Subdivision Staging Policy Update

Briefing on Staff Recommendations

May 28, 2020
CHAPTER 5. TRANSPORATION ELEMENT RECOMMENDATIONS

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Chapter 5. Transportation Recommendations

Vision Zero Resources
Design roads immediately adjacent to new development to account for all identified recommendations from applicable planning documents including Functional Plans, Master Plans and Area Plans.

- Adopted - Bicycle Master Plan
- Completed – High Injury Network, Bicycle Level of Traffic Stress Map
- Transportation consultants shall check the accuracy of the bicycle and pedestrian network attributes in the county’s database relative to the observed existing conditions.
- Transportation consultants should identify any inaccurate network attributes and any attributes to be updated in accordance with the development “as built” plans and report this information to Montgomery Planning to update the county’s databases accordingly.
Chapter 5. Transportation Recommendations

Mitigation Prioritization
Prioritize the application of modal mitigation approaches as follows when projected traffic generated from proposed projects exceeds the applicable policy area congestion standard:

- crash mitigation strategies to achieve Vision Zero, such as those identified in the Vision Zero Toolkit
- transportation demand management (TDM) approaches to reduce vehicular demand
- pedestrian or bicycle improvements beyond the development site frontage including those identified in the Pedestrian Master Plan and Bicycle Master Plan
- transit facility or service improvements
- intersection operational improvements
- roadway capacity improvements

Prioritize mitigation strategies designed to improve travel safety.
Chapter 5. Transportation Recommendations

Development Review Committee
Development Review Committee

R5.3

Given the additional focus on Vision Zero principles in the development review process, add a specific Vision Zero representative to the Development Review Committee (DRC) to review the development application and Vision Zero elements of LATR transportation impact studies and to make recommendations regarding how to incorporate the conclusions and safety recommendations of LATR transportation impact studies.

The DRC plays an important role in the development review process and should be used as a platform to elevate travel safety principles. An appropriate individual with a focus on Vision Zero, representing a public agency or Vision Zero advocacy group, should be incorporated into the committee.
Chapter 5. Transportation Recommendations

Transportation Impact Study Approach
Transportation Impact Study Approach

R5.4

Introduce a Vision Zero Impact Statement for all LATR studies pertaining to subdivisions that will generate 50 or more peak-hour person trips.

To ensure development is executed to better align with Vision Zero principles, all LATR studies must include a Vision Zero Impact Statement that describes:

• any segment of the high injury network located on the development frontage.
• crash analysis for the development frontage.
• an evaluation of the required sight distance for all development access points.
• identification of conflict points for drivers, bicyclists and pedestrians and a qualitative assessment of the safety of the conflict.
• a speed study including posted, operating, design and target speeds.
• any capital or operational modifications required to maximize safe access to the site and surrounding area, particularly from the Vision Zero Toolkit.
For LATR studies of new development generating 50 or more peak-hour weekday person trips, couple current multi-modal transportation adequacy tests with options that can be implemented over time utilizing Vision Zero-related tools and resources currently available and under development. When the appropriate set of tools described in Recommendation R5.1 are operational, the current multi-modal transportation adequacy tests should be updated as follows.
Transportation Impact Study Approach

Revised LATR (Vision Zero-enhanced)

- Safety System (50 person trip trigger)
  - Vision Zero Test
    - Reduce the estimated number of crashes based on predictive safety performance functions or number of conflict points
- Motor Vehicle System (50 person trip trigger)
  - Retain existing capacity test
Transportation Impact Study Approach

Revised LATR (Vision Zero-enhanced)

- Pedestrian System
  - Retain existing test for ADA compliance (50 pedestrian trip trigger)
  - Acceptable pedestrian level of comfort within 500 feet of the site boundary, or to transit stops within 1,000 feet (5 pedestrian trip trigger)
  - Lighting review (5 pedestrian trip trigger)

- Bicycle System
  - Existing test – low levels of traffic stress within 750 feet of the site (5 bicycle trip trigger)

- Transit System
  - Existing capacity test – peak load level of service (5 transit trip trigger)
Chapter 5. Transportation Recommendations

Transportation Impact
Study Scoping
Transportation Study Scoping

Eliminate the LATR study requirement for motor vehicle adequacy in Red Metrorail Station Policy Areas (MSPAs).

**R5.6**

- Why do this?
  - Capacity-based measures often result in mitigation requirements in conflict with Vision Zero
  - Leverage significant Metrorail investment to support desired development
  - Multi-modal environment provides alternative travel mode opportunities
  - Robust street grid disperses traffic

- Retain adequacy tests for non-auto modes (i.e., ped, bike and transit)
Chapter 5. Transportation Recommendations

Transit Corridor
Congestion Standards
Increase the intersection delay standard to 100 seconds/vehicle for transit corridor roadways in Orange and Yellow policy areas to promote multi-modal access to planned Bus Rapid Transit service in transit corridors.

- Why do this?
  - Consistency with Veirs Mill Corridor Master Plan recommendation
  - Consistency with Vision Zero
  - Encourages transit-oriented development
R5.7

- Transit corridor roadways traverse Red, Orange and Yellow policy areas
- Recommendation will not apply in Red Metro Station policy areas (consistent with recommendation R5.6)

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Chapter 5. Transportation Recommendations

Purple Line Station Policy
Area Categorization
R5.8

Place the three Purple Line Station policy areas in a new dark red policy area category. Conceptually, this change will reflect a “hybrid” between the red and orange policy area categorization.

• The Purple Line is imminent, scheduled for completion in 2023
• The Purple Line traverses three Purple Line policy areas:
  o Chevy Chase Lake
  o Long Branch
  o Takoma/Langley
Place the three Purple Line Station policy areas in a new dark red policy area category. Conceptually, this change will reflect a “hybrid” between the red and orange policy area categorization.

- Why do this?
  - Recognition that policy area categorizations may change over time
  - Leverage improved transit service provided by Purple Line to support transit-oriented development
Commensurate with this new categorization, the congestion standard for signalized intersections and transportation impact tax rates in the Purple Line Station policy areas will change.

<table>
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<tr>
<th>Purple Line Station Policy Area</th>
<th>Current HCM Delay Standard (seconds/vehicle)</th>
<th>Proposed HCM Delay Standard (seconds/vehicle)</th>
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<tr>
<td>Long Branch</td>
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<td>Takoma/Langley</td>
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<td>Long Branch</td>
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Commensurate with this new categorization, the congestion standard for signalized intersections and transportation impact tax rates in the Purple Line Station policy areas will change.
Chapter 5. Transportation Recommendations

Transportation Monitoring
Transportation Monitoring

Continue producing the Mobility Assessment Report (MAR) on a biennial schedule as a key travel monitoring element of the County Growth Policy.

• Summarizes the trends, data, and analysis results used to track and measure multi-modal transportation mobility conditions in Montgomery County.

• Provides information to residents and public officials regarding the state of the county’s transportation system, showing not only how the system is performing, but also how it is changing and evolving.

• Given the desire to combine the MAR with the biennial monitoring element of the Bicycle Master Plan, change the name of the report to Travel Monitoring Report.
Chapter 5. Transportation Recommendations
Policy Area Review for Master Plans
The proposed auto and transit accessibility metric is the average number of jobs that can be reached within a 45-minute travel time by automobile or walk access transit.

**What?**  
Number of jobs accessible within 45 minutes greater than existing value  
- Auto: 1,159,950 jobs on average  
- Transit: 134,160 jobs on average

**How?**  
Travel/4 Model

**Where?**  
TAZ level; population-weighted average to County

**Why?**  
Indicates accessibility to destinations  
Can demonstrate accessibility tradeoff of new destination options, increased density of development, increased congestion, and transportation network changes
The proposed metric for auto and transit travel times is average time per trip, considering all trip purposes.

**What?** Average travel time per trip (all trips) less than future baseline
- 19 minutes for Auto (vs. 16 minutes existing)
- 52 minutes for Transit (vs. 50 minutes existing)

**How?** Travel/4 Model + custom script

**Where?** TAZ level; County average for all trips

**Why?** Indicates total amount of time spent traveling per trip

- Travel time more intuitive measure of burden than intersection delay
- Changes in a Policy Area affect travel times not only for that policy area but for much of the County.
- Congestion may increase, but effects on travel times for individual trips may be offset by changes to trip distribution patterns and shorter trip distances afforded by new destination options in closer proximity.
The proposed metric for vehicle miles traveled per capita is daily miles traveled per “service population,” where “service population” is the sum of population and total employment for a particular TAZ.

**What?**
- Daily vehicle miles traveled per “service population”
- Service population = population + total employment
- Less than future baseline
- 12.4 VMT per capita (vs. 13.0 existing)

**How?**
- Travel/4 Model + custom script
- 50% of origin VMT + 50% of destination VMT
The proposed metric for vehicle miles traveled per capita is daily miles traveled per “service population,” where “service population” is the sum of population and total employment for a particular TAZ.

Where? Service Population-weighted County average

Why? VMT per capita will reflect changes in trip distribution patterns, trip lengths, and shifts in mode of travel due to changing destination options.

Changes in a Policy Area affect vehicle miles traveled not only for that policy area but for other parts of the county as well.
The proposed metric for non-auto driver mode share is the percentage of non-auto driver trips (i.e., HOV, transit and nonmotorized trips) for trips of all purposes.

**What?**
% of non-auto driver trips greater than future baseline 46% NADMS for all trip purposes

**How?**
Travel/4 Model + custom script
Includes origin and destination trip ends

**Where?**
TAZ level; summarized for all county trips

**Why?**
Indicates use of non-auto modal options
Changes in a policy area affect mode choice decisions not only for that policy area but for other parts of the county as well.
Policy Area Review – Bicycle Accessibility

The proposed metric for bicycle accessibility is the Countywide Connectivity metric documented in the 2018 Montgomery County Bicycle Master Plan (page 200).

What? Percentage of potential bicycle trips able to be made on a low-stress bicycling network. (“appropriate for most adults” or “appropriate for most children”)

Consistent with approach for Objective 2.1 of Bicycle Master Plan – “Countywide Connectivity”

How? ArcMap GIS script network analysis

Bicycle Master Plan Bike Stress Map (County Only)

Bicycle trip length decay function

Where? Census Block Group level

Countywide % of potential bicycle trips

Why? Indicates bike accessibility to destinations in Montgomery County

Proxy for safe segment and crossing connectivity
The proposed metric for bicycle accessibility is the Countywide Connectivity metric documented in the 2018 Montgomery County Bicycle Master Plan (page 200).