VIII. Policy Area Mobility Review

A. Background

There are two components to PAMR—Relative Arterial Mobility and Relative Transit Mobility for each policy area.

Relative Arterial Mobility measures congestion on the County's arterial roadway network. It is based on the urban street delay level of service in the 2000 *Highway Capacity Manual*, published by the TRB. Congestion is measured by comparing modeled (congested) speeds to free-flow speeds on arterial roadways and then assigning letter grades to the various levels of roadway congestion. A indicates the best level of service and F indicates the worst levels. For a trip along an urban street that has a free-flow speed (generally akin to posted speed) of 40 mph, LOS A conditions exist when the actual travel speed is at least 34 mph, including delays experienced at traffic signals. At the other end of the spectrum, LOS F conditions exist when the actual travel speed is below 10 mph.

Table 8
Relative Arterial Mobility and Arterial LOS

If the actual urban street travel speed is	PAMR Arterial LOS is
At least 85% of the free-flow speed	A
At least 70% of the highway speed	B
At least 55% of the highway speed	C
At least 40% of the highway speed	D
At least 25% of the highway speed	E
Less than 25% of the highway speed	F

Any policy area with an actual urban street travel speed equal to or less than 40 percent of the highway speed must be considered acceptable only with full mitigation for transportation.

The PAMR evaluates conditions only on the arterial roadway network. Freeway level of service is not directly measured because County development contributes a relatively modest proportion of freeway trips and because the County has limited influence over the design and operations of the freeway system. However, because arterial travel substitutes for some freeway travel, PAMR indirectly measures freeway congestion to the extent that travelers choose local roadways over congested freeways.

Relative Transit Mobility is based on the Transit/Auto Travel Time level of service concept in the 1999 *Transit Capacity and Quality of Service Manual* published by the TRB. It is defined as the relative speed by which journey to work trips can be made by transit as opposed to by auto. This concept assigns letter grades to various levels of transit service, so that LOS A conditions exist when a trip can be made more quickly by transit (including walk-access/drive-access and wait times) than by single-occupant auto. An LOS A condition exists in the Washington region for

certain rail transit trips with short walk times at both ends of the trip and some bus trips in HOV corridors. LOS F conditions exist when a trip takes more than an hour longer to make by transit than by single-occupant auto.

This ratio between auto and transit travel times can also be expressed in an inverse relationship, defined by modal speed. If a trip can be made in less time by transit than by auto, the effective transit speed is greater than the effective auto speed. Based on the typical roadway network speed during the morning peak period, the Planning Board established the following relationship between auto and transit trips:

Table 9
Relative Transit Mobility and Transit LOS

If the effective transit speed is	PAMR Transit LOS is
100% or more (e.g., faster) than the highway speed	A
At least 75% of the highway speed	B
At least 60% of the highway speed	C
At least 50% of the highway speed	D
At least 42.5% of the highway speed	E
Less than 42.5% of the highway speed	F

Any policy area with an effective transit speed equal to or less than 42.5 percent of the highway speed must be considered acceptable only with full mitigation for transportation.

The PAMR Arterial LOS and the PAMR Transit LOS standards are inversely related, reflecting the County's long-standing policy to encourage concentrations of development near high-quality transit. To accomplish this policy, greater levels of roadway congestion should be tolerated in areas where high-quality transit options are available with the equivalencies in Table 10.

Table 10
Equivalency Between Transit LOS and Arterial LOS

If the forecasted PAMR Transit LOS is:	The minimum acceptable PAMR Arterial LOS standard is:
A	D*
B	D*
C	D
D	C
E	B
F	A

* This chart reflects the County Council's policy decision that the PAMR arterial LOS standard should not fall below D, even when the PAMR Transit LOS standard is A or B.

Using a transportation planning model, the staff has computed the relationship between a programmed set of transportation facilities and the geographic pattern of existing and approved jobs and housing units. The traffic model tests this future land use pattern for its traffic impact, comparing the resulting traffic volume and distribution to the arterial level of service standard for each policy area.

This analysis results in a finding of Acceptable with Full Mitigation for a policy area if:

- the level of service on local roads in the policy area is expected to exceed the arterial level of service standard, or
- the magnitude of the hypothetical future land use patterns in that policy area will cause the level of service on local roads in any other policy area to exceed the arterial level of service standard for that policy area.

If this annual analysis results in a finding of Acceptable with Full Mitigation for a policy area for a fiscal year, the Planning Board must not approve any more subdivisions in that policy area in that fiscal year, except as allowed under the current Growth Policy. For FY10, the Planning Board must consider the Fairland/White Oak, Germantown East, Gaithersburg City, and North Potomac Policy Areas to be Acceptable with Full Mitigation for transportation.

When this annual analysis results in a finding of Acceptable with Partial Mitigation for a policy area for a fiscal year, the Planning Board must not approve any more subdivisions in that policy area in that fiscal year except as allowed under the current Growth Policy. For FY10, the Planning Board will consider certain policy areas to be Acceptable with Partial Mitigation for transportation at the policy area level. The full listing of policy areas for which either full or partial mitigation is required in FY10 are listed in Table 11.

Table 11
Trip Mitigation Required by Policy Area - 2013 PAMR Results (effective July 1, 2009)

Policy Area	Trip Mitigation Required
Aspen Hill	20%
Bethesda/Chevy Chase*	30%
Clarksburg	10%
Derwood/Shady Grove *	20%
Fairland/White Oak	100%
Gaithersburg City	100%
Germantown East	100%
Kensington/Wheaton*	10%
Montgomery Village/Airpark	5%
North Bethesda *	35%
North Potomac	100%
Olney	10%
Potomac	40%
R&D Village	40%
Rockville	25%
Silver Spring/Takoma Park*	10%

The trip mitigation also applies to the MSPAs as indicated with an asterisk in the table above and itemized below:

- The Bethesda/Chevy Chase Policy Area includes the Bethesda CBD and Friendship Heights CBD Policy Areas
- The Derwood Policy Area includes the Shady Grove Policy Area
- The Kensington/Wheaton Policy Area includes the Glenmont and Wheaton CBD Policy Areas
- The North Bethesda Policy Area includes the Grosvenor, Twinbrook, and White Flint Policy Areas
- The Silver Spring/Takoma Park Policy Area includes the Silver Spring CBD Policy Area.

An applicant for a preliminary plan of subdivision need not take any mitigating action under PAMR if the Planning Board finds that the proposed development will generate three or fewer peak hour trips. For retail uses, mitigation applies to primary trips, but not pass-by or diverted trips.

The Planning Board, after considering recommendations of the County Executive, may approve a preliminary plan application in a policy area found by PAMR to be Acceptable with Full Mitigation or Acceptable with Partial Mitigation, as provided in this section. In approving plans in Acceptable with Full Mitigation policy areas, the Board should ensure that the average level of service for the relevant policy area is not adversely affected. Except as otherwise expressly stated in the Development District Participation section of the Growth Policy, the same level of service criteria must be used in evaluating an application under this section.

B. PAMR Trip Reduction/Mitigation

The following options to mitigate the traffic impacts of development approved in a preliminary plan may be used, individually or in combination:

Trip Mitigation

An applicant may sign a binding Traffic Mitigation Agreement (TMAg) under which up to 100 percent of the projected peak hour vehicle trips would be removed from the roadway by using Transportation Demand Management techniques to reduce trips generated by the applicant's development or by other sites, so that an applicant could still generate a certain number of trips if the mitigation program removes an equal number of trips from other sites in the same policy area. Note that traffic mitigation (TMAgs) apply to both LATR and PAMR.

Trip Reduction by Providing Non-Auto Facilities

An applicant may mitigate roadway congestion impacts to a limited extent by providing non-auto transportation facilities that will enhance pedestrian safety or increase the attractiveness of alternative modes of travel. The allowable facilities and their corresponding vehicle trip credits are shown in Table 5. These facilities can be provided in exchange for vehicle trip credits; both the credit value and maximum potential trip reduction credit (from 60 to 120 peak hour vehicle trips) will depend on the congestion standard for the policy area.

An applicant may mitigate a limited number of trips by providing non-auto facilities that will make alternative modes of transit, walking, and bicycling safer and more attractive. The allowable actions and number of trips associated with them, as well as the maximum number of trip credits allowable with these actions, which will depend in part on the congestion standards for the policy area they are applied to, will be adopted by the Planning Board in these Guidelines.

Adding Roadway Capacity

An applicant may mitigate trips by building link-based roadway network capacity. The conversion rate between vehicle trips and lane miles of roadway is shown in Table 12. The values in that table are derived from regional estimates of vehicle trip length by trip purposes and uniform per-lane capacities for roadway functional classes that should be applied county wide. Several conditions apply:

- The number of lane miles in Table 12 reflects total capacity provided, so that if an applicant widens a roadway by one lane in each direction, the total minimum project length would be half the length listed in the table.
- The roadway construction or widening must have logical termini, for instance connecting two intersections.
- The roadway construction must occur in the same policy area as the proposed development.
- The roadway construction must be recommended in a master plan.

Adding Transit Capacity

An applicant may mitigate inadequate PAMR conditions by buying 40-foot long hybrid electric fleet vehicles for the Ride On system, and guaranteeing 12 years of operations funding, at the rate of 30 peak hour vehicle-trips per fleet vehicle. To qualify as mitigation, any bus must be an addition to the size of the Ride On fleet and not a replacement for a bus taken out of service.

Payment instead of construction

The Planning Board may accept payment to the County of a fee commensurate with the cost of a required improvement if the applicant has made a good faith effort to implement an acceptable improvement, and the Board finds that a desirable improvement cannot feasibly be implemented by the applicant but the same improvement or an acceptable alternative can be implemented by a public agency within four years after the subdivision is approved.

For development applications that require PAMR mitigation of fewer than 30 peak hour vehicle trips, the Planning Board may accept payment to the County in lieu of identification or construction of any specific improvement. For FY09, the payment is established at $11,000 per new peak hour vehicle trip and will escalate according to construction costs for each new fiscal year in which a new value is not established.

In general, each mitigation measure or combination of measures must be scheduled for completion or otherwise be operational at the same time or before the proposed development is scheduled to be completed, and prior to use and occupancy permits being released. The nature, design, and scale of any additional facility or program must receive prior approval from any government agency that would construct or maintain the facility or program, and the applicant and the public agency must execute an appropriate public works agreement before the Board approves a record plat. The application must also be approved under LATR.

Both the subdivision plan and all necessary mitigation measures must be consistent with an adopted master plan or other relevant land use policy statement. For the Planning Board to accept a roadway capacity improvement as a mitigation measure, the applicant must show that alternative non-auto mitigation measures are not feasible or desirable. In evaluating mitigation

measures proposed by an applicant, the Board must place a high priority on design excellence to create a safe, comfortable, and attractive public realm for all users, with particular focus on high-quality pedestrian and transit access to schools, libraries, recreation centers, and other neighborhood facilities.

Table 12
PAMR Mitigation Options for Providing Roadway Capacity
(Minimum length of roadway construction in lane miles of widening or new construction per 100 vehicle trips generated)

	Facility Type			
Land Use Type	**Freeway**	**Major Highway**	**Arterial**	**Primary Residential**
Office	0.38	0.51	0.77	1.54
Retail	0.24	0.31	0.47	0.94
Other Commercial	0.31	0.41	0.62	1.23
Residential	0.31	0.41	0.62	1.24