



## Subdivision Staging Policy – Transportation Policy Area Review (TPAR) Update

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### Description

Each even-numbered year, the Subdivision Staging Policy (SSP) requires an update evaluation of Transportation Policy Area Review (TPAR) roadway and transit adequacy for each policy area. The results derived from this evaluation are used to determine the applicable TPAR payment requirements for new development in the County. The TPAR payment requirements currently in place were established as an element of the 2012-2016 SSP adopted by the County Council on November 13, 2012 (Council Resolution No. 17-601). These requirements were intended to be in effect during period January 1, 2013 – July 1, 2014. However, staff was unable to perform the analysis required to update the TPAR payment requirements in a timely manner this past summer. The delay was largely a result of the unanticipated level of staff resources and time required to be directed to support the Council's review of the White Oak Science Gateway Master Plan this past year. The updated TPAR adequacy evaluation has been recently completed by staff. The results of this effort are reported below. If adopted, these results would remain in effect through June 30, 2016.

**Staff Recommendation:** Adopt the recommended TPAR adequacy results

### Summary

#### TPAR Roadway Adequacy

Using the Department's regional transportation model, staff has computed the relationship between two key components:

- (1) the programmed set of transportation facilities funded for completion within 10 years in the County Capital Improvement Program (CIP), the State Consolidated Transportation Program, City of Rockville CIP and City of Gaithersburg CIP for which construction is funded to begin within 6 years and
- (2) a year 2024 estimate of the Round 8.3 Cooperative Regional Forecast.

The regional transportation model evaluates the traffic impact of this forecast growth, comparing the resulting directional traffic volume, link speed and distribution to roadway level of service for each policy area. Roadway adequacy is a measure of traffic congestion on the County’s arterial roadway network. This measure is based on the urban street delay level of service specified in the *2010 Highway Capacity Manual*, published by the Transportation Research Board. This concept measures traffic congestion by comparing modeled (i.e., congested) speeds to free-flow speeds on arterial roadways as summarized in the following table.

**Roadway Travel Speed and Arterial Level of Service (LOS)**

| <b><i>If the urban street travel speed is</i></b> | <b><i>TPAR Arterial LOS is</i></b> |
|---|------------------------------------|
| At least 85% of the free-flow speed               | A                                  |
| At least 70% of the free-flow speed               | B                                  |
| At least 50% of the free-flow speed               | C                                  |
| At least 40% of the free-flow speed               | D                                  |
| At least 30% of the free-flow speed               | E                                  |
| Less than 30% of the free-flow speed              | F                                  |

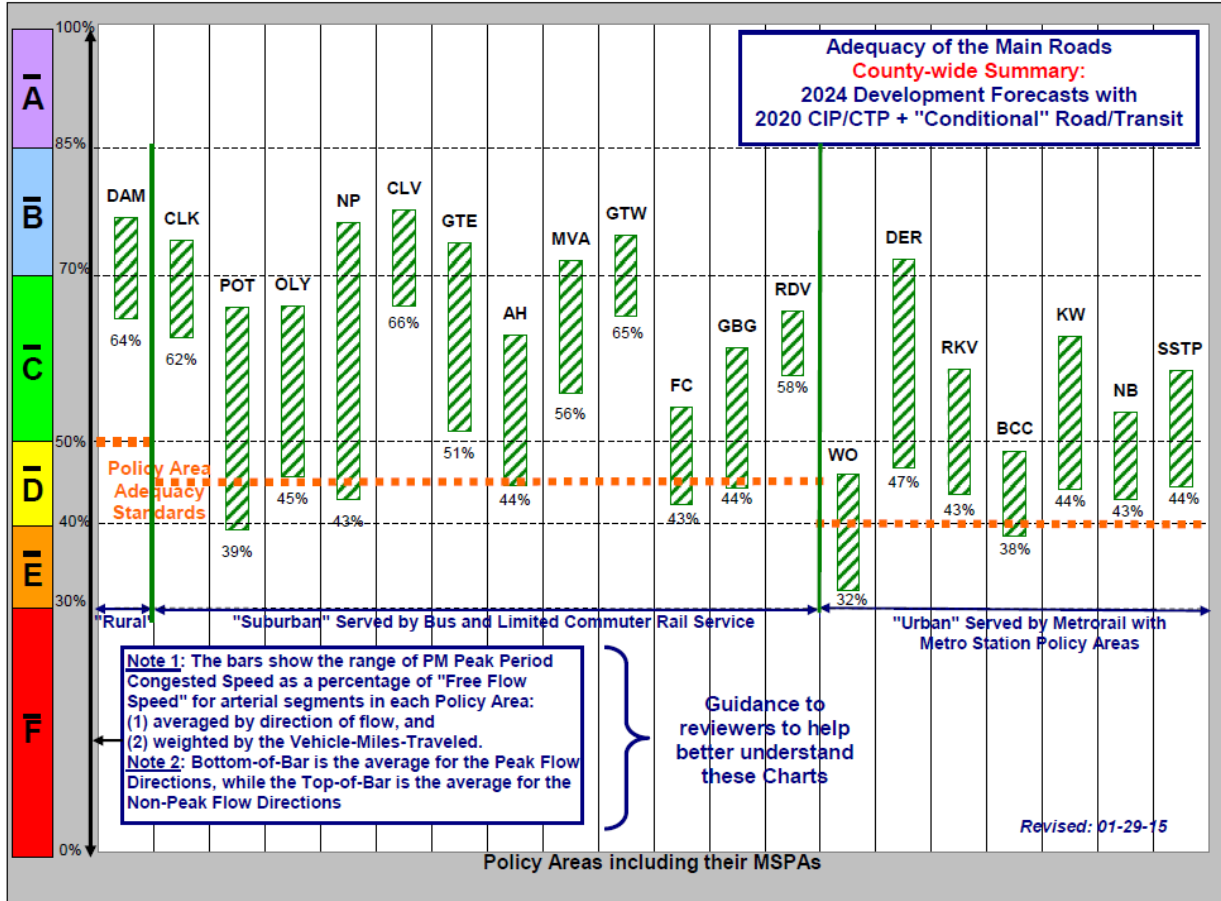
The following standards have been established to assess the level of roadway adequacy for Transportation Policy Area Review:

**Standards of Acceptable Roadway Average Level of Service (LOS)**

| <b><i>Policy Area Categories</i></b> | <b><i>Acceptable Weighted Arterial LOS</i></b>         |
|--------------------------------------|--|
| Urban                                | Boarderline between LOS “D” and “E” in peak directions |
| Suburban                             | Mid-LOS “D” in peak directions                         |

Any policy area that does not achieve the applicable level of service standard is inadequate for roadways. The results of the updated TPAR roadway adequacy analysis described above are summarized in the chart below.

## YEAR 2024 TPAR CHART



The resultant directional arterial travel speed for each policy area is depicted by the green vertical bars shown in the chart. The bottom of each bar depicts the average policy area arterial travel speed in the peak direction. The top of each bar depicts the average policy area arterial travel speed in the off-peak direction. The policy area category level of service standard is depicted by the orange horizontal dashed lines shown on the chart. Policy area roadway adequacy is determined by where the bottom of the bar falls relative to the applicable policy area level of service standard. Based on this analysis the following six (6) policy areas are inadequate for roadways:

- North Potomac
- Aspen Hill
- Fairland/Colesville
- White Oak
- Gaithersburg City
- Bethesda Chevy Chase

## TPAR Transit Adequacy

Transit adequacy is based on the evaluation of measures of three transit service performance factors for combined Ride-On and Metrobus service using the arterial roadway network in the County. It is based on and consistent with the performance factors defined in the 2003 *Transit Capacity and Quality of Service Manual* published by the Transportation Research Board. The three transit service performance factors are: (1) coverage, which indicates how close service is to potential users; (2) peak headway, which indicates how frequent the scheduled service is so as to be convenient to users; and (3) span of service, which indicates over what time duration during a typical weekday the service is available to potential users. Transit Adequacy is determined by comparing bus route coverage, scheduled headways and actual hours of operation based on service information at the beginning of 2014 to established standards, as illustrated in the table below. If a policy area does not achieve adequacy for all three measures, that policy area is determined to inadequate for transit.

| <b>Transit Adequacy Standards</b> |                         |                        |                     |
|-----------------------------------|-------------------------|------------------------|---------------------|
|                                   | <b>Minimum Coverage</b> | <b>Maximum Headway</b> | <b>Minimum Span</b> |
| Urban                             | ≥80%                    | ≤14 minutes            | ≥17 hours           |
| Suburban                          | ≥70%                    | ≤20 minutes            | ≥14 hours           |

Based on the results of the updated TPAR test described above, the following table shows the roadway and transit adequacy status for each policy area from July 1, 2014 - June 30, 2016. Text highlighted in bold denotes a change in adequacy status relative to the results of the 2012 TPAR test. For reference, a map depicting the policy areas listed in this table is provided below.

## Transportation Mitigation Payment

If projected transportation capacity in a policy area is not adequate, the Planning Board may approve a subdivision in that area if the applicant commits to either: (1) fully mitigate the incremental traffic impact of the subdivision by adding capacity or implementing a trip reduction program; or (2) pay a Transportation Mitigation Payment as provided in County law.

If an MSPA is located in an Urban area that does not meet the Roadway Test standard, the Transportation Mitigation Payment is equal to 25% of the MSPA transportation impact tax for that subdivision. If any other policy area does not meet either the Roadway Test or Transit Test standard, the Transportation Mitigation Payment is equal to 25% of the General District transportation impact tax for that subdivision. If any other policy area that is not otherwise exempt does not meet both the Roadway Test and Transit Test standards, the Transportation Mitigation Payment is equal to 50% of the General District transportation impact tax for that subdivision.

**Results of TPAR Test, July 1, 2014 – June 30, 2016**

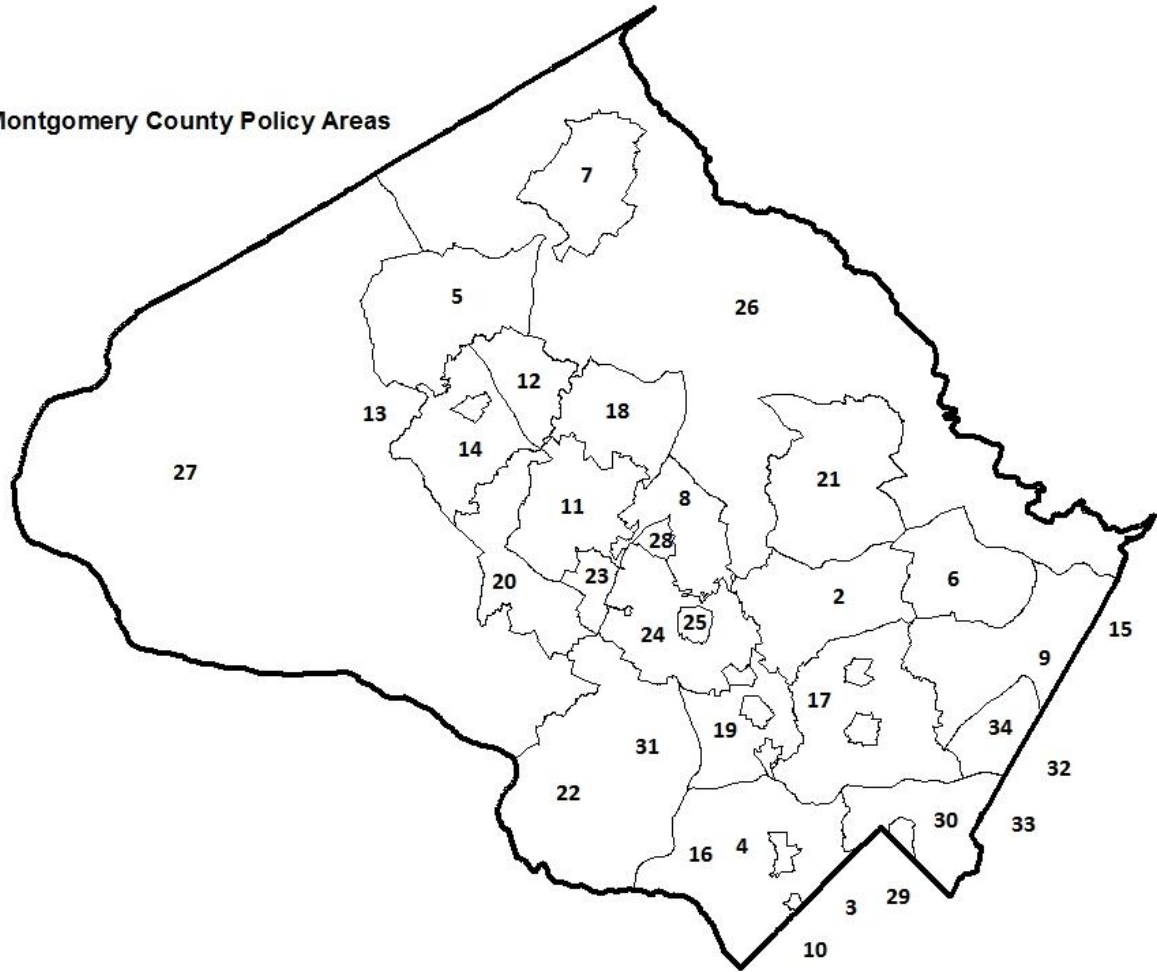
| <b>Policy Area</b>         | <b>Adequacy Status</b>  |
|----------------------------|---|
| Aspen Hill                 | <b>Inadequate under Roadway Test;</b> Adequate under Transit Test |
| Bethesda CBD               | Adequate under Roadway Test; exempt from Transit Test             |
| Bethesda-Chevy Chase       | <b>Inadequate under Roadway and Transit Tests</b>                 |
| Clarksburg                 | Inadequate under Transit Test                                     |
| Cloverly                   | Inadequate under Transit Test                                     |
| Damascus                   | Adequate under Roadway and Transit Tests                          |
| Derwood                    | Inadequate under Transit Test                                     |
| Fairland/Colesville        | <b>Inadequate under Roadway and Transit Tests</b>                 |
| Friendship Heights         | Adequate under Roadway Test; exempt from Transit Test             |
| Gaithersburg City*         | Inadequate under Roadway Test                                     |
| Germantown East            | Inadequate under Transit Test                                     |
| Germantown Town Center     | Inadequate under Transit Test                                     |
| Germantown West            | Inadequate under Transit Test                                     |
| Glenmont                   | Adequate under Roadway Test; exempt from Transit Test             |
| Grosvenor                  | Adequate under Roadway Test; exempt from Transit Test             |
| Kensington/Wheaton         | Inadequate under Transit Test                                     |
| Montgomery Village/Airpark | Inadequate under Transit Test                                     |
| North Bethesda             | Inadequate under Transit Test                                     |
| North Potomac              | <b>Inadequate under Roadway and Transit Tests</b>                 |
| Olney                      | Inadequate under Transit Test                                     |
| Potomac**                  | Inadequate under Transit Test                                     |
| R&D Village                | Inadequate under Transit Test                                     |
| Rockville City*            | Inadequate under Transit Test                                     |
| Shady Grove                | Adequate under Roadway Test; exempt from Transit Test             |
| Silver Spring CBD          | Adequate under Roadway Test; exempt from Transit Test             |
| Silver Spring/Takoma Park  | Inadequate under Transit Test                                     |
| Twinbrook                  | Adequate under Roadway Test; exempt from Transit Test             |
| Wheaton CBD                | Adequate under Roadway Test; exempt from Transit Test             |
| White Oak                  | <b>Inadequate under Roadway and Transit Tests</b>                 |

\* Applies to any development that would be located in the policy area but not in the City.

\*\* Under applicable master plans, the Potomac policy area is exempt from the TPAR Roadway Test.

The White Flint MSPA and the Rural East and West policy areas are exempt from both the TPAR Roadway and Transit Tests.

Montgomery County Policy Areas



- 2. Aspen Hill
- 3. Bethesda CBD\*
- 4. Bethesda/Chevy Chase
- 5. Clarksburg
- 6. Cloverly
- 7. Damascus
- 8. Derwood
- 9. Fairland/White Oak
- 10. Friendship Heights
- 11. Gaithersburg City
- 12. Germantown East
- 13. Germantown Town Center
- 14. Germantown West
- 15. Glenmont\*
- 16. Grosvenor\*
- 17. Kensington/Wheaton

- 18. Montgomery Village
- 19. North Bethesda
- 20. North Potomac
- 21. Olney
- 22. Potomac
- 23. R&D Village
- 24. Rockville City
- 25. Rockville Town Center\*
- 26. Rural East
- 27. Rural West
- 28. Shady Grove\*
- 29. Silver Spring CBD\*
- 30. Silver Spring/Takoma
- 31. Twinbrook\*
- 32. Wheaton\*
- 33. White Flint\*
- 34. White Oak

\*Metro Station Policy Area