



2020



Montgomery Planning | Functional Planning & Policy Division

Subdivision Staging Policy Update

Briefing on Staff Recommendations

May 28, 2020

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MONTGOMERY PLANNING VISION ZERO



WORK PLAN

Chapter 5. Transportation Recommendations

Vision Zero Resources

Vision Zero Resources

R5.1

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
- Ongoing - Pedestrian Master Plan, Predictive Safety Analysis, Pedestrian Level of Comfort Map, Predictive Safety Analysis, Pedestrian Level of Comfort Map, Vision Zero Toolkit and Complete Streets Design Guide
- 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

LATR

Local Area Transportation Review Guidelines

SPRING 2017



Motor Vehicle Metrorail Bicycle Bus Rapid Transit MARC Train Pedestrian

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Mitigation Prioritization

R5.2

Prioritize mitigation strategies designed to improve travel safety.

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

Chapter 5. Transportation Recommendations
Development Review
Committee

LATR

Local Area Transportation Review Guidelines

SPRING 2017



Motor Vehicle Metro Rail Bicycle Bus Rapid Transit MARC Train Pedestrian

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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

LATR

Local Area Transportation Review Guidelines

SPRING 2017



Motor Vehicle Metro Rail Bicycle Bus Rapid Transit MARC Train Pedestrian

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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.

Transportation Impact Study Approach

R5.5

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

R5.5

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

R5.5

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

LATR

Local Area Transportation Review Guidelines

SPRING 2017



Motor Vehicle Metro Rail Bicycle Bus Rapid Transit MARC Train Pedestrian

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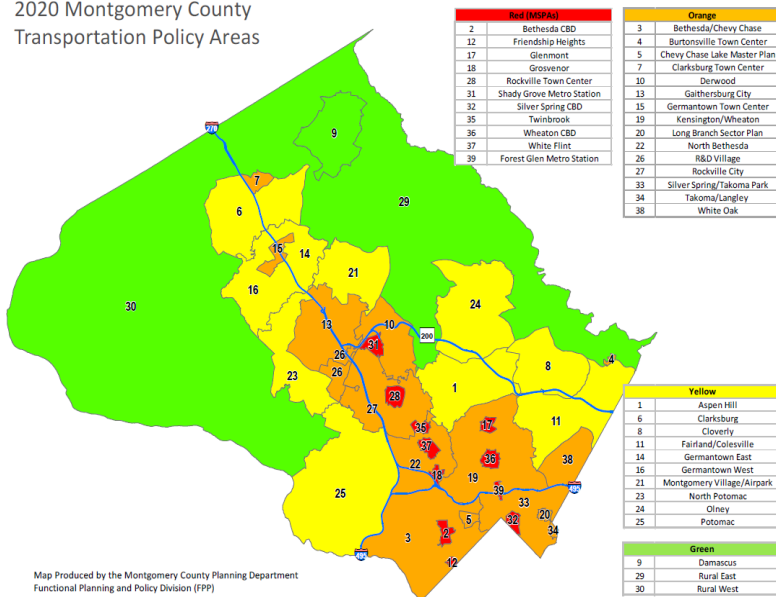
Transportation Study Scoping

R5.6

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

- 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)

2020 Montgomery County
Transportation Policy Areas



Map Produced by the Montgomery County Planning Department
Functional Planning and Policy Division (FPP)
May 11, 2020

Chapter 5. Transportation Recommendations

Transit Corridor Congestion Standards



Transit Corridor Congestion Standard

R5.7

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

Transitway Corridors:

1. Georgia Avenue North
 2. Georgia Avenue South
 3. MD355 North
 4. MD355 South
 5. New Hampshire Ave
 6. North Bethesda Transitway
 7. Randolph Road
 8. University Boulevard
 9. US29
 10. Veirs Mill Road
- CCT. Corridor Cities Transitway



Transit Corridor Congestion Standard

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)

Table 16 : Transit Corridor Roadway Intersection Congestion Standards

Transit Corridor Roadway (1)	Policy Area Traversed	Policy Area Category	Current Congestion Standard (secs/veh)	Proposed Congestion Standard (secs/veh)
1. Georgia Ave North	Olney Aspen Hill	Yellow	55 59	100
2. Georgia Ave South	Kensington/Wheaton Silver Spring/Takoma Park	Orange	80 80	100
3. MD 355 North	Clarksburg Clarksburg Town Center Germantown East Germantown Town Center Gaithersburg City Rockville City	Yellow Orange Yellow Orange Orange Orange	51 63 51 63 51 63	100
4. MD 355 South	Rockville City North Bethesda Bethesda/Chevy Chase	Orange	63 71 80	100
5. New Hampshire Ave	Fairland/Colesville White Oak	Yellow Orange	59 80	100
6. North Bethesda Twy: Old Georgetown Rd (2) Rock Spring Dr	North Bethesda	Orange	71	100
7. Randolph Road	Kensington/Wheaton White Oak	Orange	80	100
8. University Boulevard	Kensington/Wheaton Silver Spring/Takoma Park	Orange	80	100
9. US 29	Burtonsville Town Center Fairland/Colesville White Oak Kensington/Wheaton Silver Spring/Takoma Park	Orange Yellow Orange Orange Orange	71 59 80 80 80	100
10. Veirs Mill Road (3)	Kensington/Wheaton Aspen Hill North Bethesda Rockville City	Orange Yellow Orange Orange	80 59 71 63	100
11. Corridor Cities Twy: (4) Century Boulevard Observation Drive	Germantown West Germantown Town Center Germantown East Clarksburg	Yellow Orange Yellow Yellow	51 63 51 51	100



Chapter 5. Transportation Recommendations

Purple Line Station Policy Area Categorization

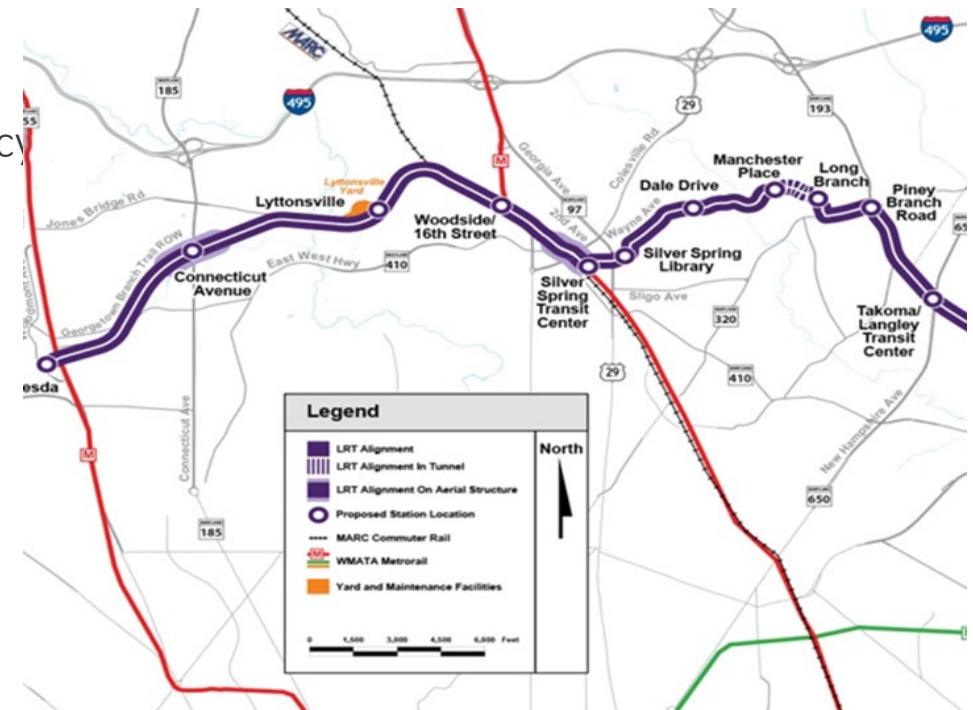


Purple Line Station Policy Area Categorization

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:
 - Chevy Chase Lake
 - Long Branch
 - Takoma/Langley

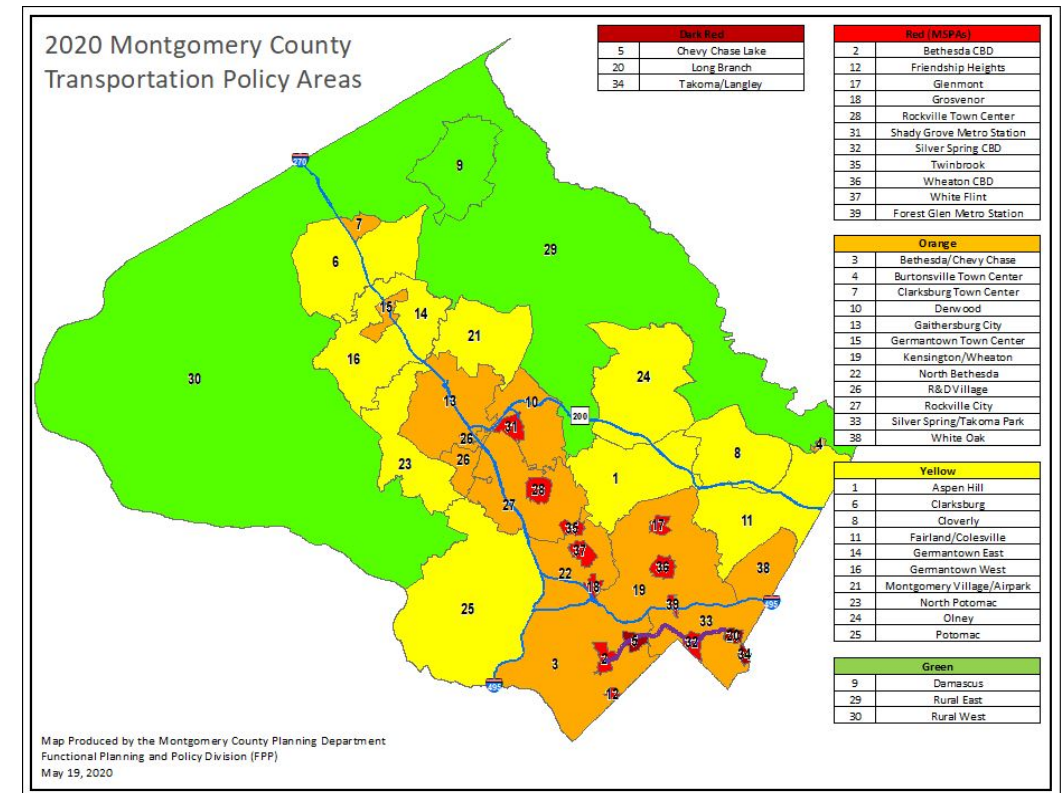


Purple Line Station Policy Area Categorization

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.

- 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



Purple Line Station Policy Area Categorization

R5.8

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.

Purple Line Station Policy Area	Current HCM Delay Standard (seconds/vehicle)	Proposed HCM Delay Standard (seconds/vehicle)
Long Branch	80	100
Takoma/Langley	80	100
Long Branch	80	100

Purple Line Station Policy Area Categorization

R5.8

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.

Building Type	PROPOSED				
	Red Policy Areas (Metro Stations)	Dark Red Policy Areas (Purple Line Stations)	Orange Policy Areas	Yellow Policy Areas	Green Policy Areas
Residential Uses					
Single-Family detached (per unit)	\$7,838	\$13,715	\$19,591	\$24,490	\$24,490
Single-Family attached (per unit)	\$6,413	\$11,222	\$16,030	\$20,038	\$20,038
Multifamily Low Rise (per unit)	\$4,986	\$8,726	\$12,465	\$15,582	\$15,582
Multifamily High Rise (per unit)	\$3,561	\$6,233	\$8,904	\$11,130	\$11,130
Senior Residential (per unit)	\$1,424	\$2,493	\$3,562	\$4,452	\$4,452
Student-Built Houses (per unit)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Commercial Uses					
Office (per sq. ft. GFA)	\$7.15	\$12.53	\$17.90	\$22.40	\$22.40
Industrial (per sq. ft. GFA)	\$3.60	\$6.25	\$8.90	\$11.20	\$11.20
Bioscience facility (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retail (per sq. ft. GFA)	\$6.35	\$11.18	\$16.00	\$19.95	\$19.95
Place of worship (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Clergy House (per unit)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Private elementary and secondary school (per sq. ft. GFA)	\$0.55	\$1.00	\$1.45	\$1.85	\$1.85
Hospital (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Charitable, Philanthropic Institution (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other nonresidential (per sq. ft. GFA)	\$3.60	\$6.25	\$8.90	\$11.20	\$11.20

Chapter 5. Transportation Recommendations

Transportation Monitoring



Transportation Monitoring

R5.9

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



VEIRS MILL CORRIDOR MASTER PLAN



CONNECTING COMMUNITIES

PLANNING BOARD DRAFT
December 2018

Policy Area Review – Auto & Transit Accessibility

R5.10

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

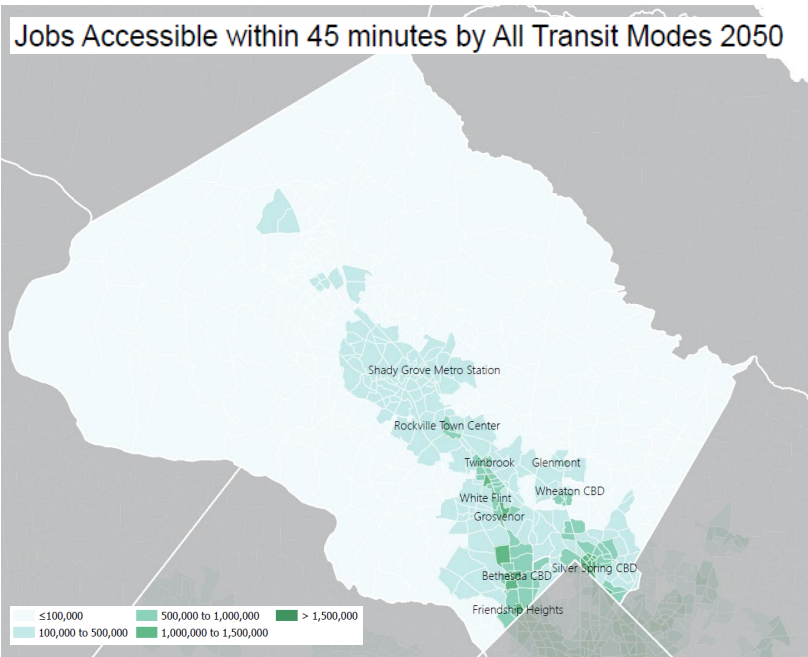
Transit: 134,160 jobs on average

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



Policy Area Review – Auto & Transit Travel Times

R5.11

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.

Policy Area Review – Vehicle Miles Traveled per Capita

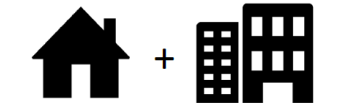
R5.12

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.

Vehicle Miles Traveled
(VMT)



= VMT per Capita



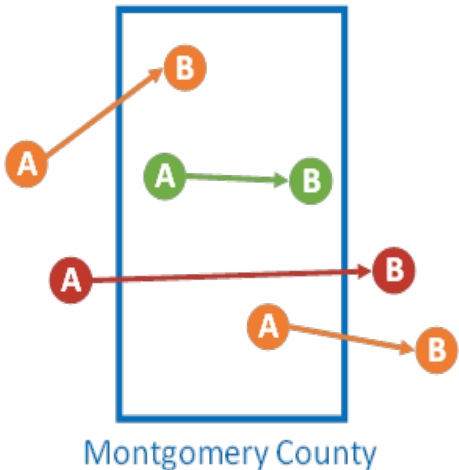
Population + Employment
(Service Population)

- 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

Policy Area Review – Vehicle Miles Traveled per Capita

R5.12

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.



100% of mileage from trips completely within the county

+

50% of mileage from trips that begin OR end in the county

+

0% of mileage from trips that only pass through the county

=

Vehicle Miles Traveled (VMT)



Where? Service Population-weighted County average

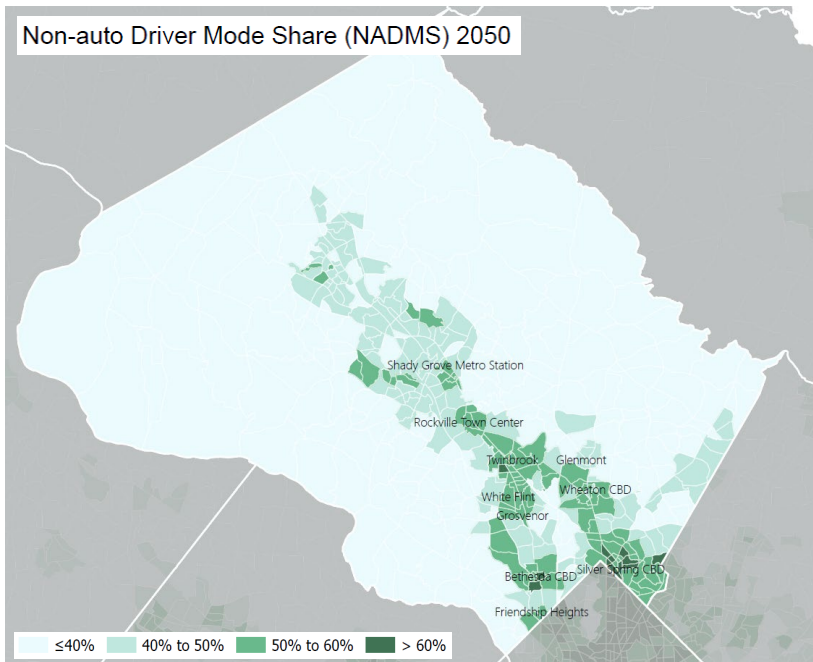
Why? VMT per capita will reflect changes in trip distribution patterns, trip lengths, and shifts in mode of travel due to changing destination options.

Changes in a Policy Area affect vehicle miles traveled not only for that policy area but for other parts of the county as well.

Policy Area Review – Non-Auto Driver Mode Share

R5.13

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

R5.14

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

Policy Area Review – Bicycle Accessibility

R5.14

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

OBJECTIVE	METRIC	EXIST-ING (2018)	FUND-ED	HIGH PRIOR-ITY	TIER 1	TIER 2	TIER 3	TIER 4	BUILD OUT
GOAL 2: CREATE A HIGHLY-CONNECTED, CONVENIENT AND LOW-STRESS BICYCLING NETWORK									
21	Countywide Connectivity	16%	N/A	20%	30%	40%	50%	50%	80%

