” Policy Area geographies is large enough for areawide analyses. The use of individual MSPA geographies is too small to apply the PAMR process with any level of precision. For instance, the Relative Transit Mobility is based on analysis of journey-to-work patterns for policy area residents. Each of the policy areas in the PAMR model has at least 1,700 households as of 2005. In contrast, the Twinbrook Policy Area has three households, not a suitable base for establishing a Relative Transit Mobility score. Similar concerns exist regarding the number of roadway links upon which the Relative Arterial Mobility score would be established for smaller policy areas like Twinbrook, Grosvenor, and Friendship Heights.

If the concept of separating Metro Station Policy Areas is pursued, Planning staff would recommend using cordon capacity or a similar measure that works well for small areas. A possible formula: if a parent policy area is found to be inadequate, the Metro station policy area will be considered adequate only if the number of vehicle trips crossing the “cordon” or boundary of the Metro station policy area, is less than a certain number – the “cordon capacity.”

The analysis required to establish cordon capacities for each Metro Station Policy Area would be considerable.

Councilmember Trachtenberg: Ask Dr. Hanson his views on permitting Metro station policy to exit potential moratoria only via transit improvement, rather than road widenings.

Response: The Planning Board's recommendations make a non-auto solution much more likely, but reserves the option of a roadway improvement when it would be beneficial. Because the traffic impacts of MSPA development most often affect communities in the surrounding or "parent" Policy Area, the Board recommended that roadway improvements either in the MSPA or in the parent area remain one of the set of appropriate PAMR mitigation tools. Councilmembers have noted that the streets need to function well enough to get riders to the Metro stations.

PAMR - Germantown East

Councilmember Floreen: What are some candidate roadway improvements in Germantown East, which is found by PAMR to be inadequate?

Response: Candidate items include:

- Widening MD 355 to 6 lanes, Brink Road (where it is 2 lanes today) past MD 27 (widens to 4) to MD 118 (where it becomes 6).
- Widening Brink Road to 4 lanes between MD 355 and MD 27.
- Widening Germantown/Watkins Mill Roads from 2 to 4 lanes between MD 355 and Montgomery Village Policy Area (where it is built to 4 but striped as 2).
- Constructing missing portions of Gunners Drive,
- Widening narrow portion of Scenery Drive east of MD 355 to match newly built section.

PAMR – Relationship of Transit and Auto

Councilmember Praisner: I am having problems with the PAMR proposal. For example for MARC and Metro become more effective as a result of their relationship to increased congestion on our roads, how do you account for the fact that the increased congestion will also make it more difficult for residents to get to MARC and Metro? Councilmember Trachtenberg: Ask Dr. Hanson to comment on the wisdom of calculating the proposed PAMR as the ratio of transit travel speed to automobile travel speed, when buses are held up in traffic just as much as are cars.

Response: PAMR takes this into account. Buses operating in mixed traffic experience the same delays caused, and experienced, by auto traffic when demand approaches or exceeds capacity. This factor is reflected in the PAMR modeling process; a transit trip operating only in mixed traffic cannot be made faster than

an auto trip using the same route. PAMR will be recalculated annually, so it can account for operational improvements made (or not) to affect bus efficiency.

However, the 2000 census survey notes that two-thirds of the Montgomery County residents who take public transit to work use rail for at least a portion of their journey. This demonstrates the value of providing and supporting high-quality, time-competitive transit services, as indicated on page 138 of the Final Report. It also indicates that roadway improvements that will benefit bus services, including those improvements in Metro Station Policy Areas, remain an integral component of the transportation picture. In addition, the County has certain facilities where buses are provided a time-savings advantage, including the use of express bus services on the I-270 HOV lanes and queue jumper applications at locations such as Veirs Mill Road at Aspen Hill Road.

Valid concerns have been raised about the efficacy of adding buses (through PAMR mitigation) to already congested corridors or roadways. Ultimately, DPWT will need to make decisions regarding the allocation of transit vehicles, with input from other operating agencies such as WMATA and MTA. Generally speaking, “new” vehicles can either be net additions to the fleet or used to replace existing vehicles.

From a service planning perspective, one way that “new” vehicles can be used to make a trip by transit a more competitive alternative to a trip by auto is by providing more frequent service in peak hours on existing routes in close proximity to rail or express bus service. DPWT’s restructuring of the Germantown Transit Center services is a recent example of how buses can be deployed to better compete with the auto for certain trips without the need for significant modifications to a roadway.

With respect to transit infrastructure, we may want to consider the relationship between the use of PAMR for mitigation and the prioritization of transit needs in the CIP and CTP processes. For instance:

- Our investment in Metrorail must be protected – about one-half of the additional cars we will need are currently funded and there are needed station enhancements that the County is already taking the lead on from a funding standpoint.
- The Purple Line and Corridor Cities Transitway are fundamental to our growth management objectives and the funding of these projects will continue to be a challenge.

The PAMR fee-in-lieu concept may therefore provide the County Council with additional budget flexibility for allocation of funds toward accelerated transit programs, just as the Council has accelerated implementation of the southern Bethesda Metrorail entrance through an advance funding mechanism.

Councilmember Praisner: My constituents tell me that even when they want to use Ride On or Metro buses today, the problem is it takes so long to get to the destination; i.e., Metro stations. How have you considered their concern?

Response: PAMR's definition of transit level of service is based on trip speed – including waiting and transfer time.

Councilmember Praisner: I am also concerned by the increased emphasis on what you have yourself identified as amenities, especially because they are not the same as relief and mitigation and especially given the past, less than effective experience we have had with even more fundamental options, i.e. park and ride lots. I would like to consider strengthening this section, especially since much of the PAMR proposal is not fleshed out for our consideration. I would appreciate any suggestions you may have. What actual evaluations have been done regarding non-lane creation congestion solutions as to sustainable, positive effects? What happens when the shuttle provided for several years is no longer required?

Response: One of the challenges is that we tend to evaluate non-auto improvements by a standard – how well they reduce auto trips – that does not entirely capture the benefits that they provide. It is, of course, a policy decision as to whether these benefits are an appropriate response to unacceptable auto congestion levels.

There is evidence that a pedestrian-friendly environment does reduce auto trips, but the contribution of any *individual* improvement (bus shelter, sidewalk, bike locker) on traffic would be small and difficult to assess. In order to achieve an overall pedestrian friendly environment, however, many individual improvements are necessary, and new development can play a role in providing them.

Limiting developer funding of transit service to a certain number of years does mean that, at the end of that period, the service ends. On occasion, another developer may need to mitigate trips and may pick up an expiring transit service, but it is more likely that the service will end unless it becomes publicly supported.

The suggested developer contribution of funds necessary to operate a bus for twelve years could be increased to cover a longer period of time.

We expect to have additional information on this issue for the worksessions.

Councilmember Trachtenberg: Ask Dr. Hanson the relevance of the tests found in APFO Reform Part 2 to articulation of a less automobile-oriented development vision.

Response: As noted in page 138 of the Final Report, reducing congestion with non-auto use is only accomplished with a combination of methods. The Growth Policy emphasis on sustainability and design excellence is closely connected with

the transportation goals of encouraging non-auto use in the County. Creating a pedestrian friendly physical environment that provides for access to bus routes and Metrorail, as well as connections to other local activities, is an important part of getting drivers out of their cars. This is done through design of both the public realm, and in good land use planning and design. Other aspects that have been effective in other locations include parking pricing and high quality transit systems such as light rail and Bus Rapid Transit.

Some jurisdictions have been creating LATR type standards that are more multimodal, relying less on vehicle capacities. Such standards generally are not added to intersection congestion standards, but rather replace them, since there are physical trade-offs between providing longer crossing times for pedestrians while maintaining a high proportion of green time allocated to autos. Our LATR standards require a pedestrian statement describing how pedestrians are being accommodated in each Preliminary Plan (subdivision), and pedestrian movement is considered in every site plan that the staff and Board review. Our County Bikeways Functional Master Plan is also a key guide to providing the bikeway network that encourages cycling and walking as alternatives to auto use. Implementing this and other bicycle plans is also considered in the review of every Preliminary Plan. So our process is a reasonable balance between awareness and standards for congestion and assuring that pedestrians and cyclists are considered.

Of course, we would more fully articulate the vision for a less automobile-oriented future in our master plans. So a question could be: Do the County master plans have the right mix of pedestrian, transit, and auto emphasis?

Our Growth Policy recommendations focus on allowing current master planned improvements to keep pace with current master planned growth. At public forums on the Growth Policy, some have suggested changing either the type of growth or the planned allocation of right-of-way among pedestrians, transit, and auto.

As master plans are updated, we have the opportunity to reconsidering how to allocate roadway or other public right of way to transit services and other vehicles. For instance, a master plan could recommend either the addition of a lane exclusively for HOV (such as currently planned in the I-270 corridor) or Bus Rapid Transit (such as planned between Glenmont and Olney). Conversely, a conversion of an existing lane to HOV or BRT could also be proposed and adopted as policy. In the implementation process, agencies (SHA, MTA, WMATA, and DPWT) that build and operate such facilities must be fully involved in both the planning and implementation processes to ensure a successful project delivery.

While our Growth Policy recommendations reflect current plans and policies in the master plan and zoning arenas, the Growth Policy discussions could be a

forum for the County Council to provide guidance to us regarding transportation service changes you believe should be pursued from a policy perspective in future master plans.

Councilmember Trachtenberg: Ask Dr. Hanson how we can ensure that increases in transit mobility are sufficient to compensate for the magnitude of the decline in automobile mobility.

Response from Dr. Hanson: We are not so much able to ensure certain outcomes as much as we can create the conditions that allow the desirable outcomes to happen. In this case, we can collect a transportation tax that will provide enough money to pay for the incremental costs of improvements in mobility to serve the new growth. If we do not provide the impact tax, we can be pretty sure, based on two decades of County behavior, that infrastructure improvements will not keep pace with development, notwithstanding that the improvements are often promised or even budgeted—then delayed.

PAMR Background

Councilmember Elrich: Please explain the background for this methodology, particularly its use as a growth management tool, versus its use as a mobility assessment tool.

Response: The PAMR methodology is unique as growth management tool. This process was developed “in-house” by staff for consideration by the County Council as a renewed “policy area” transportation test. Staff considered six other approaches to a second, policy area level, transportation test to supplement LATR. PAMR was selected as the superior approach based on several characteristics as described below:

- Importance – are the factors measured of interest to constituents (residents, business interests, and decision –makers)?
- Relevance – are the factors measured appropriate to considering the transportation effects on growth?
- Coherence – are the test results understandable to the constituents and are the results from different scenarios intuitive to the decision makers and stakeholders?
- Reliability – does the test measure what it says it does, and can the results be replicated?
- Availability - is the data observable and available today for current conditions and can that measure reasonably be forecast to represent future conditions?

PAMR is desirable as a regulatory tool for several reasons, including:

- (1) The methodology embodies the long-standing County policy that greater levels of arterial roadway congestion should be tolerated in areas where high-quality transit options are available, with less roadway congestion in lower transit served areas. The

procedure also uses transit travel times between destinations as compared to congested auto times as a key factor, reflecting the importance of transit travel.

- (2) The process is suitable for considering area-wide conditions for multiple horizon years and land use and transportation scenarios.
- (3) The criteria used to establish level of service benchmarks for relative transit mobility and relative arterial mobility are based on widely accepted national standards (i.e., the 1999 Transit Capacity and Quality of Service Manual and the 2000 Highway Capacity Manual, both published by the Transportation Research Board.) The HCM establishes level of service definitions for a variety of transport facilities, including freeways, highways, urban streets, intersections, sidewalks, and transit systems. There are a number of different methods of setting congestion standards, and among these is the PAMR measure: average congested speed compared to free flow speed. The PAMR uses the relationships in Exhibit 15-2 of the HCM. For urban streets, LOS B is when average congested speeds are no slower than 70% of free flow speed. LOS C is when average congested speeds are no slower than 55% of free flow speed. LOS D is when average congested speeds are no slower than 40% of free flow speed. The PAMR test does not result in any policy area being given a standard of LOS F.

PAMR – Peak Period

Councilmember Elrich: It is important to model the PM (evening) because the PM reflects the real world experience when everything that goes on in people’s lives is actually happening.

Response: The PM model is used to determine relative arterial mobility in PAMR. Relative arterial mobility defined as the relative speed by which auto trips can move during the PM peak hour as compared to the free flow speed.

The AM (morning peak hour) model is used to determine relative transit mobility in PAMR. Relative transit mobility is defined as the relative speed by which journey to work trips can be made by transit, as opposed to by auto. Staff selected this approach because of the availability of Montgomery County Census Update Survey data that can be used to verify the journey to work travel times produced by the transportation model.

PAMR – Calculation of Average Speed

Councilmember Elrich: Does the calculation of average speed reflect the average speed on arterials, or the speeds on all roads in policy area?

Response: Average arterial speed in a particular policy area is based on all non-freeway roads as reflected in the transportation model network. These facilities include roads classified in the regional network as major arterials, minor arterials and local collectors. Countywide, approximately 95% of non-freeway travel occurs on roads classified as arterials in the transportation model. The remaining 5% of non-freeway travel in the County occurs on local collectors.

As was the case with the previous Policy Area Transportation Review (PATR), there is a philosophical tenet for excluding freeway level of service from a policy area test. The County has almost no control over either the design or the operations of the freeway system, and we have historically decided not to link local development directly to the performance of the freeway system. We did compare the freeways in 2013 to the congestion standards used on 2003 and they were satisfactory.

PAMR – Calculation of Time of Transit Trip

Councilmember Elrich: Does the transit time calculation include time spent waiting at stops, for walking to stops, for time spent in transfers and what was the estimate for time of travel from a house to a bus stop and from the end point bus stop to the workplace?

Response: The transportation model computes the amount of time it takes for people travel to work by transit and the number of work-related transit trips made during the AM peak period. These two datasets are summarized from each Montgomery County policy area to everywhere else in the model region and then used to compute a weighted average transit trip time for each Montgomery County policy area. In PAMR, the computation of transit travel time from point A to point B includes the following components of the trip: (1) travel time from home to the transit stop or station; (2) waiting time; (3) travel time in a transit vehicle; (4) transfer time, if applicable, and; (5) travel time from the end point transit stop to the workplace destination.

PAMR - Staging Ceilings

Councilmember Elrich: Could the PAMR test be used to develop staging ceilings?

Response: Page 122 of the Growth Policy report explains why the Planning Board did not recommend the use of staging ceilings. While staging ceilings allow the County to meter development approvals with great specificity, they also add considerably to the complexity and uncertainty of the administration of the APFO and may not materially improve our ability to affect overall auto congestion levels.

It is possible to calculate staging ceilings using PAMR. As with the old Policy Area Transportation Review, setting staging ceilings with PAMR would require considerable additional analysis. A potential interim step that staff has not explored: separate findings of adequacy for residential and non-residential development. This would allow a finding of adequacy, for example, for housing but not for non-residential development and allow the Growth Policy to reflect job-housing balance effects.

LATR – CLV Scores When Intersections Are Overly Congested

Councilmember Elrich: What happens in the PM, when cars stack from light to light but the volumes are well below the permitted CLV? Fenton Street in Silver Spring is an example. Explain how it is possible to put more development into those intersections.

Response: Several questions have been raised about how our process deals with queuing on a road that backs up into another intersection and thus does not let the demand through, resulting in a lower traffic count and thus a lower CLV calculation. Generally, queuing (or stacking) at an intersection is very directional, often found on only one of the approaches. In unusual situations backups from the next intersection can be found, but in general stacking is just found where one approach or movement, such as turns or through trips, cannot get through in the green time allocated. This can be a function of signal timing, where time on one approach is kept short to give priority to a larger movement on another road. The CLV procedures take a full hour into the calculations, and account for both directions of approach. The draft Growth Policy recommends that in the next LATR Guidelines revision that a requirement for each intersection count will be a visual review of the operation, with a notation if queuing is preventing the full use of the intersection. DPWT also reviews intersection operations from the TMC on Quince Orchard Road, and can identify where queuing is taking place, and adjust the signal timing as they see necessary.

In situations where queues from a downstream intersection do interrupt flows, no static analysis process provides a pragmatic solution. Critical Lane Volumes are the best method we have found for planning applications, but the more complex Highway Capacity Manual intersection procedures would be similarly ineffective if volumes are not getting through the location being studied. There are operations simulation programs that would analyze the location, but these are data intensive and tend to work poorly in more congested situations, being very sensitive to inputs about future conditions such as truck and bus volumes and signal timing.

The best approach to addressing these situations is continued field observations, followed by working with the operating agencies such as DPWT to find ways of improving the flows such as signal timing changes. In a Metrorail Station Policy Area, queuing from one location through another can be the basis for denying a new development if the 1800 CLV standard is exceeded.

One important observation about queuing is that at times the agencies operating the roadway in a particular location can make decisions that affect queuing. This is the case at Georgia Avenue and I-495, where SHA has modified the ramps to create signals that hold up Georgia Avenue traffic to facilitate Beltway ramp movements. This has resulted in observed queuing along Georgia Avenue within

Montgomery Hills during the evening peak. Staff has supported the policy decision by SHA to accept queues on Georgia Avenue in exchange for reducing queuing on the Beltway ramps (which were backing up onto the Beltway lanes) and for fewer accidents at the merge points where the former ramps came onto Georgia Avenue. How this type delay should be factored into the amount of growth allowed in downtown Silver Spring and Montgomery Hills is complex. For now the Council and Executive have requested SHA to study this section of roadway, which includes the intersection of Georgia Avenue and Forest Glen Avenue with its pedestrian safety concerns, and determine what physical improvements, signal changes or other aspects are needed to best accommodate the many objectives found in this section.

Fenton Street

Fenton Street is a Business District Street that serves both access to development and some through trips. It is crossed by several key streets leaving the CBD including Colesville Road, Wayne Avenue and MD 410. Because these cross streets carry more traffic than Fenton Street, some delays on Fenton are to be expected. Counts are taken during a three hour period and the peak 60 minutes are calculated. The stacking, or “queuing,” referenced in the question may occur during only part of the peak hour, or may be a function of the signal timing that tends to hold traffic on the side or access streets and give greater priority to the flows on the major streets.

One of the changes recommended by staff for inclusion in the Board’s LATR Guidelines is requiring that for each of the intersection counts submitted with LATR studies a statement be included summarizing a visual review of the traffic flow during the count, and noting if any unusual situations such as downstream queuing that would have constricted the count volumes.

Councilmember Trachtenberg: We believe the Adequate Public Facility Ordinance is problematic because it measures adequacy of transportation solely by automobile throughput, thus incentivizing investment in roads at the expense of transit. Dr. Hanson should be asked his thoughts on devising by year’s end a new Local Area Transportation Review test that balances automobile, transit, and pedestrian/bicycle mobility in the same way that the Policy Area Mobility Review balances auto and transit.

Response from Dr. Hanson: PAMR involves the relative service levels for auto and transit. We are a ways from having good enough data on walking and biking to use these modes in a transportation model, although they can be used in mitigation strategies for specific subdivisions. It is clear that walking and biking can be used in transit-oriented areas to reduce auto dependence as part of a transportation management strategy.

SCHOOL TEST ISSUES

Councilmembers Praisner and Ervin: Explain how consortia are handled in the School Test.

Response: The current school test has a method for handling consortia and the Planning Board is not recommending that this process be changed. To avoid having disproportionately large geographic areas, the Growth Policy treats consortia as if they are the high school clusters that comprise them. The Northeast Consortium is separated into the Blake, Paint Branch and Springbrook cluster areas. The Downcounty Consortium is separated into the Blair, Einstein, Kennedy, Northwood and Wheaton clusters. These clusters are the collection of elementary schools and middle schools that are within the base area of each consortium high school. In a number of cases, with middle schools in particular, it is necessary to proportion the enrollment and capacities of schools that straddle two high school base areas.

Councilmember Trachtenberg: In reference to the recommendation to lower the threshold that triggers the School Facilities Payment to match “MCPS program capacity” rather than “Growth Policy capacity” (p. 67 et seq. of Draft Policy): If 100% of program capacity were the threshold (see Option 2A), rather than 110%, how would a majority of Councilmembers react to the new listing of school clusters in which development would require the paying of the school facilities payment? What does Dr. Hanson believe to be the “upper limit” which, when exceeded, would cause development approvals in a cluster to stop?

Response from Dr. Hanson: The Planning Board has recommended that development approvals in a cluster be halted when enrollment exceeds 135 percent of capacity.

OTHER PUBLIC FACILITIES

Councilmember Trachtenberg: In reference to Fire and Rescue (p. 81 et seq.): Does Dr. Hanson believe there also should be a measure pertaining to “response time” regarding the adequacy test for fire and rescue services? How would this metric guide the timing and location of growth and development? How could fire stations be designed to be part of mixed use projects?

Response from Dr. Hanson: I am not sanguine that a reliable test can be constructed. One could use an average response time, but even in a single subdivision, the time may vary by several minutes from one end to another, and depend on which unit is first dispatched. In addition, it is cost prohibitive to try to ensure that all areas of the County have the same response time. One would have to construct many more stations in the rural areas of the County to have the same response times as suburban and urban areas. While fire station could be designed

as part of a mixed use project, it would have to be very large to justify a fire station as a requirement of subdivision.

Councilmember Trachtenberg: In reference to community center facilities (p. 84 et seq.): What are Dr. Hanson's views on how we could do a better job of coordinating the siting of non-local recreation facilities and mass transit?

Response from Dr. Hanson: My view is that mass transit should be ubiquitous in most of the County, including smaller buses on suburban streets and use of paratransit with non-fixed routes. The master plan of Parks and Open Space suggests sites for local, regional, and recreation parks.

IMPACT TAX ISSUES

Jobs-Housing Balance

Councilmember Praisner: Please address the comments from the Clarksburg Town Center Advisory Committee about the job-housing balance.

Response: Overall, the Clarksburg policy area had 5,300 jobs in 2005 compared to about 1,900 housing units, for a jobs-housing ratio of 2.8.² However, staff understands that CTCAC's comments were directed not only to the overall jobs-housing ratio but also to the need for retail and other businesses that support residents of the Town Center. CTCAC's testimony notes that Clarksburg's transportation impact taxes are higher than elsewhere in the County and, moreover, that the recommended rates would increase the transportation impact tax on retail more than other land uses. CTCAC is correct that the recommended rates would increase more on retail in Clarksburg than on any other land use or geography.

The jobs-housing ratio is discussed generally on page 222 of the report. Germantown is another area where there is concern that housing has outpaced job growth. In 2005, the Germantown Planning Area had about 24,200 jobs and about 28,900 housing units, for a jobs-housing ratio of 0.84.

The decision to charge higher transportation impact taxes in Clarksburg was made in 2003 and the Planning Board did not revisit that decision. The Board did identify impact tax issues for further study and included "geographical structure" (see page 200) in that list.

The larger increase in transportation impact taxes for retail reflects a decision by the Board that daily trips, rather than peak period trips, is a better method for determining the costs of infrastructure by land use. Compared to other non-residential land uses, retail generates many more daily trips.

Including Clarksburg within the General category would lower impact tax rates in Clarksburg and increase them elsewhere in the General district. Allocating transportation costs to various land uses by peak period trip generation, rather than daily trip generation, would reduce retail impact tax rates to a per-square-foot rate a bit lower than the office rate.

Housing Affordability/Equity

Councilmember Praisner: How do you respond to the concern raised that your fee increases will exacerbate the affordable housing challenge?

² A jobs-housing ratio is considered "balanced" when there are 1.5 to 1.6 jobs per housing unit because there are, on average, 1.5 to 1.6 workers per household.

Response: Housing prices are based on what home buyers are willing to pay and not on the cost of construction. This effect is most clearly seen when existing homes are sold: an existing home's sales price is based solely on its value now, and has virtually nothing to do with how much it cost the current homeowner originally, or even on what it cost to build it.

Because new homes in Montgomery County compete with the many existing homes on the market, as well as new homes in other jurisdictions, home builders have little latitude to pass increased costs onto homebuyers.

Increases in impact taxes are more properly viewed as a cost increase for the builder. As such, impact taxes are just one of many costs that builder has. These other costs also fluctuate. The real question with regard to the effect of impact tax increases is how they will affect builder profitability and not whether home prices will increase. Builders already price their homes at the maximum the market will bear.

The cost of construction does affect builder behavior – he will not begin construction without the anticipation of profit, and changes in construction costs will affect profit potential. The builder assesses whether market prices (prices that he does not control) are such that he can make a profit given expected construction costs.

We can take as an example a developer who purchased land for housing in 2004 and who intended to build some detached homes at the median price. In 2004, that price was \$666,000 and the impact tax on those homes was \$13,500. So, in theory, the builder expected to be able to make a profit from homes priced \$666,000. Two years later, the price that he can expect for the same home is \$881,000, which is a \$215,000 increase. That is a considerable increase in profit, some of which can be used to offset increases in construction costs including an \$18,000 increase in impact taxes.

In our presentation to the Council on June 19, staff explored some other issues related to the effects of growth management and impact taxes on housing affordability that we would be happy to discuss further. One point that we did not spend much time on: new, market-rate homes are well out of the range of affordability for reasons other than the impact tax, so there should be no expectation that failure to increase impact taxes will materially affect the affordability of new homes, just as a reduction in impact taxes would not result in a drop in home prices.

Councilmember Leventhal: Is it equitable that homes built next year will bear the full burden of the marginal increase in burden on schools and roads, while homes built last year do not?

Response: Marginal cost pricing is an equitable pricing mechanism. Traditionally development pays less than its marginal cost, which shifts the cost of new infrastructure to existing County residents. There is an argument that existing residents will use the infrastructure paid for by new development, but of course, residents and workers in new development projects use the infrastructure paid for by existing residents. New development benefits to a much greater degree on previous investments in infrastructure than do existing residents benefit from infrastructure provided by new development.

Councilmember Leventhal: Are we considering religious institutions as part of necessary infrastructure?

Response: The Planning Board discussed the importance of religious institutions to the County's quality of life and proposed to leave the impact tax rates on houses of worship unchanged, rather than increasing them.

Comparison to Other Jurisdictions

Councilmember Leventhal: For a single-family detached home outside Clarksburg, not located in a Metro Station Policy Area, the combined recommended transportation and school impact taxes come to more than \$31,000 per home (and in Clarksburg, more than \$35,000 per home). According to the Planning Board final draft (page 208), the average combined school and transportation impact taxes nationally come to \$6,443. Is there any other jurisdiction in the United States that imposes taxes this high (in actual dollars -- not as a percentage of average home price)?

Response: There are jurisdictions in California and Florida that impose higher impact taxes than the proposed impact taxes. Duncan and Associates (<http://www.impactfees.com/>) conducts an annual national survey of impact fees. They report that the impact fees in 2006 on a single family detached dwelling of 2,000 square feet with 3 bedrooms on a 10,000 square foot lot would be \$67,961 in Gilroy, CA, \$65,735 in Livermore, CA, \$43,537 in Eldorado County, CA, \$33,685 in Windsor, CA, \$32,983 in Vacaville, CA. and in the \$30,000's in many other California jurisdictions. In Florida, the highest they report is \$30,273 in Collier County.

A June 1997 study called "*Development Fees and New Homes: Paying the Price in California – Research Brief*," by the Public Policy Institute of California, found that impact fees in Northern California averaged between \$20,000 and \$30,000, which was ten years ago.

Councilmember Leventhal: The Planning Board final draft (page 191) says 13 Maryland jurisdictions levy higher recordation taxes than Montgomery County. Does this statement take into account the combined effect of recordation taxes and transfer taxes on closing costs? How does Montgomery County compare with other jurisdictions when both recordation and transfer taxes are calculated, both under current rates and the proposed new rates?

Response: Please refer to the attached spreadsheet denoting transfer and recordation fees by county – also please note that several counties have specific exemptions on either the transfer tax an/or recordation tax. These exemptions have been included in the calculations. In addition, a PDF file outlining fees and exemptions by county is also attached.

When just the recordation tax is compared across counties, 13 jurisdictions in Maryland have a higher recordation tax.

When combining the recordation and the county transfer tax – currently, there are 6 counties with a total tax bill higher than Montgomery County’s for a \$500,000 house. The same relationship holds true for a \$300,000 house. The difference in the amount of recordation plus transfer tax paid currently and under the recommended increase equals \$1,078 or \$1,940 for a \$300,000 or \$500,000 house, respectively.

Although a seller is not required to pay half the closing costs, we understand that this is customary in Montgomery County. If this is the case, then the increase in the recordation fee to a Montgomery County homebuyer purchasing a \$300,000 or \$500,000 house will be approximately \$539 or \$820, respectively.

Councilmember Trachtenberg: School impact taxes, recordation taxes, transportation impact taxes, and excise tax rates: these are the sorts of items potentially to be increased in the Policy’s infrastructure financing section. Yet, neither in Maryland nor in the Virginia/DC/Maryland Greater Washington Metropolitan Area are the types and rates of taxes imposed upon the development process exactly the same county-to-county. While Table 3.7 (p. 211) offers some limited basis of inter-jurisdictional comparison, it would be helpful if the planning staff were to prepare an expanded, more comprehensive chart of the taxes and fees affecting the development process prior to Council’s debating the merits of the Planning Board’s proposed increases. (Request such a chart from Dr. Hanson prior to Council’s discussion of the proposed increases.)

Response from Dr. Hanson: Staff has prepared some additional information (see previous question and below). But the issue is not whether it has been done elsewhere, but whether it is sound policy.

Planning staff notes that on page 211 of the *Final Draft 2007-2009 Growth Policy*, a table depicting impact fee/excise tax rates for all relevant Maryland Counties is shown. The fees/taxes shown are from a 2007 document produced by the Department of Legislative Services for the State of Maryland. The amounts shown in this table are the most recent, comprehensive list available for counties within Maryland.

In Virginia, most counties operate under the proffer system. Proffers are a voluntary offer by a landowner to perform an act, contribute money or donate land in order to mitigate the impacts of new development that result from a

rezoning. Therefore a published schedule of set fees is not possible. In 2002, however, Virginia enacted legislation enabling counties the right to charge impact fees for development. According to the Duncan and Associates 2006 Survey, Henrico County imposes impact fees for schools and fire stations. Stafford County imposes fees for transportation infrastructure, while Loudoun County imposes only utility related impact fees. Prince William County has recently started deliberations over impact fees of \$51,113 for a single-family detached home, \$43,262 for a single-family attached, and \$26,545 for a multi-family unit. These fees are slated for roads, schools, parks, libraries, and fire/police stations.

Infrastructure Financing and Growth Management

Councilmember Trachtenberg: Of the tools discussed in the draft Growth Policy to fund infrastructure (school impact taxes, recordation taxes, etc.), which ones would enable the County to guide growth to achieve the County's vision for development?

Response from Dr. Hanson: The master plans guide the form and character of growth and change. The Growth Policy is designed to help stage growth so that it either occurs where facilities are adequate to serve it—thus, guiding administration of the adequate public facilities ordinance—or to provide means by which the needed facilities can be provided in a reasonably timely way. It also provides a means of identifying those areas where there are substantial needs for additional facilities in order to provide the Council with information it needs in adopting the CIP. To the extent that an important component of the County's vision involves concurrence of development and facilities, the proposed 2007 policy lays out a strategy for ensuring that new development pays for the marginal impact on facilities, both county-wide and in its particular neighborhood. There may be good policy reasons for adjusting the impact tax rates, but in so doing the Council needs to know what the tax expenditure involved will be to, in effect, ask County taxpayers to subsidize that growth.

Councilmember Trachtenberg: What are Dr. Hanson's views on the efficacy of creating a two tiered infrastructure tax/fee system, involving lower fees on development within Metro station policy areas and higher fees elsewhere?

Response: The current and proposed impact tax schedule charge lower rates in Metro station policy areas and higher rates elsewhere. Within the transportation impact tax rates, the difference is explicit; in the school impact tax rate schedule, the type of residential development most likely to occur in Metro station areas (multi-family) is charged a lower rate. In both cases, the rates reflect a difference in trip and student generation, rather than a desire to subsidize Metro station area development. As noted elsewhere, there is debate about the efficacy of using varying impact tax rates as a means to "steer" development to one location over another.

The transportation impact taxes are less in Metro station policy areas because that new development will have less impact upon the transportation infrastructure than development located elsewhere. Development close to Metro stations has been shown to have lower vehicle trip generation rates than similar developments located further away from Metro, primarily due to the use of Metrorail for certain trips.

School taxes are tiered not based on geography but by dwelling unit type for the same reason that transportation fees are tiered geographically. Both fee schedules incorporate the usage rates, transportation usage rates are related to proximity to transit, and school "usage" rates, more accurately, student generation rates vary by type of dwelling unit.

Impact Taxes for Other Public Facilities

Councilmember Trachtenberg: What are Dr. Hanson's views on the possibility of imposing fees other than the ones suggested in the Draft Policy (e.g., parking fees on both public and private spaces, congestion charges)?

Response from Dr. Hanson: These are questions worthy of exploration in the next iteration of growth policy and in both sector plans and other policy discussions.

User fees can be an effective way of changing traveler behavior, as the Final Report notes anecdotally (for instance, discussing parking pricing and other Travel Demand Management tools on page 138 and roadway tolls on page 225). However, user fees have historically been difficult to implement swiftly. Therefore, for the purposes of developing recommendations that could be implemented immediately in this year's Growth Policy, we assumed a continuation of our current plans and policies (such as our current Parking Lot Districts and the implementation of the ICC as a value-priced roadway with variable user changing according to congestion levels). Our proposals do not preclude different policy visions regarding user fees and we would be pleased to help the Council consider how they might choose to further pursue such options.

DEMOGRAPHICS

Councilmember Trachtenberg: the focus is on in-migration to Montgomery County; but what about migration within the County? Ask Dr. Hanson to comment upon the demographic trends in intra-County migration as well as the resultant policy implications. Request that Planning staff prepare charts for Council which detail intra-County migration with the same level of demographic precision as do the current charts pertaining to in-migration.

Response from Dr. Hanson: The best that we can provide are data from the 2005 Census Update Survey showing population and housing characteristics of County residents who moved to different residence within Montgomery County between 2000 and 2005. Attached is a bulleted summary of the findings, following by a two-page table of statistics.

SUSTAINABLE DEVELOPMENT

Councilmember Trachtenberg: the Draft Policy, at page 245, posits seven obstacles to sustainable development: lack of shared vision, lack of understanding, limited transit access and choice, insufficient mix and density, single use zoning, unaffordable housing and transit, and development which fails to optimize the public realm. Ask Dr. Hanson -- as well as other Councilmembers -- how both the Draft Policy as well as Council's forthcoming discussion of it would differ if overcoming these seven obstacles were the strategic focus of the Policy rather than an "add on" to it.

Response from Dr. Hanson: Keep in mind the traditional use of growth policy, to guiding application of the APFO to deliver the vision contained in the General Plan and Master/Sector Plans.

Planning staff notes that the draft policy compliments the General Plan and Master/Sector Plans in moving us toward sustainability, assessing the adequacy of facilities to serve development before that development goes ahead.

The Growth Policy resolution calls for the development of a set of sustainability indicators through a public process. This is aimed at achieving the shared vision and understanding.

Master/Sector Plans and new zones are being prepared that incorporate additional mix and density and improve transit access and choice.

The Growth Policy recommends the improvement of design guidance for the public realm.

Councilmember Trachtenberg: Dr. Hanson should be asked the extent to which staff explicitly considered questions of global warming, rising oil prices, and energy independence in the Draft Policy's development, and what aspects of the Policy reflect those considerations.

Response: Planning staff notes that global warming, rising oil prices and energy independence are the basis for the sustainability initiative. While the Planning Board included illustrative examples of indicators that could be used, more work and public input is needed to determine how to incorporate the appropriate indicators to achieve goals in this area. The implementation of the Growth Policy will be the first step in this direction.

Councilmember Trachtenberg: the Housing and Transportation Affordability Index, designed by the Urban Land Institute and others to better link the real costs associated with home development and home purchase decisions by builders and residents, is not mentioned in the sustainable development section. Ask Dr. Hanson

his views on the HTAI and its potential impact on the affordability and income gap equity considerations raised on page 258 of the Policy.

Response: The idea of combining housing and transportation into a single affordability index was presented to the Planning Board by one of our Growth Management speakers, Dr. Chris Nelson of Virginia Tech. The Board saw the utility of the concept and, in late May, considered adding it to the list of possible sustainability indicators included in the Final Draft Growth Policy. Planning staff noted that the Department prepares a Countywide housing affordability index and has detailed travel data, so it is likely that such an index could be prepared. However, there was insufficient time to prepare the index in time for the Council to see the results in July.

Councilmember Trachtenberg: Request a presentation by Planning Department staff on the suitability of the County's use of HTAI.

Response: Planning staff would be happy to arrange a presentation and notes that the Dr. Nelson's presentation materials are attached (as part of the Growth Management Speakers Series materials). A CD of the audio of Dr. Nelson's presentation is also included.

DESIGN EXCELLENCE

Councilmember Trachtenberg: the current Master Plan, and other planning documents, are intentionally vague as to the form and function of permitted new developments: Rockville Pike, for example, could in theory just as readily become Maryland's equivalent of Clarendon/Ballston as it could retain its current car-oriented character for decades to come. Therefore, ask Dr. Hanson what role the Council ought to have regarding the promulgation of a cohesive vision for design excellence for infill development and redevelopment; and ask him further how the Planning staff could do a better job of implementing the general vision set forth in the Draft Policy.

Response from Dr. Hanson: Our objective for the I-270/355 Corridor study, as well as the sector plans for the centers along the corridor, is to provide this information for the Council.

Planning staff notes that almost all land use policies and controls have a design component to them in that they shape the physical development in one form or another. The road code currently under consideration by the Council is an obvious example; it will have a direct impact on the design of the most public of all spaces—the streets and sidewalks. A less obvious example would be the Council's review and approval of a CIP budget item for a particular facility. Similarly, water and sewer policy has a strong but indirect impact on the design of residential developments.

Planning staff suggests that everyone involved in the planning and implementation of public facilities and/or the review of private development has a role to play in achieving design excellence. One objective would be to make sure that when land use decisions are made, that the consequences for design are considered. Another would be to make sure that public projects meet the design excellence goals discussed in the Growth Policy. The Council can encourage all levels of government to embrace design as a core value in land use and development and raise the profile of design in the County just it has recently done through green buildings and sustainability forums.

As described in the Growth Policy report, there are a number of tools available to pursue design excellence, ranging from guidance within master plans, standalone design guidelines, and review of public and private projects (mandatory referral and review of preliminary plans and site plans). Both the Council and the Planning Board could use these existing tools as well new initiatives to implement a design excellence initiative.

Councilmember Trachtenberg: What are Dr. Hanson’s views regarding the use of “form-based codes,” and what tools would staff require to employ this tool.

Response from Dr. Hanson: We will be considering the applicability of form-based zones as part of the revision of the zoning ordinance in the 2008 work program.

Planning staff notes that we have done extensive research into new zoning techniques and codes used in other jurisdictions and discussed in the planning literature, including form-based and other prescriptive codes such as the Smart Code developed by Duany Plater-Zyberk. The common theme among these codes is that they derive their inspiration from traditional main street type of development pattern by emphasizing the physical form of the public space rather than the individual buildings and uses. They focus on what is needed and desirable rather than what is prohibited.

The advantage of form-based codes is that they create clearly delineated urban design controls through maps and other graphic illustrations incorporated in the code – in contrast to the current practice of relying solely on the text without any illustrations. Form-based codes can be shorter and simpler in conveying the same information through drawings and graphics rather than words.

However, pure form-based codes require a paradigm shift in how the zoning controls are conceived, designed, and implemented. Creating a form-based code instead of a use-based code can make the implementation of the Zoning Ordinance more complicated. Many jurisdictions that have adopted form-based codes create them as a parallel option, sweetened through shorter approval processes and other incentives, while leaving the old code in place.

A form-based code works best when the development form is clearly defined either through the existing development pattern of streets and blocks, or there is a proposed development plan that lays out in exact detail as to where the new streets, blocks, open spaces, and other amenities should occur, and the resultant building form in terms of frontage, height and setbacks, combination of uses and other aspects of design. Defining a detailed layout and desired building form is essential to the success of a form-based code. Attempting to estimate the use, building height, or location on a 30-acre site, for example, would certainly lead to future changes in the code to reflect the actual conditions and circumstances of each property and the development program, and each minor variation could become a ZTA.

Conceptually, a form-based code would deal with only the form of the development and not worry about the uses thereby doing away with the extensive use lists typically found in traditional zoning controls. Staff discovered that most form-based codes rely on a combination of Euclidean and newer form-based techniques in creating a new set of zoning controls. Despite these issues, the

Planning Department is going to look at form-based code alternatives and use them as appropriate in the upcoming Zoning Ordinance reform.

There are no additional tools required for creating and implementing a form-based code at this time. The best opportunity for employing a form-based code will be the rewrite of the Zoning Ordinance.

Councilmember Trachtenberg: Page 280 proposes four principles to guide a design excellence initiative: design excellence as a core value, sustainability as a guiding principle, the importance of the public realm, and the further significance of pedestrian access. Ask Dr. Hanson if the public realm ought to be “an” important concern, as the Policy suggests, or “the” fundamental concern which guides design excellence.

Response from Dr. Hanson: It is a critical component of good design.

Planning staff also notes that the Growth policy report suggests that it is a very important concern that has to be balanced against other policy objectives such as environmental protection and housing affordability. It also depends upon how the design excellence initiative itself is defined. If design is considered as a stand-alone initiative concerned only with the physical form of the built environment then public realm could be “the” fundamental concern. But if the design excellence initiative is more comprehensive and includes other policy objectives as well, it could be just as important as some of the others.

Councilmember Trachtenberg: To help the Council better understand how Planning staff actually implements design excellence, ask Dr. Hanson to sketch for Council how staff applies the four principles in its review of actual project applications (e.g., 4900 Fairmont Avenue, Bethesda).

Response from Dr. Hanson: If the Council wishes, we can present a case study.

Planning staff notes that the application of the four basic principals permeates all levels of not just the review of a development proposal but all aspects of land use and planning. The first principle, that design excellence is a core value, is not just for the planning staff but for all County agencies and the Council in their review and development of laws and policies that affect physical development. The second, sustainability and environmental stewardship, is already a significant part of the County’s and the Planning Department’s review in terms of the application of the Forest Conservation Law, stormwater management, and protection of streams and other natural resources. The third principle, public realm, is covered by regulations pertaining to open spaces, building height and setback, and other zoning controls, the design of roads and sidewalks, and the design of parks and other community facilities. The fourth, pedestrian access, is reviewed as part of any project in terms of the adequacy of sidewalks and trails for access to locations within the project as well to the surrounding areas.

Councilmember Trachtenberg: to further help the Council better understand the Draft Policy's section on design excellence, Dr. Hanson should be asked to critique a project (e.g., the Discovery Building, Silver Spring) from the vantage point of this section. Would implementation of these four guiding principles, according to Dr. Hanson, accelerate or decelerate the approval process?

Response from Dr. Hanson: Planning staff's presentation to the Planning Board contained a critique of this type, which they have converted into a report format so that it could be included here. If done right, implementation of these principles can actually make the process more predictable and smoother. The time required depends on the complexity of the project and the quality and completeness of the application when it is presented for filing.

Planning staff notes that the application of these principles in itself should not accelerate or decelerate the review process. It depends upon how these principles are applied and the implementation of the overall review process. For example, if the project is well –designed and already has ground floor retail in appropriate locations in a mixed use project, has open space located in the right places with excellent amenities, and incorporates the best design practices for the various parts of the development it would not require any additional review time. It could, in fact, reduce the review process if the criteria are objective and can be certified through a third party such the LEED certification process. In larger projects requiring site plan review the application of these principles would not add any additional time since it could be accommodated within the time frame needed for other issues such as forest conservation, traffic assessment, and stormwater management.

Councilmember Knapp: Design and sustainability are concepts in the report and there is no nexus between them and the growth policy. There are no actionable items to implement them like the other two parts of the growth policy.

Response: Because the design excellence and sustainability initiatives in the Growth Policy were added by the Planning Board, it was not certain that the Council would embrace them and see them as essential components of a comprehensive Growth Policy initiative. That is why the Growth Policy focuses on making the case for further action on sustainability and design excellence, rather than prescribing a complete approach for both. Second, many of the implementation techniques, such as Zoning Ordinance, mandatory referral process, and master plans, already exist; with the Council's concurrence, the next step is to use these tools with a greater focus on good design and sustainability.

We recognize that directly implementing some of the concepts in the draft report through the Growth Policy resolution itself would be a challenge or even unwise. The Growth Policy establishes minimum standards of *adequacy*, which is a difference concept altogether from *excellence*, although walkability may be the

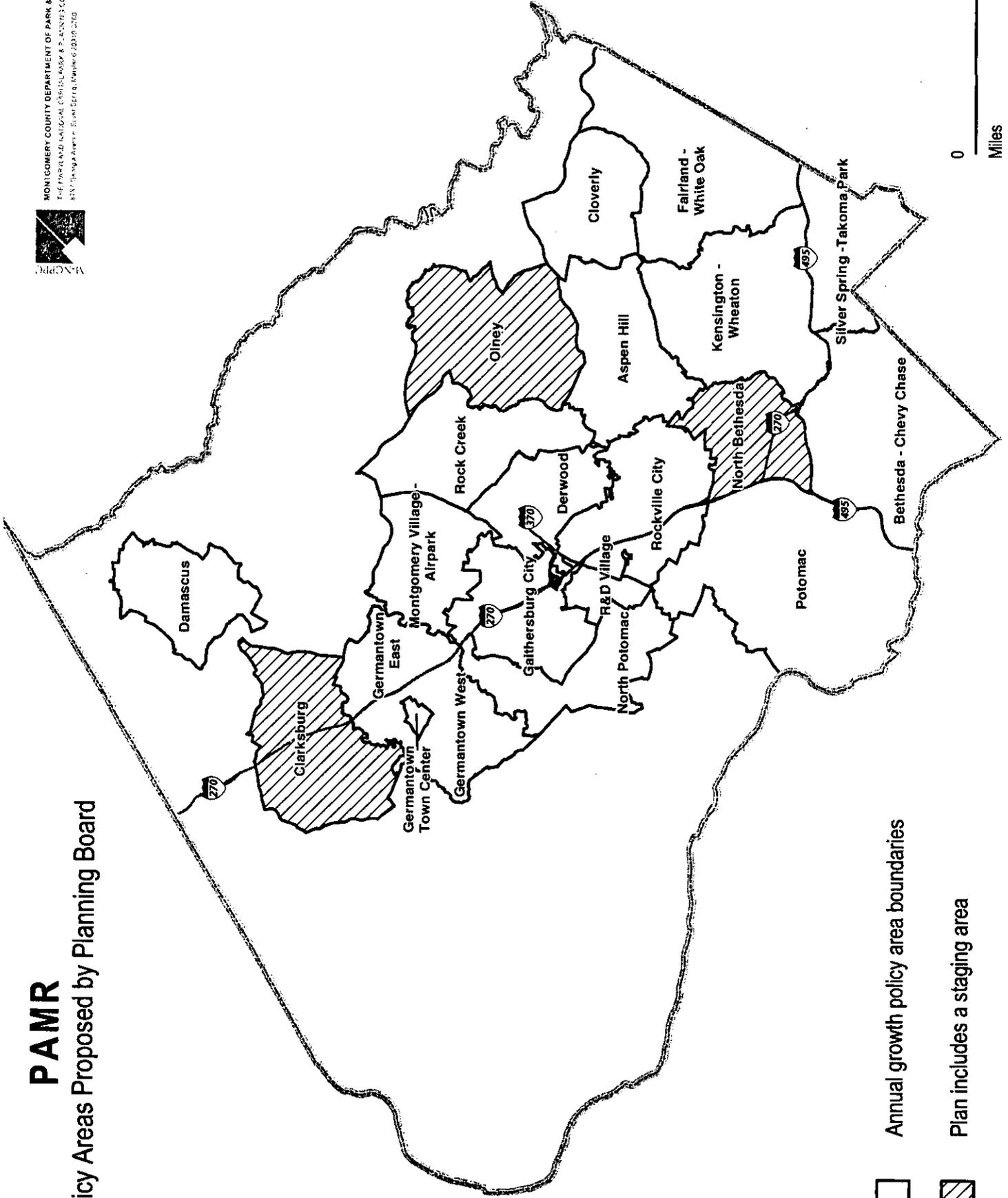
exception. If the Council supports these initiatives, further work is needed to develop some objective criteria and how to apply/assess them for actual projects. It would require a dedicated effort and allocation of staff resources to further develop these concepts into actionable items.

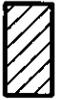
ATTACHMENTS

1. Written Materials from the Growth Management Speakers Series
2. Maps: PAMR Policy Area Options, Including Area Covered by Staging Elements in Master Plans (circles 1 to 3)
3. Recordation and County Transfer Tax for All Maryland Counties for \$300,000 and \$500,000 House (circles 4 to 6)
4. Maryland Transfer and Recordation Tax Table (circle 6)
5. Demographics of Movers Within Montgomery County, 2005 (circles 7 to 11)
6. Design Excellence Critique (circles 12 to 22)

PAMR

Policy Areas Proposed by Planning Board



-  Annual growth policy area boundaries
-  Plan includes a staging area

0 6
Miles



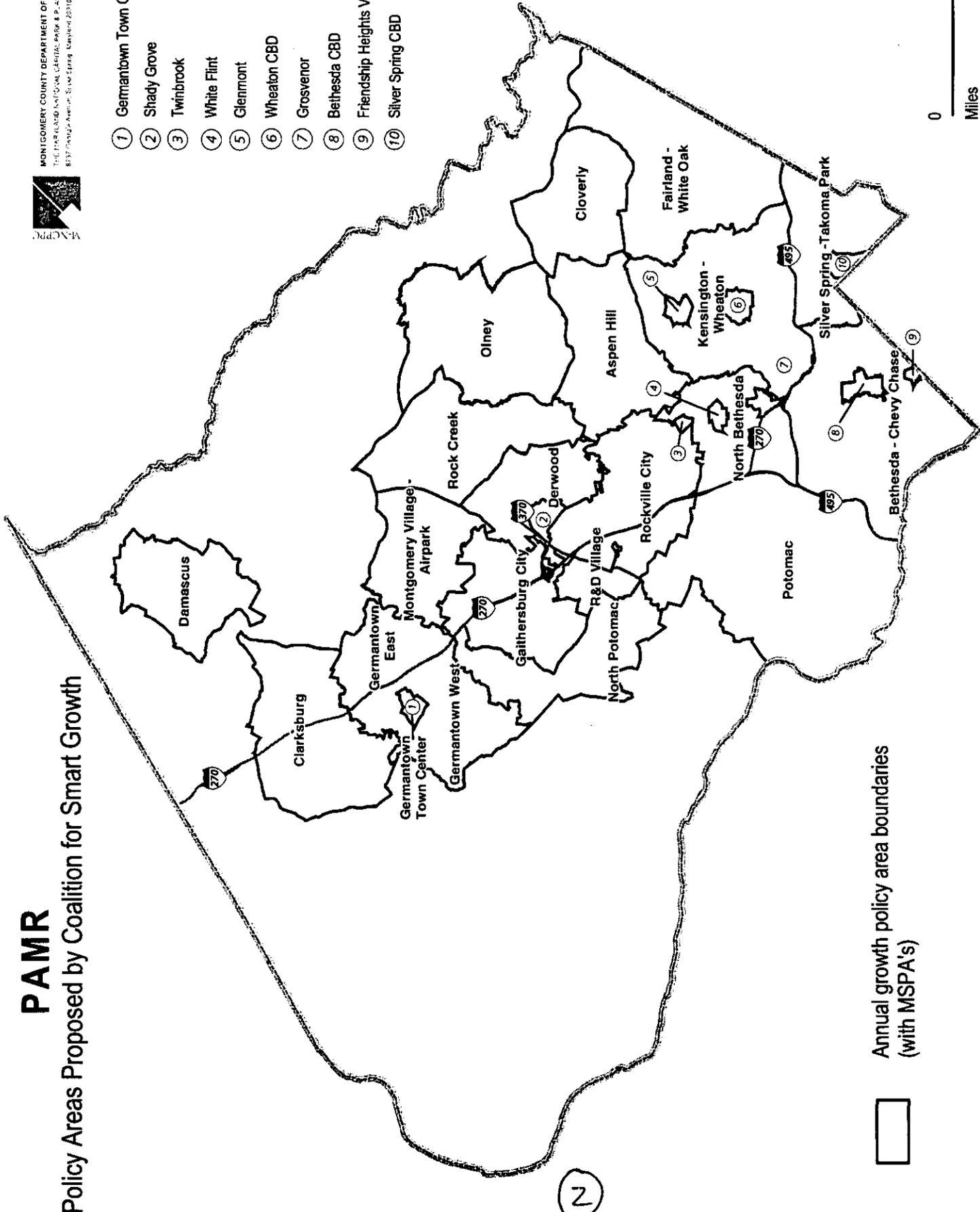
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Policy Areas Proposed by Coalition for Smart Growth



MONTGOMERY COUNTY DEPARTMENT OF PARK & PLANNING
 THE FAIRLAND NATIONAL CENTER, PARK & PLANNING CONSULTANTS
 8337 Fairland Avenue, Silver Spring, Maryland 20910-3260

- ① Germantown Town Center
- ② Shady Grove
- ③ Twinbrook
- ④ White Flint
- ⑤ Glenmont
- ⑥ Wheaton CBD
- ⑦ Grosvenor
- ⑧ Bethesda CBD
- ⑨ Friendship Heights Village
- ⑩ Silver Spring CBD



Annual growth policy area boundaries
 (with MSPA's)



②

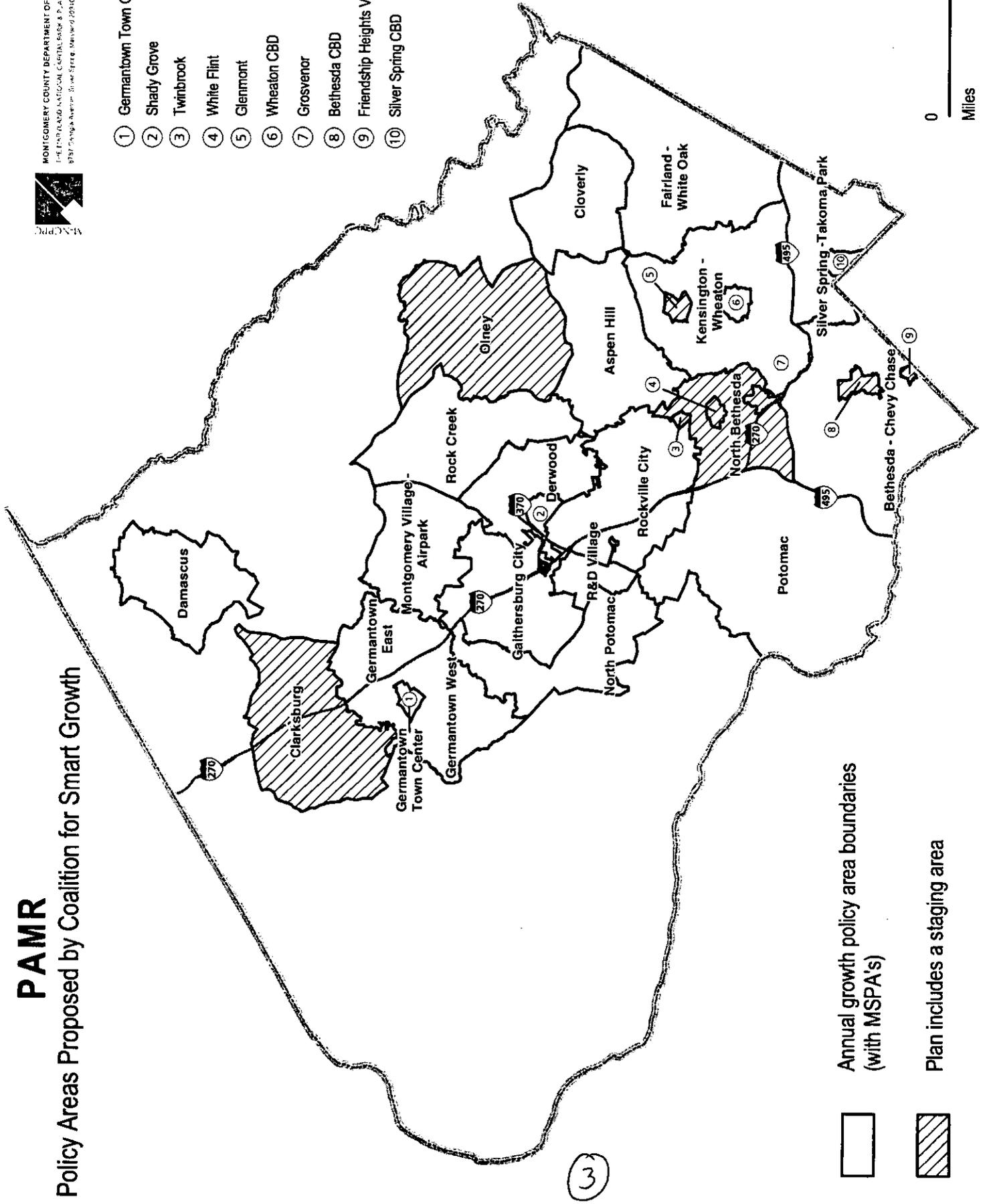
PAMR

Policy Areas Proposed by Coalition for Smart Growth



MONTGOMERY COUNTY DEPARTMENT OF PARK & PLANNING
 THE PLANNING NATIONAL CAPITAL PARK & PLANNING COMMISSION
 8337 Spring Avenue, Silver Spring, Maryland 20910-2780

- ① Germantown Town Center
- ② Shady Grove
- ③ Twinbrook
- ④ White Flint
- ⑤ Glenmont
- ⑥ Wheaton CBD
- ⑦ Grosvenor
- ⑧ Bethesda CBD
- ⑨ Friendship Heights Village
- ⑩ Silver Spring CBD



Annual growth policy area boundaries
 (with MSPA's)



Plan includes a staging area

0 6
 Miles

③

Recordation and County Transfer Tax for all Maryland Counties - \$300,000 House

	County Transfer Tax	Recordation Tax Per \$1000	Amount of County Transfer		Amount of Recordation Tax Paid - including exempt.	Total Tax Bill for Transfer and Recordation
			Paid -including exemptions	Transfer		
Allegany	0.0050	6.00	\$1,350	\$1,800	\$4,150	
Anne Arundel	0.0100	7.00	\$3,000	\$2,100	\$5,100	
Baltimore City	0.0150	10.00	\$4,500	\$2,780	\$7,280	
Baltimore County	0.0150	5.00	\$4,170	\$1,500	\$5,670	
Calvert	0.0000	10.00	\$0	\$3,000	\$3,000	
Caroline	0.0050	10.00	\$1,125	\$3,000	\$4,125	
Carroll	0.0000	10.00	\$0	\$3,000	\$3,000	
Cecil	10.00 flat fee	8.20	\$10	\$2,460	\$2,470	
Charles	0.0000	10.00	\$0	\$3,000	\$3,000	
Dorchester	0.0075	10.00	\$2,025	\$3,000	\$5,025	
Frederick	0.0000	10.00	\$0	\$3,000	\$3,000	
Garrett	0.0100	7.00	\$2,500	\$2,100	\$4,600	
Harford	0.0100	6.60	\$2,700	\$1,980	\$4,680	
Howard	0.0100	5.00	\$3,000	\$1,500	\$4,500	
Kent	0.0050	6.60	\$1,500	\$1,980	\$3,480	
Montgomery	0.0100	6.90	\$3,000	\$1,725	\$4,725	
Prince George's	0.0140	4.40	\$4,200	\$1,320	\$5,520	
Queen Anne	0.0025	6.60	\$750	\$1,980	\$2,730	
St. Mary's	0.0100	8.00	\$2,700	\$2,400	\$5,100	
Somerset	0.0000	6.60	\$0	\$1,980	\$1,980	
Talbot	0.0100	6.60	\$2,500	\$1,980	\$4,480	
Washington	0.0050	7.60	\$1,250	\$2,280	\$3,530	
Wicomico	0.0000	7.00	\$0	\$2,100	\$2,100	
Worcester	0.0050	6.60	\$1,250	\$1,980	\$3,230	
Montgomery *	0.0100	11.21	\$3,000	\$2,803	\$5,803	

* calculation with the recommended recordation rate of \$11.21

Recordation and County Transfer Tax for all Maryland Counties - \$500,000 House

	County Transfer Tax	Recordation Tax Per \$1000	Amount of County Transfers		Amount of Recordation Tax Paid - including exempt.	Total Tax Bill for Transfer and Recordation
			Paid -including exemptions	Transfer		
Allegany	0.0050	6.00	\$2,350	\$3,000	\$5,350	
Anne Arundel	0.0100	7.00	\$5,000	\$3,500	\$8,500	
Baltimore City	0.0150	10.00	\$7,500	\$4,780	\$12,280	
Baltimore County	0.0150	5.00	\$7,170	\$2,500	\$9,670	
Calvert	0.0000	10.00	\$0	\$5,000	\$5,000	
Caroline	0.0050	10.00	\$2,125	\$5,000	\$7,125	
Carroll	0.0000	10.00	\$0	\$5,000	\$5,000	
Cecil	10.00 flat fee	8.20	\$10	\$4,100	\$4,110	
Charles	0.0000	10.00	\$0	\$5,000	\$5,000	
Dorchester	0.0075	10.00	\$3,525	\$5,000	\$8,525	
Frederick	0.0000	10.00	\$0	\$5,000	\$5,000	
Garrett	0.0100	7.00	\$4,500	\$3,500	\$8,000	
Harford	0.0100	6.60	\$4,700	\$3,300	\$8,000	
Howard	0.0100	5.00	\$5,000	\$2,500	\$7,500	
Kent	0.0050	6.60	\$2,500	\$3,300	\$5,800	
Montgomery	0.0100	6.90	\$5,000	\$3,105	\$8,105	
Prince George's	0.0140	4.40	\$7,000	\$2,200	\$9,200	
Queen Anne	0.0025	6.60	\$1,250	\$3,300	\$4,550	
St. Mary's	0.0100	8.00	\$4,700	\$4,000	\$8,700	
Somerset	0.0000	6.60	\$0	\$3,300	\$3,300	
Talbot	0.0100	6.60	\$4,500	\$3,300	\$7,800	
Washington	0.0050	7.60	\$2,250	\$3,800	\$6,050	
Wicomico	0.0000	7.00	\$0	\$3,500	\$3,500	
Worcester	0.0050	6.60	\$2,250	\$3,300	\$5,550	
Montgomery *	0.0100	11.21	\$5,000	\$5,045	\$10,045	

* calculation with the recommended recordation rate of \$11.21

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JULY 1, 2006 MARYLAND TRANSFER AND RECORDATION TAX TABLE

<u>COUNTY</u>	<u>COUNTY (%)</u>	<u>STAMPS / \$1000 round up to nearest \$500.00</u>	<u>STATE (%)</u>	<u>COMMENTS</u>
ALLEGANY	0.5**	\$6.00*	.5	1st \$30,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required) *Effective 08-01-03 / ** Effective 07-01-05
ANNE ARUNDEL	1.0	\$7.00	.5	
BALTIMORE CITY	1.5	\$10.00*	.5	* Effective 09-01-04 1st \$22,000.00 exempt from recordation tax if owner occupied for 7 out of 12 months (Affidavit required).
BALTIMORE COUNTY	1.5	\$5.00*	.5	1st \$22,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required) * Note: Effective 07-01-01: paid to Baltimore County (<u>separate check</u>).
CALVERT	0.0	\$10.00	.5	Stamps eff. 11-01-99
CAROLINE	0.5	\$10.00*	.5	1st \$25,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required) 1st \$75,000.00 exempt from co. t.t. if owner-occupied AND 1st time homebuyer. (Affidavit required) * As to instruments dated 08-01-03 and thereafter.
CARROLL	0.0	\$10.00*	.5	* Effective 07-01-03: Collected by Tax Office - Payable to Commissioners of Carroll County
CECIL	\$10.00*	\$8.20**	.5	* Note: \$3.00 if agriculturally assessed. Flat fee. / ** Eff. 07-01-05
CHARLES	0.0	\$10.00*	.5	* Effective 07-01-01: Collected by Treasurer - Payable to Treasurer
DORCHESTER	0.75*	\$10.00*	.5	* Effective 07-01-03 1st \$30,000.00 exempt from co. t.t. if owner-occupied principal residence. (Affidavit required)
FREDERICK	0.0	\$10.00*	.5	* Note: Stamps eff. 07-01-00 - Effective 07-01-01: Collected by Treasurer - Payable to Treasurer.
GARRETT	1.0	\$7.00	.5	1st \$50,000.00 exempt from co. t.t. for all transactions.
HARFORD	1.0	\$6.60	.5	1st \$30,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required)
HOWARD	1.0	\$5.00	.5	
KENT	0.5	\$6.60	.5	
MONTGOMERY	1.0*	\$6.90**	.5	* for transactions over \$70,000.00 and all unimproved and commercial. < \$40,000.00 = .25% (co. t.t.) \$40,000 - \$70,000 = .50 % (co. t.t.) ** Effective 07-01-02 (1st \$50,000 exempt if principal residence): Collected by Treasurer - Payable to Montgomery County. Co. t.t. applies to DOT and Mortgages (not Purchase Money)
PRINCE GEORGE'S	1.4	\$4.40	.5	
QUEEN ANNE'S	0.5*	\$6.60	.5	* Note: Co. t.t. = .25% if 1st time homebuyer. (Affidavit required)
ST. MARY'S	1.0	\$8.00*	.5	* Eff. 09-01-01 (recordation stamps) 1st \$30,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required - must state: "primary" residence and will occupy 7 out of 12 months)
SOMERSET	0.0	\$6.60	.5	
TALBOT	1.0	\$6.60	.5	1st \$50,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required - must state: "primary" residence and will occupy 7 out of 12 months)
WASHINGTON	0.5*	\$7.60	.5	* Effective 08-07-03 (0.25% payable by seller if buyer is a "first-time homebuyer," i.e., buyer never owned residence in Washington County; has been a resident in Washington County continuously for past 12 months; and purchase price is less than \$115,000.00) 1st \$50,000 exempt from co. t.t. on all transactions.
WICOMICO	0.0*	\$7.00**	.5	* Note: Effective 12-08-00 ** Effective 09-01-03
WORCESTER	0.5	\$6.60	.5	1st \$50,000.00 exempt from co. t.t. if owner-occupied. (Affidavit required)

Eff. 08/16/04

NOTE: Eff. September 1, 1995, Maryland's First-Time Homebuyer Law reduces State Transfer Tax to .25% (paid by seller), if homebuyer qualifies as "1st-time home buyer". AFFIDAVIT REQUIRED.

Summary of Population and housing characteristics of residents who moved to different residences within Montgomery County between 2000 and 2005. (June 22, 2007)

Source: Analysis of M-NCPPC 2005 Census Update Survey data (see attached tables) by Pamela Zorich and Lisa Madigan Tate.

Mobility Status – general observations

- While the majority of Montgomery County residents lived in the same residence five years prior to the survey, approximately 213,000 people in 76,000 households moved within the County between 2000 and 2005. There are more intra-County movers (212,680) than new residents coming into the County (180,530).
- As of 2005, more than 42 percent of Montgomery County's household population had moved within the past 5 years, while 58 percent were still living in the same residence.
- The majority (54 percent) of recent-movers already was living in Montgomery County before 2000, and relocated to another residence within the County sometime between 2000 and 2005. These "within-movers" account for around 23 percent of the County's total household population.
- As detailed below, the population and household characteristics of within-movers generally fall somewhere in between those of in-place and in-moving residents. That is, within-movers tend to occupy a middle-ground demographically between long-time residents and people moving into the County for the first time. There are some interesting exceptions as well.

Age

- As a rule of thumb, mobility is for younger people. Montgomery County's within-movers are generally younger than the in-place population, but older than the in-mover population. With an average age of 31.7 years, within-movers are roughly 10 years younger on average than County residents who stayed in place, and slightly older than in-movers.
- Mobile residents tend to have younger children. Pre-school age children make up a significantly higher proportion of the population of within-mover households (10 percent) compared to in-place households (4 percent), but slightly fewer than in-movers (11 percent).
- Within-mover households had slightly more school-age children (20 percent) than either in-place (19 percent) or in-mover (17 percent) households.
- Most adults (30 percent) who moved within Montgomery County are between the ages of 30 and 44. In contrast, in-movers are more likely to be young adults, while in-place residents are more likely to be over age 45.

Race and Ethnicity

- Somewhat less than half of within-movers are non-Hispanic Whites (47 percent), compared to 63 percent of in-place residents and 48 percent of in-movers.

- The population that moved within the County included more minorities than the population that stayed in place, especially among Blacks (20 percent versus 14 percent).
- Within-mover households are more likely to have a foreign-born head of household or spouse (42 percent) than in-place households (30 percent) but slightly less so than in-mover households (40 percent).

Language

- Compared to the population staying in place, within-movers have more non-English speakers (44 percent versus 29 percent). Within-movers are slightly more likely to speak English at home than people who move in from outside the County.
- English proficiency follows the same pattern: lower than in-place residents, but slightly higher than among in-movers.
- Within-mover and in-mover households alike are roughly two times more likely to be Spanish speaking than in-place households.

Income

- The median household income of people who moved within the county was \$82,510 compared to \$90,535 for residents who stayed in place and \$72,035 for in-movers.
- Within-mover households earn incomes roughly comparable to those of residents who stayed in place. 40 percent of households that moved within the County earned incomes above \$100,000, compared to 44 percent among in-place households and 32 percent of in-mover households.

Education

- Within-movers are generally very highly-educated, with levels of educational attainment roughly comparable to the County population as a whole.
- 33 percent of within-movers hold a graduate, professional or doctoral degree. This is about the same proportion as in the in-place population, but well below the 46 percent of in-movers who hold an advanced degree.

Labor Force / Commute

- The majority of within-movers work in Montgomery County, followed by Washington DC. Within-movers are more likely to work inside the County than in-movers (63 percent versus 53 percent).
- Female within-movers have higher rates of workforce participation (76 percent) than in-place residents (64 percent).
- Within-movers are more likely to take public transit than in-place residents, but much less likely to do so than in-movers.

Housing

- Within-movers tend to have larger than average households, with 2.79 residents per household compared to 2.66 for the County as a whole. These are more established families with more school age children and not so many toddlers.

- Compared to in-place residents, within-movers are more than twice as likely to rent (30 percent versus 13 percent). They have higher homeownership rates than in-moving households (70 percent versus 45 percent).
- Within-movers are more likely than average to spend more than 30 percent of their income on housing, regardless of whether they rent or own.

Mobility Status

Montgomery County, MD.

2005 Census Update Survey

Where the householder lived in April 2000		Same	Moved		Total County
		Residence	Within County	Into County	
P O P U L A T I O N	Household Population	537,790	212,680	180,530	931,000
	% of Total Population	57.8%	22.8%	19.4%	100%
	% Female	52.9%	52.1%	53.1%	52.9%
	Age Distribution:				
	% 0-4 Years Old	3.7%	10.4%	11.4%	6.8%
	% 5-17 Years Old	19.4%	19.8%	16.8%	19.1%
	% 18-29 Years Old	9.6%	13.8%	18.0%	12.3%
	% 30-44 Years Old	16.1%	30.1%	35.2%	23.1%
	% 45-64 Years Old	35.0%	20.3%	15.0%	27.5%
	% 65-74 Years Old	8.4%	3.0%	1.7%	5.8%
	% Over 74 Years Old	7.8%	2.7%	1.9%	5.4%
	Average Age (years)	41.6	31.7	29.8	36.9
	Race:				
	% White	69.5%	57.5%	58.1%	64.0%
	% Black	14.1%	19.5%	19.7%	16.6%
	% Asian or Pacific Islander	12.1%	14.8%	15.3%	13.4%
	% Other	4.2%	8.2%	7.0%	6.0%
	Hispanic or Latino and Race ¹				
	% Hispanic or Latino ¹	10.4%	18.3%	16.6%	13.9%
	% Not Hispanic White	63.1%	47.1%	48.3%	55.7%
	Language Spoken at Home				
	Persons 5 Years and Older	517,795	190,675	159,860	868,000
	% Speak Language Other than English	28.8%	43.9%	44.1%	35.3%
% Speak English less than "Very Well"	7.4%	12.2%	12.8%	9.7%	
Educational Attainment:					
Persons 25 Years and Older	374,365	134,475	117,120	624,025	
% Less than High School Diploma	8.9%	7.1%	4.4%	7.8%	
% High School Graduate	24.2%	22.3%	15.2%	22.3%	
% Associate or Trade School	6.3%	7.1%	5.4%	6.3%	
% Bachelor's Degree	27.8%	30.4%	29.3%	28.6%	
% Grad, Professional or Doctoral	32.8%	33.1%	45.7%	35.0%	
L A B O R F O R C E	Number of Employed Residents ²	296,125	125,400	105,990	526,830
	% Females Who Are Employed ²	63.9%	76.3%	72.6%	68.2%
	Women with Children Under Age 6	25,360	22,875	19,220	67,840
	% Employed ²	67.5%	74.3%	63.2%	68.5%
	Work Location:				
	% Montgomery County	60.9%	63.0%	52.6%	59.9%
	% Prince George's County	5.2%	4.0%	6.4%	5.1%
	% Elsewhere in Maryland	5.0%	4.1%	5.1%	4.8%
	% Washington, D.C.	20.7%	19.9%	26.8%	21.5%
	% Virginia	7.3%	7.9%	7.6%	7.5%
	% Outside MD-VA-DC	0.9%	1.1%	1.6%	1.1%
	Work Trip:				
	% Driving	79.9%	78.3%	69.0%	77.4%
	% Alone	75.2%	72.9%	62.7%	72.0%
	% Carpool	4.8%	5.4%	6.4%	5.3%
	% Public Transit or Rail	12.7%	15.0%	23.3%	15.5%
	% Walk/Bicycle/Other	2.6%	2.3%	3.8%	2.8%
% Work at Home	4.7%	4.3%	3.9%	4.4%	
Average Commuting Time to Work (minutes)					
Overall	31.3	32.9	33.9	31.0	
By Car	28.8	30.1	30.4	29.4	
By Public Transit	49.0	49.3	46.7	48.5	

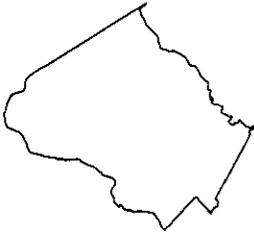
^{*} Insufficient data for reliable estimates.

¹ Those of Hispanic origin may be of any race.

² Ages 16 and older and employed full- or part-time.

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC.

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Mobility Status (continued) 2005 Census Update Survey

		Same Residence	Moved		Total County
		Within County	Into County		
Households by Structure Type		202,150	76,260	71,590	350,000
% Total Households by Mobility Status		57.8%	21.8%	20.5%	100.0%
Average Household Size		2.66	2.79	2.52	2.66
Tenure:					
% Rental		12.9%	29.7%	54.5%	25.7%
Average Monthly Costs:					
Homeowner		\$1,481	\$2,060	\$2,064	\$1,687
Renter		\$1,033	\$1,148	\$1,278	\$1,167
Residence in April 2000:					
% in Same Home		100.0%			57.8%
% Elsewhere in County			100.0%		21.8%
% Elsewhere in Maryland				21.9%	4.5%
% D.C or Northern Virginia				19.4%	4.0%
% Outside Metro Area				58.7%	12.0%
Median Years in Same Home		14	2	2	6
Average Age of Household Head		56.7	44.7	40.2	50.6
H O U S I N G	% Households with Foreign Born Head or Spouse	29.7%	42.3%	39.8%	34.8%
	% Households Speaking Spanish	9.7%	15.9%	15.5%	12.5%
	Households by Type:				
	% Family Households	76.1%	74.6%	69.7%	74.2%
	% Married-Couple	64.5%	58.2%	60.0%	61.8%
	% Single-Parent	9.6%	13.3%	7.9%	10.2%
	% Nonfamily Households	23.9%	25.4%	30.3%	25.6%
	% Householder Living Alone	22.6%	23.0%	26.5%	23.5%
	Persons in Households:				
	% 1 Person	22.6%	23.0%	26.5%	23.5%
% 2 Persons	33.1%	25.3%	30.7%	30.8%	
% 3 Persons	16.1%	20.9%	17.7%	17.5%	
% 4 Persons	16.9%	18.2%	17.2%	17.1%	
% 5+ Persons	11.3%	12.7%	8.0%	11.0%	
Average Number of Cars		2.0	1.8	1.6	1.9
% of Households with Computers		86.9%	91.9%	93.0%	89.0%
% of these visiting M-NCPPC website		27.2%	33.4%	28.9%	28.9%
I N C O M E	2004 Household Income Distribution:				
	% Under \$15,000	4.1%	3.9%	4.4%	4.2%
	% \$15,000 to \$29,999	6.7%	7.5%	7.9%	7.3%
	% \$30,000 to \$49,999	12.2%	14.2%	20.4%	14.5%
	% \$50,000 to \$69,999	14.2%	16.4%	15.8%	15.0%
	% \$70,000 to \$99,999	18.6%	18.9%	18.8%	18.6%
	% \$100,000 to \$149,999	21.5%	21.3%	19.4%	20.9%
	% \$150,000 to \$199,999	9.8%	8.4%	6.8%	8.8%
	% \$200,000+	12.9%	9.4%	6.4%	10.7%
	2004 Median Household Income	\$83,880	\$82,510	\$72,035	\$83,880
% of Households Spending More Than 30% of Income on Housing Costs:					
% Homeowners		13.2%	24.2%	21.4%	16.9%
% Renters		42.1%	41.3%	39.1%	40.7%

* Insufficient data for reliable estimates.

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC.



Design Excellence Critique

As part of the design excellence work for the growth policy, Planning staff did a quick urban design analysis of Discovery headquarters and a more detailed comparison of two open spaces: City Place in Silver Spring and Barnes & Noble in Bethesda. The urban design analysis of the Discovery Headquarter is in PowerPoint and we would be glad to share it with the Council.

Planning staff member Joshua Sloan, ASLA, conducted the design critique of City Place and Barnes and Noble below.

Examples of Urban Design for Analysis

A comparison of two corners in retail areas: Colesville Road & Fenton Street (City Place) and Woodmont Avenue & Bethesda Avenue (Barnes & Noble).

Purpose. The purpose of this exercise is to analyze two highly visible corners in retail areas to determine what design principles have been employed to enhance the quality of life for residents and pedestrian users. In particular, we would like to verify, through a more rigorous framework, that good design leads to more successful public space, while poor design leads to less successful public space. Further, we would like to show that a framework for critical analysis and guidance is an important tool to achieve design excellence in Montgomery County.

Method. A table of basic physical attributes is provided so we can compare the sites in terms of basic site analysis. The similarities and differences between the two are then discussed. Next, a qualitative description of each is provided including the context and more general features related to design principles.

Conclusion. From the analysis and discussion, we would like to see if there are basic design principles that are used or neglected in each site that might lead to their respective success. On the other hand, if there are no distinct design differences, we may conclude that factors beyond a designer's control are at play.

City Place, Silver Spring



Barnes & Noble, Bethesda

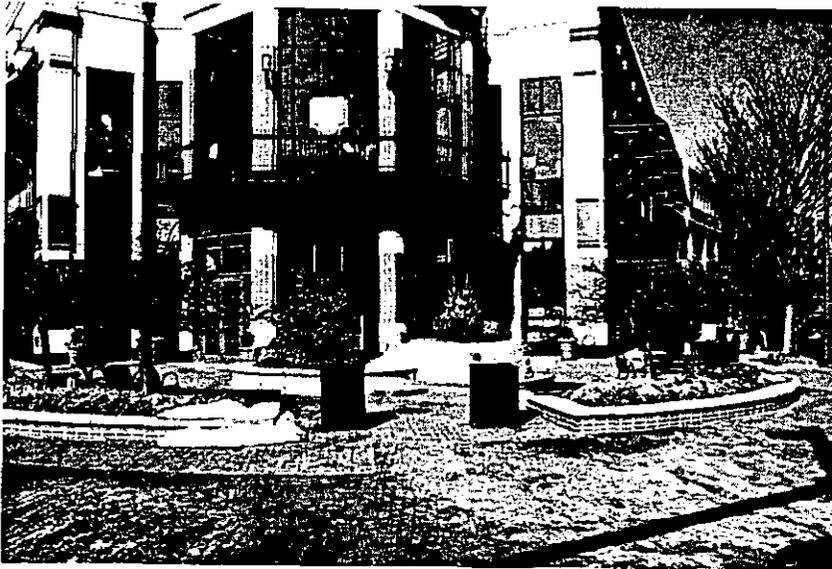
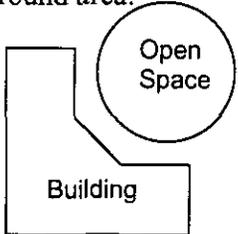
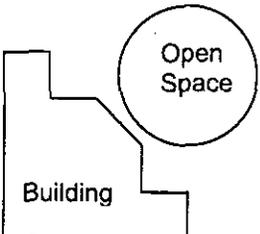
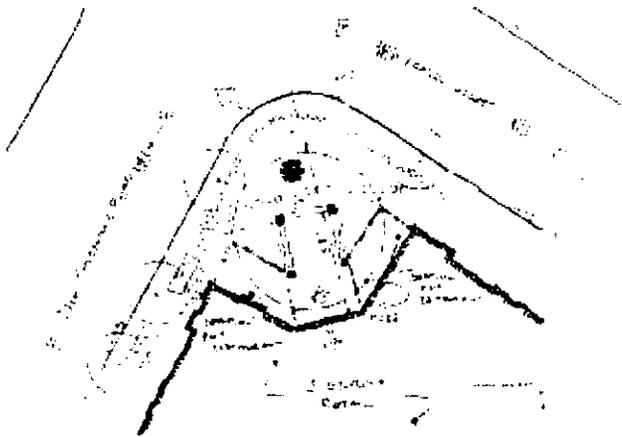


Table 1: Basic Site Analysis

Site Feature	City Place	Barnes & Noble
Public Space Area	Approx. 25' radius circular area.	Approx. 25' radius circular area.
Orientation	Faces north.	Faces east.
Adjacent Architecture	3-storey +retail mall & outdoor restaurant seating; no first floor windows along streets; portico covers mall entrance.	2-storey bookstore; windows along both streets.
Adjacent Streets	45' wide four-lane street w/no parking & 60' wide five-lane street w/no on-street parking; two bus stop shelters.	40' wide & 35' wide streets w/on-street parking.
Street Trees	Yes	Yes
Architectural Enclosure	Building partially wraps around area: 	Building only provides enclosure on one side: 
Plantings	Two container hedges frame walkway into the building; no diversity.	Raised planters enclose the area and are provided in conjunction with the fountain; diverse types.
Focal Point	Fountain.	Fountain.
Confronting Architecture	Urban walls with retail and offices on each corner and along streets. Relatively strong sense of enclosure from buildings.	Open to large intersection, surface parking, and green space on two sides; urban wall of retail along adjacent buildings and one confronting street; minimal sense of enclosure from buildings.
Seating	None.	Diverse bench arrangements; raised planter coping.
Pedestrian Patterns	Sidewalk wraps around the public space and through it to the building's entrance.	Sidewalk wraps around the public space and through it to the building's entrance.

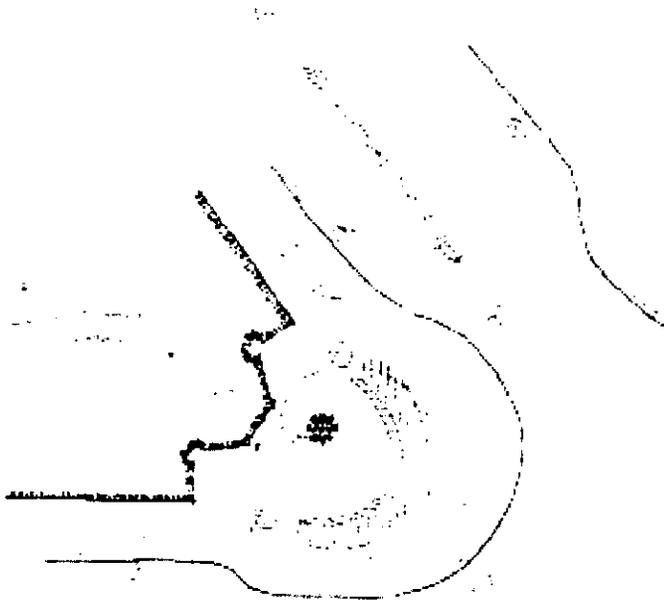
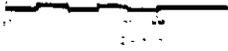
Site Feature	City Place	Barnes & Noble
Paving	Gray stone & red brick pavers.	Red brick in various patterns.
Street Lights	Yes.	Yes.
Traffic Light at Intersection	Yes.	Yes.
Traffic Noise	High.	Moderate.
Closed-Off Areas	Restaurant seating separated by grade and railings.	None.
Street Layout	90 degree intersection.	45 degree intersection.
Grade	Slopes a bit as you move from Colesville Road around the public space to Fenton Street; a drop of 12-18" or so.	Flat.

There are many similarities between these sites: both have streetlights, street trees, wide sidewalks wrapping around the central spaces, fountains, are predominantly paved, have nearby retail, and have about the same amount of available usable space. A key difference, however, is that the usable public space at City Place is decreased to a great extent by the outside restaurant seating and the hedges framing the entry to the mall. Further, these restaurant areas are completely inaccessible to the public from the public space – even to patrons of the restaurants (they must enter from within the mall). There are numerous other differences outlined below.

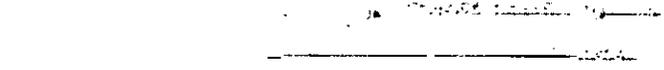


CITY PLACE

- Legend for the City Place map:
- Street
- Building
- Plot
- Plot Boundary
- Plot Area
- Plot Number
- Plot Name
- Plot Area
- Plot Name



BARNES & NOBLE



- Legend for the Barnes & Noble map:
- Street
- Building
- Plot
- Plot Boundary
- Plot Area
- Plot Number
- Plot Name
- Plot Area
- Plot Name

Regarding the site itself, there are three environmental differences that are immediately apparent from the data: the orientation, the sense of enclosure, and the noise level. There is little sunlight at the corner of City Place, especially during winter. B&N, on the other hand, has a good deal of sunlight throughout the day. Further, the enclosure provided by the mall and the surrounding urban fabric is much stronger than the more open space in front of B&N. This is also due to the angle of intersection of the streets: City Place is at a traditional 90° intersection, while the B&N public space sits at the point of a 45° intersection. These intersections are also distinct in their level of ambient traffic noise, which is especially pronounced at City Place when buses come through. These are all site constraints that any designer will have to respond to; the other differences are related more to the existing designs.



In the case of City Place, the portico increases the sense of enclosure and the layout of the plantings and restaurant seating areas cuts off all other usable space. The B&N designers, however, provided enclosure that was lacking with the raised planters containing ornamental trees to impart a sense of scale necessary for pedestrian comfort.

The paving of each site is distinct – City Place interrupts the brick streetscape with gray stone paving of various sizes and shades and B&N uses a different brick pattern to distinguish itself from the streetscape. In the case of City Place, the gray stone is not related to any architectural details and is a cold color for a sunless space. The B&N paving is warm and reflects the brick in the streetscape as well as brick in the architecture, while setting itself apart by its pattern.

Another point of contrast is the lack of interesting plantings at City Place. Although the orientation and amount of shade decreases the palette available, there are numerous shrubs, perennials, and annuals that could be employed for greater visual interest. Furthermore, this planting is not integrated into the design – it only serves to dictate pedestrian movement. The planting at B&N is integrated into the layout of seating and the fountain; it also provides enclosure, color, and texture.



The last point of contrast: the lack of seating at City Place. This may be to discourage loitering by the users of the buses, but it also prevents the use of the space by mall patrons or area shoppers and workers.

Discussion of Design Principles

Durability of a public open space is fundamentally a matter of materials and craftsmanship. In this regard, both sites use durable material and their level of craftsmanship is similar if not exemplary.

Adaptability is a characteristic that is distinctly lacking from City Place. On the other hand, is the B&N open space built to endure a change of use? Could the planters be redesigned as fountains or be used as expanded seating; could they become a foundation for a shelter or kiosk of some kind? It seems possible, if unlikely. There are other changes (e.g., to the seating or fountain) that could be done with relative ease to accommodate vendors or artists to show their wares or for musical performers to attract a crowd, that can be made to the B&N space without a complete facelift. A better design might have been a more adaptable space. Conversely, if it is determined that the public space at City Place must be re-designed, it is likely that its features will be replaced rather than adapted. There is really no space that can be used for any purpose besides standing for the bus or walking past or into the mall. This speaks to two things: the sustainability of the site and its usability. The former quality addresses three further topics: environment, economic, and socio-cultural. The latter quality, or lack thereof, is the next topic.

In terms of environmental sustainability, it can be argued that neither are particularly "green," but the City Place site has no permeable surfaces and does nothing to encourage more pedestrians to frequent the area. Thus, it contributes nothing from a water-recharge

and an air-quality standpoint. B&N offers a better pedestrian environment, which may lure a few more people out of their cars to stroll and sit along the street; it also has some permeable surface, which decreases run-off. If there are storm water vaults on either site, they are hidden. Economically, only the B&N site is a visual attraction for area shoppers. As we mentioned in the discussion of adaptability, the B&N site offers much more in the way of interaction between people and the possibility of artistic offerings.

Assessment:	Durability:	8 points for CP	8 points for B&N
	Adaptability:	2 points for CP	6 points for B&N
	Sustainability:	0 points for CP	6 points for B&N

The first question one must ask to determine whether something functions well is, "What is its purpose?" In both cases, the space should provide a comfortable and safe place for public use including, sitting/resting, socializing, easy access to storefronts and through the site for all people, spontaneous or planned cultural opportunities, and visual interest to attract people so that it is used.

City Place is easily accessed through this space, although the stone pavers are a little slippery; the biggest problem getting around City Place's open space is the location of the bus shelters, which restricts pedestrian traffic. (We'll save the fact that the dining areas are completely inaccessible for later.) B&N is equally, if not a bit more, accessible. The lack of any place to sit at City Place limits its functions considerably and its focal point is not conventionally attractive, although it has a certain interest. B&N, on the other hand, has many more useful features and only lacks a place to get out of the rain, which is offered by the portico at City Place. A simple test of function is whether people actually use a site for more than just a sidewalk to get through. By this measure, B&N is far more functional than City Place.

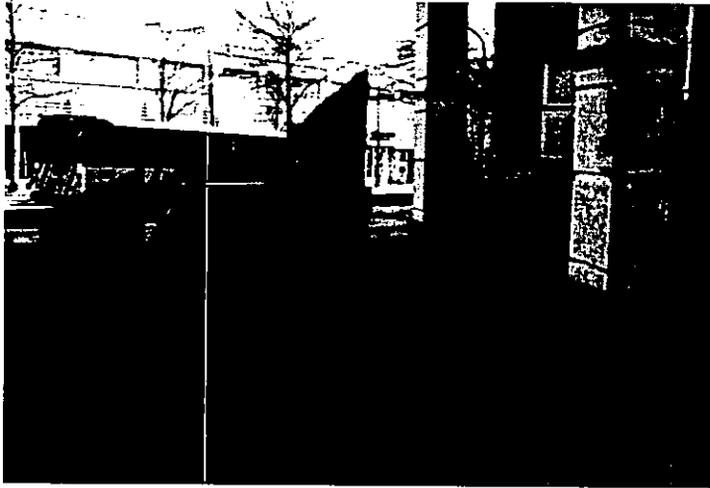
Safety is a minor issue at both sites: they are well lit and visually accessible.

Assessment:	Functionality:	4 points for CP	7 points for B&N
	Accessibility:	7 points for CP	8 points for B&N
	Safety:	8 points for CP	8 points for B&N

Visual appeal: These qualities are what many would describe as subjective. That being said, unless a building or landscape is obviously avant-garde, most people across cultures agree on what visually appeals to them and what does not. There are many properties that one can discuss when critiquing a place's distinctiveness and contextual sensibility: patterns, rhythms, balance, proportion, continuity, etc.

City Place has a very distinctive fountain with an unfortunate metal seating deterrent around its perimeter, which sits on the strong diagonal axis leading straight out the front door of the mall. All of the materials of the surrounding paving, fountain walls, and interior boulders that form the fountain are complementary gray stone (although the use of yellowish exposed-aggregate concrete is discordant). It seems relatively well balanced to the site, but somewhat out of proportion with the pedestrian environment. This is

probably due to the lack of other structures such as seating or any plants to soften the considerable hardscape. The overall effect of this space is cold and unwelcoming.



B&N also has a fountain, but the materials and scale are softer. Although the yellowish stone and attached planter built with off-white concrete is an unusual choice given the character of the rest of the site, it is unlike any other, and, like the City Place fountain, would provide a landmark for someone needing directions.

The plantings and dining areas at City Place could have been used to help activate the area, but they are above grade and fenced off from the public space. B&N, on the other hand, has windows for window-shopping, green space to sit near and under, and unrestricted access through the site.

The benches at B&N repeat materials in different forms and are complementary to the litter bin materials and design. Although the B&N space isn't necessarily an example of outstanding design, overall, it does have more virtues of design than shortcomings.

In terms of context, because the B&N space was developed over a similar time period as the adjacent development it is seamless with its surroundings. The fact the City Place was designed in a more urban environment with a more dynamic and unwieldy context makes responding to that framework much more difficult.

Assessment:	Distinctive:	3 points for CP	6 points for B&N
	Contextual:	4 points for CP	9 points for B&N



Social value: These qualities, viz., competitiveness, affordability, and diversity, are more appropriate criteria for developments that contain communities, not necessarily the buildings and spaces created within those communities. These spaces may contribute to the competitive edge of the area they serve or to attracting a more diverse population. But they will do so only to the extent that they have been well designed in terms of the qualities described in detail above. As far as making a community more affordable, I don't think there is really any data that would show these types of spaces make a community more affordable. On the contrary, nice open spaces seem to lead to higher property values, which would have the opposite affect.

Conclusion

One conclusion we need to make is on our framework for design excellence. This analysis has shown that a number of design principles – scale, layout, enclosure, character, connections, quality, etc.- can easily be discussed and analyzed within our framework of the qualities of a well-designed place. They provide a rationale to critique a given design (or existing place/building/community) in a logical and defensible way. How these are implemented, and through which new and existing regulatory tools, is yet to be determined. Also, the numerical system is really an ad-hoc means to make a judgment about these two spaces. I don't know that it can be applied in any systematic way to proposals for development.

Although we have seen that site constraints are responsible for some problems with each site, the designable elements that should respond to these constraints are present to a lesser degree at City Place and to a greater degree at B&N. The “grades” show that City Place ($36/80 = 45\%$) fails on many levels, both as acceptable design and as a public amenity space. B&N ($58/80 = 73\%$), on the other hand, fares better but points to the fact that even designs that work can be made better. That is, this is an average space, not a fantastic space; a good design, not an excellent design. In the future, we need to focus

more on distinctive, adaptable, sustainable projects. Context, safety, functionality, and the other qualities are easier to visualize and critique. A framework for more intangible qualities and design principles is necessary to fill Montgomery County with superior landscapes, buildings, and communities.

This analysis also shows that these two sites do employ design principles to their benefit and, therefore, the community's quality of life, and neglect design principles to their peril. And when design principles are lacking, the community receives no benefit from a public space either. So if we are to require public space, which we presume is to enhance the community's quality of life, we need to ensure that it functions as a strong, usable, beautiful, and socially beneficial space. This type of analysis may point to a framework for designing regulations, submittal requirements, and findings that will encourage better design.



MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

MICHAEL KNAPP

MEMORANDUM

TO: COUNCILMEMBERS
COUNCIL GROWTH POLICY STAFF
PLANNING BOARD AND PLANNING BOARD STAFF

FROM: MIKE KNAPP 

DATE: 24 JUNE 2007

RE: QUESTIONS AND COMMENTS ON FINAL PLANNING BOARD DRAFT OF
2007-2009 MONTGOMERY COUNTY GROWTH POLICY

As the Planning, Housing and Economic Development (PHED) committee begins its review and consideration of the 2007 – 2009 Growth Policy, and before the this topic comes before the full council I have some initial thoughts and questions that may require additional information that I wanted to submit. As I have found in two previous iterations of this process, questions seem to beget additional questions, so I assume that this will again be the case. Nevertheless, these questions seem an important place to begin, and are not in any particular order.

- 1) As I reviewed the principles that were used by the Planning Board staff and Planning Board, I couldn't help but be struck that while there are two references to the robustness and diversity of Montgomery County's economy there didn't appear to be analysis identifying what the impact of this plan would have on forwarding the economic goals of the County. Was the economic analysis of the recommendations contained within this plan conducted, and if so, could that information be made available for the Council's consideration?
- 2) Over the past two years, there have been a number of new policy initiatives or modifications approved by the County Council including but not limited to, changes to the MPDU requirements, increases in permitting fees, green building

requirements, and requiring sprinkler systems. Was there analysis (economic or otherwise) providing any indication about the impact of these policies on current development, and what the subsequent interplay between these policies and the recommendations contained within the draft Growth Policy might be?

- 3) A very helpful overview of the history of the County's growth policy is contained with this draft thus providing us with over 30 years of history of attempting to connect growth to adequate infrastructure. Since during that 30 year period, there continues to be a debate about the success or failure of a growth policy it would seem that either at its outset, or during the intervening time, there must have been some empirical data generated to indicate how successful the plans have been, what percent of the infrastructure needs identified were actually constructed, and how much revenue has been generated over some period of time and what percent of infrastructure those funds could have provided. It would be helpful for the Council's deliberation to have some understanding of any assessments that have been conducted, and how those assessments were used in the formation of this plan's recommendations.
- 4) Building upon Question #3, there have been numerous revenue measures identified over the years to fund infrastructure. Most recently, the previous Council raised impact taxes as recommended by the Planning Board. During the past two years, the actual receipts collected have fallen far short of the initial projections assumed in the recommendations for these taxes. How successful have previous revenue measures approved by the Council as a result of a growth plan deliberation, or otherwise, been at achieving the anticipated level of revenue for infrastructure development? What degree of risk (or likelihood of success) is assumed in achieving the revenue options and projections identified in this plan?
- 5) On page 11 of the Summary Staff Report it states "Planning staff suggests that the biennial component of the Growth Policy include..." and it then goes on to outline a series analysis and reports linking growth, Master Plan infrastructure requirements and many other factors with the biennial CIP process. I think this is outstanding concept, and believe this should be undertaken. How much of this work is already being undertaken within the Master Plan and Development Review processes, and can any of the information outlined on Page 11 be provided to the Council for its consideration of this policy?
- 6) On page 15 of the Summary Staff Report it indicates that many of the details of the PAMR process as outlined by staff does not include specific procedures on

key elements, but that this information could be made available quickly. Too often, the details are what make or break the implementation of policies. Could the key details of PAMR be provided to the Council for its consideration of this policy?

- 7) Is there a summary table outlining all of the changes proposed by the Planning Board in its recommendations relative to the existing policies and procedures? If not, can one be provided?
- 8) During the Council's previous review of the growth policy as it related to Local Area Transportation Review (LATR), the Council provided the discretion to the Planning Board to assess the impacts of traffic congestion to as many intersections as required, not just those immediately adjacent to the development being proposed. How often was this latitude used, and what was the result on the proposed development?
- 9) The concept of sustainability is one that permeates throughout the draft policy submitted by the Planning Board, and is one that we as a County must better understand, define and ultimately implement policies to support. How are the policies proposed in the draft plan actually linked to the concept of sustainability, and how does the Council's action on these proposed policies get our community to a higher level of sustainability?
- 10) Within the Summary Staff Report there are various references to the growth that is anticipated to occur within the region, and as a result what percent of that growth Montgomery County can expect to see. It is my understanding that the projections used to generate this information is provided to the Metropolitan Washington Council of Governments by the region's planning directors. Historically, the COG projections have been fairly accurate, and if anything somewhat conservative. If this is the case, then the growth projections contained within the COG data include Montgomery County data generated by Montgomery County. Do you agree with the COG projections and do they accurately reflect the Planning Board's, or planning staff, projections? If not, then what are our growth projections and how do they differ from the COG projections?
- 11) There are references within the Final Draft of the Growth Policy to the concept of "build-out." Could you provide a definition of build-out, and identify how many other suburban jurisdictions within our region have reached build-out? If any

jurisdictions exist, could you also identify when they reached build-out and what has occurred in those communities in the time since build-out occurred?

- 12) The concepts of "smart growth" and sustainability as outlined in this draft policy generally assume higher utilization of transit, pedestrian accessibility, mixed-use and density in transit corridors. Could you provide insight into how the Planning Board and planning staff assessed these concepts along the I-270 corridor giving consideration to the Corridor-Cities Transitway, and how the policies contained within this draft incentivize the implementation of transit-oriented development along this corridor?
- 13) Building upon Question #12, the region's Transportation Planning Board recently completed a Regional Mobility and Accessibility Study (RMAS) looking at various growth trends within the region that could impact sustainability, traffic congestion and land use. Were any of the concepts contained within the RMAS explored as it relates to implementation of PAMR, or incentives for development in certain areas (certain activity cluster for example)?
- 14) The growth policy is a tool for identifying and prioritizing infrastructure to ensure adequate public facilities to accommodate growth and/or existing communities. Throughout draft policy, the concept of maintaining existing communities is identified as an important theme, yet another important theme is to capture the marginal cost of additional development to ensure that development pays for itself. If there is an assumption that infrastructure has not adequately kept pace, then how does capturing marginal costs address the concept of maintaining existing communities?
- 15) Clarksburg – the development of the community of Clarksburg has begun – the recommendations contained within the draft plan identify significant increases in impact taxes to support this development. Could you provide the economic analysis that was conducted to identify how much of the infrastructure required for this community will be funded through these increased taxes and fees, and how these taxes and fees may either increase or retard the rate of growth in the community?
- 16) On Page 13 of the slides that were presented to the Council last week, there are two slides on the top of the page that appear to contradict one another on which I would like further clarification. The slide entitled "Regulation and Housing Prices" identifies the concept that as the supply of land decreases, the cost of housing of housing will increase, especially since the County can't add enough

supply to reduce the demand for market rate housing. However, on the immediately adjacent slide entitled "Affordable Housing and Impact Taxes" the concept is put forth, that in spite of the application of the basic economic principle of supply and demand and reduced supply of land, purchasers of land will offer less for undeveloped land thereby reducing the price of land. Is there any actual market or economic data that bears out these two seemingly inconsistent concepts?

17) There has been a great deal of discussion regarding the appropriate measure for adequacy within our schools. Was the plan put forth by the Planning Board developed in consultation with Montgomery County Public Schools to ensure that it is consistent with the programming elements that are required by the schools? Also, how is the utilization of temporary portables identified in the analysis of adequacy relative to an optimal standard?

Thank you for your attention to these questions and issues. Should you have any questions, or require clarifications to what I have submitted here, please don't hesitate to contact me.