



July 15, 2005


MEMORANDUM

TO: Montgomery County Planning Board

VIA: Eric S. Graye, Supervisor 
Transportation Planning

Richard C. Hawthorne, Chief 
Transportation Planning

Jeffrey L. Zyontz, Chief
Countywide Planning Division

FROM: Richard I. Roisman, 301-495-4547 for the Park and Planning Department 

SUBJECT: 2005-2007 Annual Growth Policy, Staff Draft Policy Element
Chapter 3: Highway Mobility

RECOMMENDATION: Transmit report to the County Council. In the transmittal letter, express support for changing the Annual Growth Policy (AGP) requirement to report information on highway congestion as part of the growth policy activities occurring every other year instead of every year.

The staff draft of the 2005-2007 AGP was released on the Department's website on June 15, 2005, at the following address: <http://www.mc-mncppc.org/development/agp/agphome.shtm>. Hard color copies are attached to this memo for the Board only. Staff will correct any errors in the report, and make other changes as directed by the Board in preparation for transmittal to Council.

SUMMARY OF FINDINGS

- The congestion trends that were shown in the 2004 Annual Development Approval and Congestion (ADAC) report have been confirmed with 2005 data. In general, the overall location, extent, and duration of congestion in the County have not significantly changed over the past year.

- At many of the most congested locations, the County and State are actively making improvements to provide congestion relief.
- Staff believes the areas of greatest concern in the County where more resources are needed to develop and implement congestion relief solutions on a timely basis are:
 - Clarksburg
 - Rockville Pike/Hungerford Drive/Frederick Road (MD 355)
 - Between the Bethesda Central Business District(CBD) and the Beltway
 - From Randolph Road to Shady Grove Road
 - R&D Village and adjacent sections of southwest Gaithersburg
 - Key East-West Corridors
 - Norbeck Road (MD 28)
 - Randolph Road
 - River Road (MD 190) from Seven Locks Road to Goldsboro Road (MD 614)
- Far more resources are needed to provide travel time data useful for full analytical purposes: the current resources are sufficient to provide a snapshot of congestion in the County.

BACKGROUND

This chapter of the AGP replaces the ADAC report, which was a requirement written into the County Council resolution approving the 2003-2005 AGP. Based upon feedback from the 2004 ADAC report, information on measuring highway mobility in the county was streamlined and incorporated into a single chapter included in the AGP. Two key transportation performance measures are considered: critical lane volumes (CLVs) at signalized intersections, and arterial travel times and travel speeds. Information on development approvals appears in a separate appendix to the AGP. **The information on congestion contained in this chapter has informed the staff recommendations on the transportation elements of the County's Capital Improvement Program (CIP), which the Board is reviewing today, and will inform the staff recommendations on the State's Consolidated Transportation Program (CTP), which the Board will review in the fall.**

DISCUSSION

The results of the analysis reveal good news, bad news, and mixed news regarding the state of congestion on the County's arterial highway network. The good news is that congestion is being addressed in those locations where recent transportation improvements have been made. The bad news, though, is that in general, arterial mobility as measured by CLVs, speeds, and travel times is decreasing in the county. When improvements are implemented, the data shows either an improvement in travel conditions or a slower rate of worsening conditions. The mixed news is that not enough data has been collected to correlate the good news and the bad news. In other words, continued monitoring is needed to assess data variability and determine how the benefits of recently implemented improvements can continue to be demonstrated as traffic

volumes increase over time. How long the benefits last is generally a function of the levels of nearby development and the desirability of the improvements in relation to other alternate routes.

DATA ISSUES

The question of data variability and reliability in transportation performance measurement surrounds the activities associated with the AGP. The best way to overcome variability and reliability issues is to actually increase the scope of data collection in order to analyze daily patterns of travel conditions. Staff has been coordinating with the Maryland State Highway Administration (SHA) and the Montgomery County Department of Public Works and Transportation (DPWT) on a Memorandum of Understanding where all three agencies agree to adhere to the SHA standard for turning movement counts, a 13-hour count (6:00am to 7:00pm) in 15-minute increments. However, this agreement will not cover counts submitted by developers as part of traffic impact studies to satisfy Local Area Transportation Review (LATR) requirements. If the agreement brings count standardization among agencies, staff will bring recommendations to the Board to address LATR counts.

For travel time and travel speed data, there are two keys to overcoming variability and reliability issues: increasing the number of observations in a given corridor, and spacing out samples over a longer period of time, such as sampling every two years instead of on an annual basis. Spacing out collection periods over two years minimizes the possibility that the observed change over time is simply normal variability of traffic conditions, the “noise” that is expected in an area as dynamic as Montgomery County. The Metropolitan Washington Council of Governments collects their travel time and travel speed data for different corridors around the region on a three-year cycle.

Advances in data collection methods and technology may be able to overcome some of the data variability and reliability concerns. The potential 24/7/365 availability of data from electronic archives like those maintained by the University of Maryland Center for Advanced Transportation Technology for SHA’s Coordinated Highways Response Action Team system and coming on-line for the DPWT Traffic Management Center allows a much more detailed investigation of variability in arterial traffic volumes and freeway travel speeds and travel times; in fact, some of this data was shown in the 2004 ADAC Report.

However, neither field device electronic monitoring of travel times and travel speeds along the County’s arterial network nor intersection turning movement counts are available through these sources or any other type of source, save the data collection methods used in the AGP at this time – turning movement counts require sending people into the field to count the intersection, and travel time and travel speed data requires sending people into the field to drive the study corridors. Taking the data analysis of the County transportation network to a higher level of significance and conclusiveness is more expensive in terms of staff and outside resources, but may be necessary in the future to respond to decision-makers.

TWO-YEAR REPORTING CYCLE

Staff is recommending changing the AGP to report on highway mobility during odd-numbered years, rather than every year. This change will improve the level of data analysis and make the congestion monitoring process more efficient. Not only will moving the highway mobility report to odd-numbered years allow it to conform to the regular cycle of other AGP activities, but it will also link it to the update schedule of the CIP, which also occurs only in odd-numbered years. The Department continuously updates its database of intersection turning movement counts as counts come in from traffic studies and supplements the system with data from SHA and DPWT. Once the highway mobility report moves to odd-numbered years, travel time and speed data collection could follow that pattern, or two to three key corridors could be sampled again during even-numbered years to increase the overall number of observations.

TRANSPORTATION PROJECTS THAT RESPOND TO AREAS OF GREATEST CONCERN

There are many transportation improvements in *active* stages of planning that directly address the areas of greatest concern noted in the beginning of this memo. These projects are noted with their respective areas below. Staff has not provided an exhaustive list of all master-planned improvements located in the areas of greatest concern. While all such projects would provide congestion relief, providing a laundry list of projects adds little value, as the Board cannot advocate for all projects simultaneously given the limited fiscal resources available for transportation improvements.

Moreover, most of the projects, and in fact most of the problem areas noted in the staff analysis in the AGP are located on State-owned roads simply because most travel in the county occurs on the State network, which includes most of the arterials and major highways. This limits the Board's and the Council's ability to pursue major transportation improvements at these locations at this time through the County CIP as most improvements to the State network are funded through the State CTP. The problem areas identified in the AGP will be revisited when staff brings CTP recommendations to the Board in the fall.

In some cases, the best, and most viable improvement at this time may be an improvement that is incremental to what is proposed in the master plan, e.g., continued at-grade intersection improvements even though ultimately the master plan may recommend a grade-separated interchange. Recommendations for new projects, i.e., projects that conform to area master plans but are not currently under active study, are contained in the staff memo on CIP recommendations and will be considered for the CTP in the fall.

Clarksburg – most of the master-planned roads and intersection improvements for Clarksburg are funded by developers rather than through the CIP or CTP, such as Snowden Farm Parkway (A-305), and these projects need to be implemented as quickly as possible to bring congestion relief to the area. However, there are several active DPWT projects that will also bring congestion relief to the area when implemented, including:

- Observation Drive (in County Phase I Facility Planning)
- Stringtown Road Extended (County project scheduled to begin construction this fall)
- Midcounty Highway (M-83) from Ridge Road (MD 27) to Montgomery Village Avenue (in County Phase I Facility Planning)

Staff's recommended additions to the upcoming CIP, which the Board is also reviewing today, include two Clarksburg projects: Stringtown Road east of Frederick Road (MD 355), and Newcut Road from Ridge Road (MD 27) to Comsat Drive.

Rockville Pike (MD 355) between the Bethesda CBD and the Beltway – There are currently no active studies in this area.

Rockville Pike/Hungerford Drive/Frederick Road (MD 355) from Randolph Road to Shady Grove Road – active improvements that will benefit this corridor include:

- Montrose Parkway West (County project scheduled to begin construction this fall)
- Grade-separated interchange at Rockville Pike/Montrose Road/Randolph Road/Montrose Parkway (currently under design by the State and funded for construction)
- Grade-separation of Montrose Parkway and Randolph Road over the CSX/MARC railroad tracks (currently under design by the State)
- Intersection improvements in the Rockville Town Center (currently under study by the State and considering both at-grade and grade-separated improvements).
- Nebel Street Extended (currently in final design by the County)
- Citadel Avenue (currently in final design by the County)
- Chapman Avenue [Council Transportation and Environment Committee (T&E) has recommended that this project proceed to Phase II Facility Planning]
- Rockville Pike (MD 355) at Twinbrook Parkway intersection improvement (County project to add protected right turn lane from northbound Rockville Pike to eastbound Twinbrook Parkway, construction to begin shortly)

R&D Village and adjacent areas of southwest Gaithersburg – Active improvements that will benefit this area include:

- Shady Grove Road / Darnestown Road quadrant connector road

Norbeck Road (MD 28) – active improvements that will benefit this corridor include:

- Intercounty Connector (currently undergoing final environmental review, Corridor 1 designated as Locally Preferred Alternative by Gov. Ehrlich on 7/11/05)
- Grade-separated interchange at Georgia Avenue (MD 97) (currently under design by the State)
- Widening of Norbeck Road and Spencerville Road (MD 198) east of Georgia Avenue (currently under study by the State).

Randolph Road – active improvements that will benefit this corridor include:

- Montrose Parkway East (in County Phase II Facility Planning)
- Grade-separated interchange at Georgia Avenue (currently under design by the State)

River Road (MD 190) from Seven Locks Road to Goldsboro Road (MD 614) – River Road was not noted as an area of greatest concern in the AGP staff draft, but was highlighted in the survey of congested areas in the report. Further consideration by staff, and the receipt of updated data from SHA showing that the intersections at Goldsboro Road and at Wilson Lane (MD 188) continue to experience CLVs over the LATR standard have caused staff to elevate this area to one of greatest concern. SHA is currently studying improvements at these two intersections.

In addition to the areas of greatest concern, staff's CIP recommendations have also targeted several of the most congested intersections in the County for possible improvements. The Board will receive a briefing on the CIP recommendations immediately following the review of the AGP.

RR:gw
Attachment

mmo to mcpb re agp 2005-2007