

Glossary and Definitions of Key Variables

In some cases, terms used in the Annual Growth Policy were developed specifically to express a concept or a procedure that is unique to Montgomery County. In other cases, standard terms (such as “job”) have a very specific meaning when used in the AGP. The following glossary was compiled to give more of an explanation to these terms than is possible in the AGP resolution.

Following the glossary is a discussion of key variables used in the calculation of transportation staging ceilings and in Local Area Transportation Review.

General Definitions

Adequate Public Facilities Ordinance (APFO): Chapter 50, Section 35(k) of the Subdivision Ordinance requires the Planning Board to make a finding that existing or programmed public facilities are adequate before they can approve a preliminary plan of subdivision.

Alternative Review Procedures: These include 1) a provision permitting development in Metro Station Policy Areas to meet staging ceiling and intersection congestion requirements by paying a fee, mitigating the equivalent of 50 percent of the project’s trips, joining a transportation management organization, and other requirements; 2) a provision that permitted up to 300 units of housing to be developed in certain policy areas without making roadway or intersection improvements in exchange for paying a fee and other requirements (no longer available), and 3) a provision that permitted non-residential development to meet its roadway and intersection improvement conditions by paying an excise tax (no longer available).

Capital Improvements Program (CIP): A document recommended each year by the Montgomery County Executive and adopted by the County Council which contains a six-year program for capital expenditures to expand and renovate Montgomery County’s public facilities.

Ceiling Element: The Annual Growth Policy document adopted by the County Council by July 15 of each year. It contains a review of existing and programmed public facilities, including setting transportation staging ceilings for each of 27 policy areas and testing elementary, middle, and high schools in each school cluster for adequacy.

Consolidated Transportation Program (CTP): The transportation capital improvements program annually adopted and administered by the State of Maryland. For the purposes of conducting the Annual Growth Policy analysis, the CTP is considered “adopted” on the last day each year of the session of the Legislature, usually during the second week in April. In the event there is the possibility of a veto of the Legislature’s actions by the Governor, then the appropriate date of adoption should be the last day that the Governor has to exercise his veto. In the event that the Legislature adds or deletes projects during the legislative session from the annual CTP document published by the MDDOT, usually in January, then official correspondence from the MDDOT acknowledging the intended

changes to the CTP constitutes the official amendment. However, in order to use such changes in the Policy Area Review for the Staging Ceilings the correspondence needs to indicate that an added project would have 100 percent of its construction expenditures scheduled by the fifth fiscal year of that CTP. If appropriate, that correspondence can also be the basis of amending the Approved Roads Program.

De Minimis Development for Transportation: Small-scale development that generates up to five peak hour trips may receive subdivision approval without being subject to either Policy Area Transportation Review or Local Area Transportation Review.

De Minimis Development for Schools: The County has no *de minimis* provision for schools. This means that residential development projects of any size are subject to the school moratorium. An exception, however, is made for senior housing because it generates no students.

Development Pipeline: The total amount of approved-but-unbuilt development is called the pipeline of approved development. It is subtracted from the adopted staging ceilings to determine the Net Remaining Capacity. It consists of all building completions as of January 1 of the previous year and the unbuilt portion of the following:

- Preliminary plans approved by the Planning Board,
- WSSC sewer connections for residential projects,
- Public buildings at the issuance of building permit,
- Preliminary plans approved by Gaithersburg,
- Preliminary plans approved by Rockville,
- Record plats approved by the Town of Poolesville, and
- Building permits for "Loophole" properties

Freeways: Policy Area Transportation Review tests freeways on a countywide basis. The freeway standard is LOS D/E (0.90). The freeway network in Montgomery County consists of I-270 (including the spurs), I-370, I-495, and the Clara Barton and Cabin John Parkways.

Housing Units: Housing units may be single-family detached, single-family attached, garden apartments, and high rises. Each housing unit is counted as one unit for staging ceiling purposes.

Jobs: When the AGP counts "jobs," it is referring to the total estimated number of workers which can be accommodated in non-residential structures. It includes existing workers in addition to workers who could be accommodated in vacant or yet to be built structures. It does not include construction workers or self-employed people working out of residential areas. It is calculated by multiplying a building's gross square footage by a standard ratio of square feet per job. Job estimates for office buildings are derived from a 1989 study conducted by the Research Division of the Montgomery County Planning Department. Job ratios for the next five categories were derived from a 1984 survey conducted by the Research Division. The job estimates for research and development, church, mini-warehouse, and auto repair are staff decisions. Montgomery County Public Schools provided the job estimates for schools. When the Montgomery County Planning Board limits the number of jobs for a project as a condition of its approval, that job limit is used as the number of jobs that the project adds to the pipeline (see table next page).

Square Footage Per Employee Multipliers:

Office:	225	square feet per job in the Bethesda CBD, Bethesda/Chevy Chase, Grosvenor, Kensington/Wheaton, North Bethesda, Silver Spring CBD, and Silver Spring/Takoma Park, Twinbrook, Wheaton CBD, White Flint policy areas (down-county)
	250	square feet per job in all other areas of the County
Medical Offices:	400	square feet per job
Mixed Use Planned Development Zone:	350	square feet per job
Research & Development:	350	square feet per job
Retail:	400	square feet per job
Industrial/Warehouse:	450	square feet per job
Other: (hospital, hotel, daycare, etc.)	500	square feet per job
Church:	5	jobs
Mini-Warehouse:	1	job
Elementary School:	50	jobs
Middle School:	70	jobs
High School:	110	jobs
Auto Repair with no Sq. Ft. Available:	1	job per bay

Level of Service Standards: Whether or not a public facility is “adequate” depends on the experiences of users of that facility. Level of Service (often abbreviated LOS) is the term used in the AGP to describe the quality of that experience. Users with a very positive experience are said to enjoy a “high level of service.” The level of service standard is the breakpoint between adequate and inadequate levels of service.

Loophole Properties: Lots recorded prior to 1982 or in conformance with a preliminary plan approved prior to 1982 and recorded under the provisions of Bill 25-89 are called “Loophole Properties.” Up until July, 2001, less stringent transportation tests were required of Loophole Properties. The status of Loophole Properties already approved has not changed, but unapproved loophole properties must now pass the same adequate public facilities tests as any other subdivision.

Metro Station Policy Areas: One of the compact policy areas atop Metro stations. Creation of these policy areas enables the County to pursue a goal of encouraging development in areas well-served by existing transit facilities. For AGP purposes, development in “Metro station policy areas” is eligible for special approval procedures because the location of development near high-quality transit has less impact on the overall transportation network. The most notable of these provisions is the *Alternative Review Procedure for Metro Station Policy Areas*. Metro station policy areas are: Bethesda CBD, Friendship Heights, Glenmont, Grosvenor, Shady Grove, Silver Spring CBD, Twinbrook, White Flint, and Wheaton CBD.

Mode Share: Modes of travel include driving alone, carpooling, transit, bicycling and walking. A mode share is the percentage of residents or workers who use a particular mode of travel.

Moratorium (Subdivision): Areas where public facilities are inadequate to support additional subdivision approvals are said to be in subdivision moratorium. The Planning Board may not approve additional development in these areas except under certain circumstances. These include the ceiling flexibility provisions, the special ceiling allocation provisions, and the alternative review procedures of the AGP. De minimis development is also exempt from subdivision moratoria.

Net Remaining Capacity: The amount of development (expressed in terms of housing units or jobs) that can be approved by the Planning Board during the current fiscal year. When the pipeline is subtracted from the staging ceiling, what is left is the net remaining capacity.

Peak Hour Trips: The impact of a proposed development on the transportation network is expressed as the number of peak hour trips the development will generate. For Policy Area Transportation Review, this is the number of vehicle trips generated by the development during the busiest hour of the afternoon. Generally, this number is derived using standard trip generation rates for buildings based upon location, size, and type of use.

Policy Element: The AGP document that contains analyses of policy questions related to growth management and administration of the adequate public facilities ordinance. Prepared every other year (calendar years ending in an odd number), the staff draft policy element is made available in the spring, with Planning Board and County Executive review during the summer and County Council consideration in October.

Preliminary Plan: The stage in the development review process at which Local Area Transportation Review and Policy Area Transportation Review are applied to subdivisions.

Programmed Transportation Facility: A capital facility project which is contained within the adopted County Capital Improvements Program, the State Consolidated Transportation Program, or program of Rockville or Gaithersburg, such that 100 percent of the expenditures for construction or operation are estimated to occur within the first five years of the applicable program. Where such road project either crosses several policy areas or will be built over a period of time in identifiable segments, the appropriate sections will be identified by the Planning Board to: (1) locate the segments in the appropriate policy areas, and (2) specify whether the segments meet the basic criteria for a programmed facility.

Record Plat: A preliminary plan of subdivision which has been approved for recordation by the Montgomery County Planning Board or is already a recorded plat in the official Montgomery County land records.

Regional Transit Accessibility: measures how well the transit network connects jobs and houses. The more houses and jobs that can be accessed by transit in the least time, the better the regional transit accessibility value.

Policy Area: A geographic subarea of the County, delineated by the Planning Board, as adopted by the Council in the Annual Growth Policy for the purpose of staging analysis and the establishment of transportation staging ceiling capacities. (See Map 1.)

Queue: The list of development projects awaiting approval. Allocations of new development capacity are done on a first-come, first-served basis. After projects awaiting capacity are registered with the Planning Department, they are said to be "in the queue."

Rural Policy Area: One of the five policy areas where Policy Area Transportation Review does not apply. Development in these areas is constrained by zoning and Local Area Transportation Review. Rural policy areas are Darnestown/Travilah, Poolesville, Patuxent, Goshen and Rock Creek.

School Capacity: For Annual Growth Policy purposes, school capacity is measured as 100 percent of Council-funded regular program classroom capacity. This capacity measure does not count relocatable classrooms in computing a school's permanent capacity. Currently, the Council-funded regular program classroom capacity is a class size is as follows:

Grade	Effective Classroom Capacity
half day kindergarten	44
full day kindergarten	22
grades 1-6	25
secondary grade	22.5

School Enrollment Forecasts: MCPS projections are prepared in the fall of every year and are made for each of the upcoming six years and for two later years beyond the sixth year. The actual September enrollment at each school is used as the base on which the projections are developed and are used in the draft AGP school analysis tables.

MCPS uses the cohort survivorship model to forecast future enrollment. This method is used widely throughout the country and stands out as the most practical and consistently accurate forecasting approach. The cohort survivorship model, as applied by MCPS planners, involves the calculation of the number of students that can be expected in a particular grade at a future date, given the number of students now enrolled in the prior grade. Judgments are made about past trends and about migration, program changes, transfers in and out of the school service area, and other miscellaneous factors. Through the tracking of subdivision construction, student yields from subdivisions are applied to expected enrollment. Beyond the time of known subdivision and building activity, MCPS planners rely on forecasts prepared by the Montgomery County Planning Department and their demographic model of County population up to 20 years in the future.

One of the most difficult components of the enrollment forecast is predicting kindergarten enrollment. MCPS planners review records of resident births compiled by the Maryland Center for Health Statistics. Births in nearby jurisdictions to mothers who reside in Montgomery County are included in these records. Birth data is at both the Countywide level and the Census tract level. For the small geographic level of an elementary school service area, birth data is not available. Also adding to the difficulty in forecasting is the common occurrence of families moving after a child is born, but before the child enrolls in school.

Special Ceiling Allocation: A limited exception to Policy Area Transportation Review, the special ceiling allocation for affordable housing acts to curb possible negative impacts of the APFO on the supply of affordable housing. Under certain circumstances, projects which create a specified component of affordable housing may be approved in policy areas in subdivision moratorium. The AGP once contained a special ceiling allocation for health care facilities, but that provision was never used and was removed as part of 1995-1997 AGP Policy Element.

Staging Ceiling: A total amount of development expressed in terms of housing units and jobs that has been determined by the Montgomery County Council to be balanced appropriately, on the basis of an areawide average, with the existing and programmed transportation facilities for the area.

Staging Ceiling Flexibility: One option for applications which exceed policy area transportation staging ceilings is to mitigate the traffic impact of a project. Developer participation may be "Full-Cost" or "Development District" depending upon the type of development:

- **Full-Cost Developer Participation** permits the Planning Board to approve preliminary plans in moratorium areas when the applicant agrees to pay for the construction of public facilities. The public facilities project must add as much capacity to the transportation system as the proposed development will need. If the developer, for a period of 10 years, provides a traffic mitigation program, the program must reduce the number of peak hour, peak direction automobile trips by as many trips as would be generated by the proposed development.
- **Development District Participation** allows the Planning Board to approve one or more preliminary plans in moratorium areas when the applicants and the County agree to fund the needed public facilities through a development district.

Staging Ceiling Transferability: In Metro station policy areas, the Planning Board may approved the conversion of all or part of an approved non-residential subdivision to residential. In the Silver Spring CBD, developers can acquire the development capacity needed for their subdivision to be approved by purchasing it from an existing building (which is then demolished) or from another approved-but-unbuilt subdivision.

Total Transportation Level of Service: Also called TTLOS, this number reflects the levels of service on all auto and non-auto modes of travel in a policy area. It has four components: transit service, transit usage, auto usage, and auto congestion. The TTLOS standard (C-) is the same in every policy area. TTLOS is calculated so that areas with greater transit service and usage are permitted greater auto congestion and usage.

Traffic Zone: For traffic analysis purposes, the County is divided into approximately 300 traffic zones. Zone boundaries are selected so that traffic modelers can easily characterize the transportation usage and service in that zone. Policy areas are made up of one or more traffic zones.

Transportation Management Organization: TMOs are public or private non-profit organizations created to manage or coordinate programs that reduce the demand for road

capacity during the peak period, including alternative work hours programs, carpools, vanpools, subsidized transit passes, preferential parking, and peak period parking charges.

Notes on Policy Area Transportation Review

Policy Area Transportation Review (PATR) is the process used to determine the development supportable by the capacity of the transportation infrastructure, subject to other County goals and objectives.

The transportation system is a multifaceted structure composed of a number of different modes. Three modes are significant for local travel: automobile, bus and rail transit, and human-powered transport such as the pedestrian and bicyclist. In the TRAVEL/2 model system, the basic characteristics of each mode are identified in order to estimate their usage given a set of conditions. Travel demand characteristics are determined to a great deal by the availability and quality of transportation supply, while supply characteristics, though to a large extent fixed, are in part dependent upon demand.

Street and Highway Capacity

Network capacity is measured in vehicles per hour per lane. The better the geometric design of the facility, the higher the capacity. In the TRAVEL/2 model, the street and highway network is analyzed as consisting of two parts, the road segment and the intersection.

- **Road Segment Capacity** - the capacity of the road segment in the modeling analysis is defined as the number of vehicles per hour per lane that could be accommodated on a road segment if there were no intersections considering the geometrics of the facility and traffic characteristics. "Accommodated" is generally taken to be the number of vehicles per hour at which the travel time is twice what it is in uncongested conditions. This point is also called midpoint of Level of Service E. Volumes are not necessarily less than "capacity" however. After volumes exceed capacity, the travel time on a facility increases exponentially with traffic. Road segment travel time is estimated from uncongested travel time, traffic volume, and the capacity. Generalized road segment capacities are given below:

Road Type	Typical Traffic Stream Capacities
1. Freeway	1800 - 2100 vehicles/hour/lane
2. Major Highway	1400 - 1800 vehicles/hour/lane
3. Arterial/Business/Industrial	1100 - 1500 vehicles/hour/lane
4. Residential Primary	800 - 1200 vehicles/hour/lane

- **Intersection Capacity** - In TRAVEL/2, intersection capacity is analyzed using the Critical Lane Volume technique and then by allocating traffic signal green time in proportion to volume per lane on the intersection legs. Stopped delay at the intersection is estimated for each turning movement using approach volume, intersection critical lane