2025 TRAVEL MONITORING REPORT

Montgomery Planning
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

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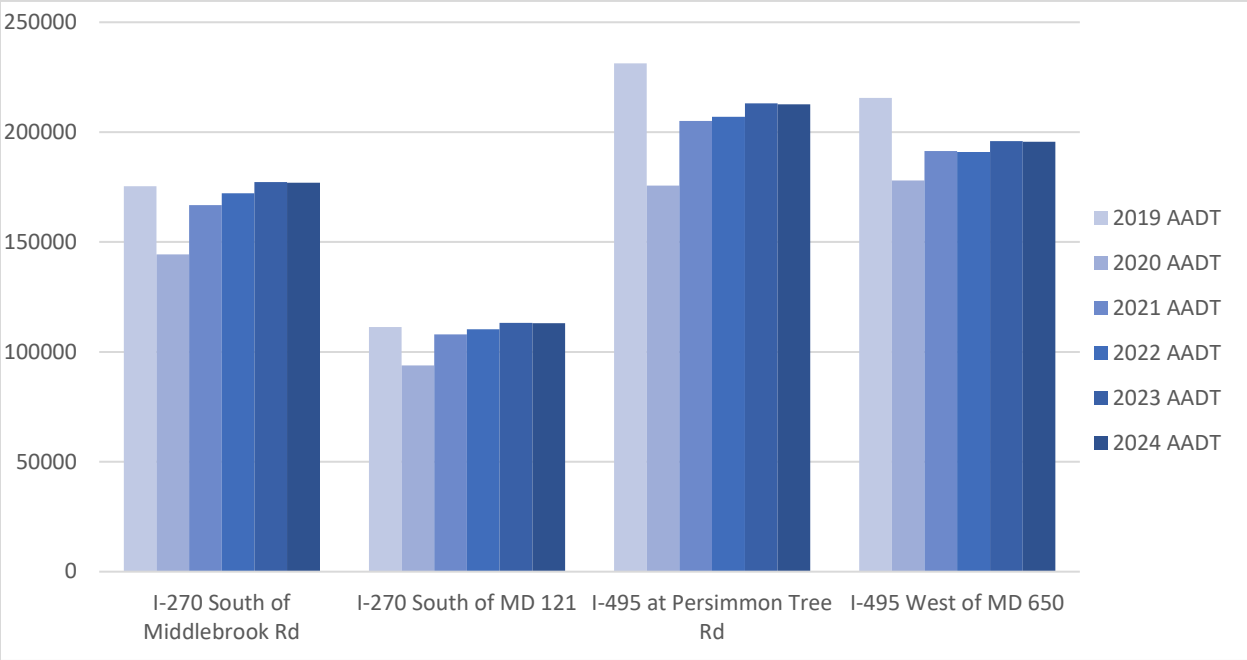
Executive Summary

The 2025 Travel Monitoring Report contains a compilation of the agency's transportation-related monitoring activities and is required by the Growth and Infrastructure Policy (GIP), the planning framework that coordinates new development with the provision of public infrastructure. As with each edition of the report, it strives to explore and leverage new transportation datasets and analytical tools that help provide a clearer vision of how the county is meeting its transportation goals, objectives, and metrics as defined in *Thrive Montgomery 2050*, the *Bicycle Master Plan*, and the *Pedestrian Master Plan*.

Travel Trends

Travel patterns throughout Montgomery County continue to follow the trends that have emerged since the COVID-19 pandemic. The number of vehicle miles traveled per capita remains 10% lower than 2019 levels. The percentage of people who work from home (teleworking) has continued to increase and is nearly 20% higher than in 2019, and the number of people traveling to work who use a mode other than driving alone has increased by 11%.

Figure 1: Annual Average Daily Traffic (AADT) on State Routes

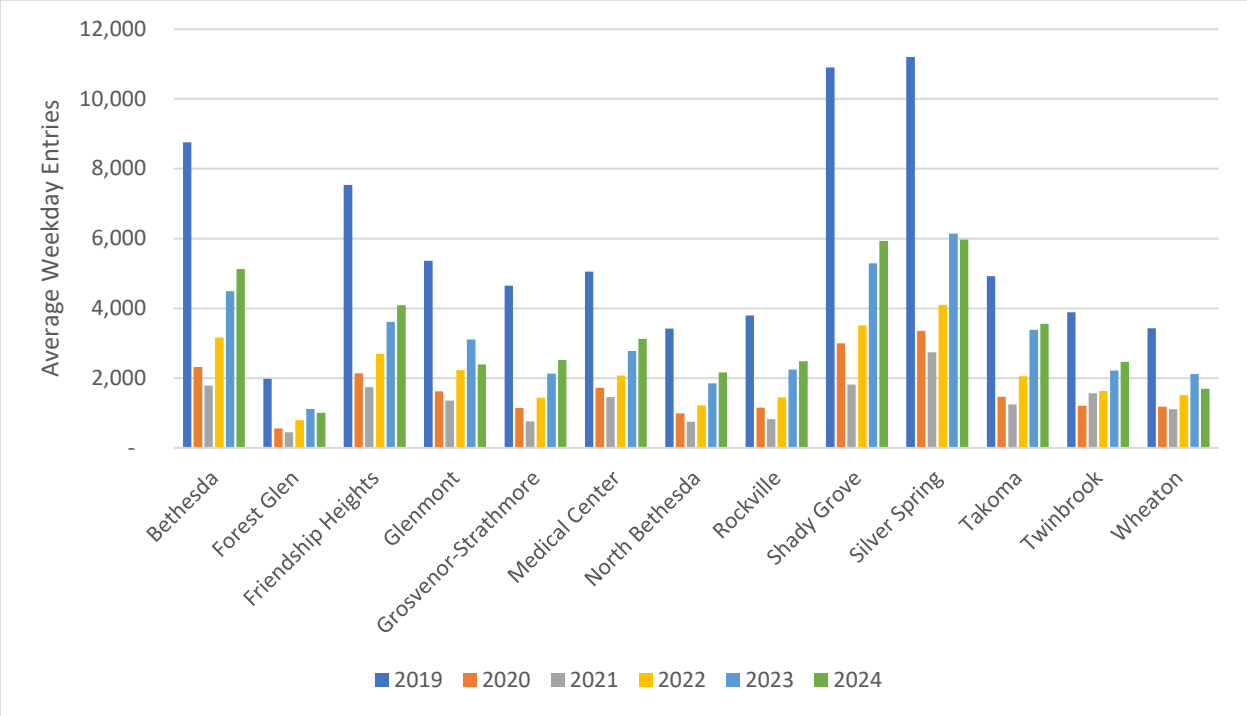


Source: SHA AADT Locations, https://data.imap.maryland.gov/datasets

Despite this, delay on the county's 12 major corridors is approaching the peak levels seen before the pandemic as volumes continue to rebound.

Public transit ridership, specifically using the county's two bus services, has returned to near pre-pandemic levels, but travel time continues to lag far behind auto-based travel by nearly 50%. Metrorail continues to experience low ridership compared with pre-pandemic levels.

Figure 2: Average Weekday Entries to Montgomery County Metro Red Line Stations (2019–2024)



Source: WMATA Ridership Data Portal, https://www.wmata.com/initiatives/ridership-portal/

Takeaways

The county should continue to prioritize investments in people-centric travel modes, including walking, bicycling, and transit service that is frequent, fast, convenient, reliable, safe, and accessible. *Thrive Montgomery 2050* clearly addresses transit expansion, pedestrian and bicycle infrastructure, and transit-oriented development—not auto-centric expansion—as the path forward.

Thrive Montgomery 2050 Growth Corridors

Thrive Montgomery 2050 is the county's framework for achieving economic competitiveness, racial and social equity, and environmental sustainability. The transportation section of Thrive focuses on growth corridors and activity centers to connect people, places, and ideas.

Montgomery County's Complete Streets policy promotes safety, sustainability, and vitality along roadways. Complete Streets are designed to encourage safe and accessible multi-modal transportation for pedestrians, cyclists, transit riders, and motorists alike.

Chapter 3 of this report presents transportation-related metrics through the lens of Thrive's Growth Corridors and provides recommendations based on the Complete Streets Design Guide (CSDG).

Takeaways

The findings demonstrate a continued recovery in automobile travel volume with delay approaching, or in some cases exceeding, pre-pandemic levels along the growth corridors. Progress continues to be made in building out planned bikeways, increasing pedestrian comfort, providing more closely

spaced protected crossings, and building out a street grid. However, each corridor is unique, and many of the metrics are not expected to change drastically in the short term, as these modifications can take years to implement.

Bicycle Master Plan

The *Bicycle Master Plan* recommends a robust network of bikeways and bicycle parking and identifies numerous policy and programmatic recommendations. During the two-year period ending on December 31, 2024, highlights in implementing these recommendations include:

Takeaways

Bikeways

- 7.0 miles of master-planned bikeways were built, including 4.6 miles of sidepath and 0.6 miles of separated bike lanes. An additional 2.9 miles of non-master planned bikeways were built during this time (for example, the separated bike lanes on Old Georgetown Road).
- 7.2 miles of new master-planned bikeways were under construction on December 31, 2024, including 4.8 miles of off-street trails (largely the Capital Crescent Trail), 1.0 miles of sidepath, 0.1 miles of Neighborhood Connectors, and 1.3 miles of separated bike lanes.
- 15.3 miles of bikeways were funded in the county's capital budget but not yet constructed, including 10.5 miles of sidepath, 2.3 miles of neighborhood greenways, 2.4 miles of separated bike lanes, and 0.3 miles of off-street trails.
- 1.7 miles of master-planned bikeways were conditioned in development projects approved by the Montgomery County Planning Board but not yet constructed, including 0.6 miles of sidepath and 1.1 miles of separated bike lanes. An additional 2.3 miles of non-master planned bikeways were conditioned in development approvals.

Table 1: Status of Master-Planned Bikeway Recommendations as of December 31, 2024 (Miles) [1]

Facility Type[2]	Bikeway Type	Existing	Unbuilt	Total
Trails	Off-Street Trails	98.8	76.6	175.4
	Stream Valley Park Trails	27.9	2.2	30.0
	Neighborhood Connectors	12.7	2.9	15.6
Separated Bikeways	Separated Bike Lanes	4.8	108.1	112.9
	Sidepaths	128.7	525.1	653.7
Striped Bikeways	Buffered Bike Lanes	0.0	6.8	6.8
	Conventional Bike Lanes	14.3	25.1	39.3
	Contra-Flow Bike Lanes	0.0	4.9	4.9

[1] Miles of bikeways includes amendments to the *Bicycle Master Plan* that have occurred since its approval. The existing miles of bikeways includes bikeways that have been completed since the plan's approval.
[2] Descriptions of each bikeway type can be found in the Glossary.

Facility Type[2]	Bikeway Type	Existing	Unbuilt	Total
Bikeable Shoulders	Bikeable Shoulders	11.4	118.3	129.7
Shared Roads	Shared Streets	0.0	2.3	2.3
	Neighborhood Greenways	1.6	49.5	51.1
	Priority Shared Lane Markings	0.0	4.9	4.9
Total	**Total**	**300.1**	**926.6**	**1,226.7**

Source: Transportation Planning Department analysis using Hybrid Network

Bicycle Parking

The Montgomery County Department of Transportation (MCDOT) Bikeways Program includes an incentive whereby the county will install up to 25 bicycle racks annually upon request. Between December 2022 and December 2024, the county installed inverted-U racks at Sargent Shriver Elementary School and at a single development site.

In addition, between December 2022 and December 2024, the Planning Board approved developments conditioned to construct over 1,500 long-term and over 200 short-term secure bicycle parking spaces.

Programs and Policies

The county continues to advance programs focused on achieving the *Bicycle Master Plan*'s goals. In addition to ongoing maintenance of existing bikeways, as well as design and construction of new bikeways, the MCDOT is expecting to add two additional automated counters in 2025 and continues to advance the Neighborhood Greenways program with two bikeways in design.

The county has also implemented a policy that will help achieve the goals and objectives of the *Bicycle Master Plan*. Notable policies enacted between December 2022 and December 2024 include:

- Adoption of the *Pedestrian Master Plan* in October 2023, which reassessed the boundaries of downtowns and town centers throughout the county. These areas require a higher level of roadway design to enhance safety for pedestrians and cyclists.
- Approval of the Complete Streets Design Guide Version 1.2 in April 2024, which recommends extending the marking of Separated Bike Lanes through intersections and designates either a sidepath or Separated Bike Lanes as preferred facilities, depending on roadway context.

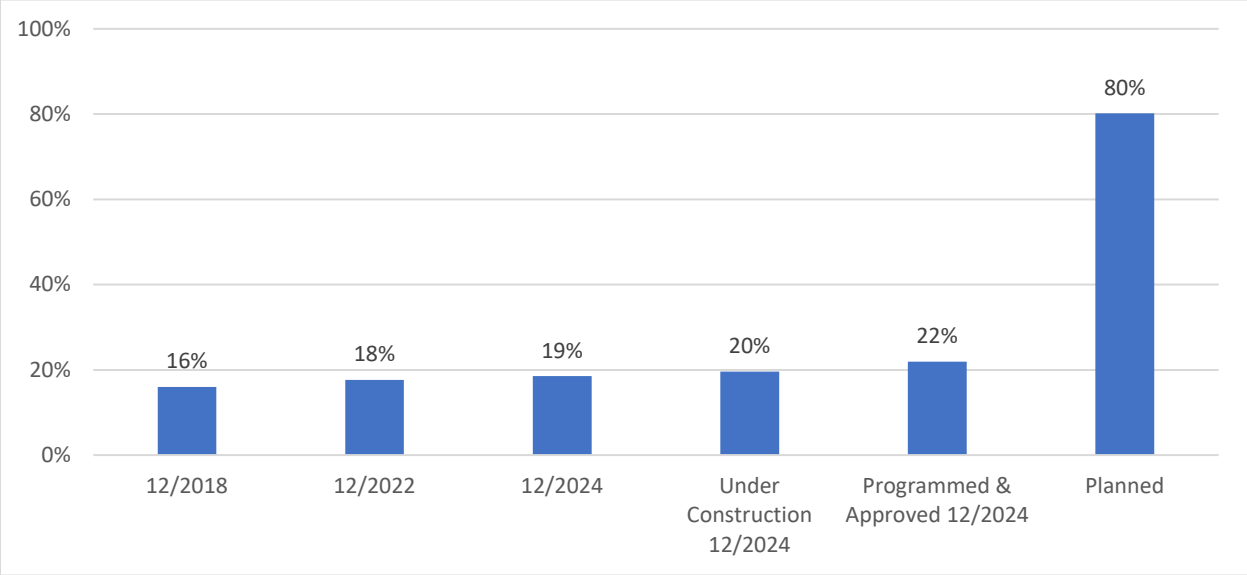
A more detailed list of bicycle-friendly programs and policies currently in place, recently adopted, or forthcoming can be found in Chapter 4, Bicycle-Friendly Programs, in Table 74 on page 115.

Low-Stress Connectivity

Countywide Connectivity is the overall measure of low-stress connectivity and measures the percentage of potential bicycling trips that can be made on a low-stress bicycling network. Connectivity increased from 18% to 19% between December 2022 and December 2024. Upon completion of projects that were under construction in December 2024, projects in the Capital

Improvements Program (CIP), or development projects approved in 2023 and 2024, countywide connectivity can be expected to grow to 22%. Planned improvements will ultimately result in 80% of potential bicycling trips being possible on a low-stress network.

Figure 3: : Growth in Countywide Low-Stress Connectivity



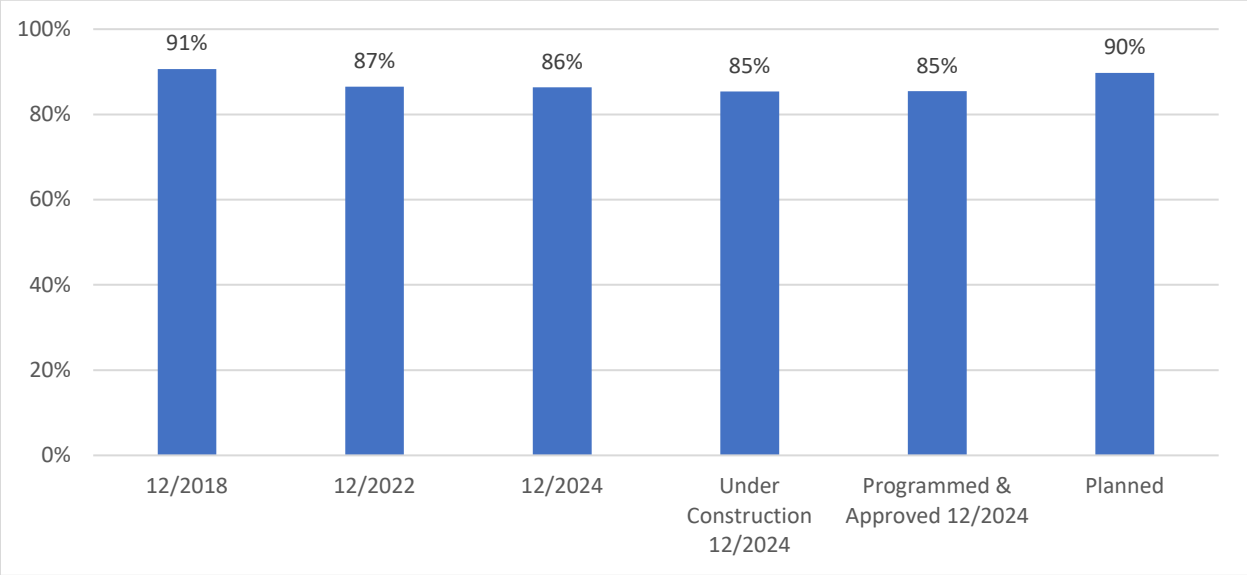
Source: Transportation Planning Department analysis using Hybrid Network

Equity

Equitable access to low-stress bicycling continued to decrease over the six years since the *Bicycle Master Plan* was approved. Equity Focus Areas[3] (EFAs) had 86% of the low-stress connectivity that non-EFAs experienced in December 2024, down from 87% in December 2022 and from 91% in December 2018. On completion of the projects that are under construction or funded in the CIP, and when conditions of development approvals are completed, the metric will remain at 85%. Significant and dedicated efforts are needed to address inequitable access to low-stress bicycling.

[3] Equity Focus Areas are parts of Montgomery County that are characterized by high concentrations of lower-income people of color, who may also speak English "less than very well."

Figure 4: Equitable Access to Low-Stress Bicycling



Source: Transportation Planning Department analysis using Hybrid Network

Pedestrian Master Plan

In the two-year period ending on December 31, 2024, two main efforts have advanced the *Pedestrian Master Plan* vision:

1. The County Council's passage of the Safe Streets Act of 2023 was significant because it required Right Turn on Red prohibition and Leading Pedestrian Intervals at county-controlled intersections in Downtowns and Town Centers and within a certain distance of schools, parks, and other destinations across the county. This helps advance Key Action P-2d.
2. MCDOT published its Accessible Design Guide in November 2024. The document will be used to make public and private projects across the county more accessible. It advances several Key Actions, including:
    - B-3a—Update state and county design standards to reflect a preference for perpendicular curb ramps aligned with the crosswalk.
    - B-3b—Update the CSDG to establish ladder-style, high-visibility crosswalks as the default crosswalk design in Montgomery County.

- B-4g—Provide public seating, restrooms, and other pedestrian amenities in Downtowns, Town Centers, and priority park locations and along Boulevards.
- B-5a—Develop lighting standards for each street type and trails.
- EA-1b—Saw cut sidewalk joints to minimize vibrations for pedestrians using mobility devices or pushing strollers.
- EA-1d—Construct the pedestrian-clear zone using materials approved by MCDOT's Design Standards and Specifications.
- EA-4b—Ensure that every pedestrian push button has a light that informs pedestrians when the pedestrian phase has been triggered.
- EA-5a—Develop standards on the use of tactile walking surface indicators in the pedestrian and transit networks.

3. MCDOT updated the county's lighting policy by adopting the Streetlighting Design Requirements, Installation Procedures, and Specifications. This will make lighting design better countywide for public and private projects, improving visibility and safety. This action also implements Key Action B-5a (develop lighting standards for each street type and trails) of the *Pedestrian Master Plan*. The updated lighting policy is now the basis for the Local Area Transportation Review illuminance test, so private development projects are designing and installing high-quality lighting as part of their regulatory requirements.

Takeaways

The most recent updates to the *Pedestrian Master Plan* monitoring metrics present a mixed picture of plan implementation progress.

- Pedestrian mode share has decreased in the county since 2022, though walking has become a more popular travel mode to elementary and high schools in that time.
- Residents were more satisfied with individual elements of their pedestrian experience than they were in 2022.
- The percentage of pathways and crossings that are comfortable increased slightly.
- The number of severe and fatal pedestrian crashes decreased.
- EFAs are slightly less likely to be the site of severe and fatal pedestrian crashes than in 2022.

Bicycle and Pedestrian Survey

In the fall of 2024, a countywide survey was conducted to help ascertain behavior and attitudes toward walking and bicycling in the county. The survey included questions on purpose, frequency, duration, and satisfaction with the respondent's experience walking, rolling, and biking around Montgomery County in the previous month. Further breakdown and analysis are reported in Appendix B.

Takeaways

- Most walking and biking trips were for recreation and exercise.
- Walking trips averaged about 20 minutes, and biking trips averaged about 60 minutes.
- Rolling trips, particularly among urban and suburban respondents, are extraordinarily long and often used for utility purposes.
- Urban residents tended to be more satisfied with their walking experience than country or suburban residents.
- Many country residents expressed dissatisfaction with the number of sidewalks on their route.
- Among country residents who did not walk in the last 30 days, most cited concerns with traffic safety as a driver of their decision not to walk, followed by a lack of adequate, connected pathways.
- Women were particularly concerned with personal safety and traffic safety. Men reported higher average levels of satisfaction.
- Black respondents made up the majority of those concerned with traffic safety and with the lack of adequate or connected pathways and crossings.
- In their responses to the survey questions and in the comment section of the survey, residents expressed dissatisfaction with the behavior of cars and with the enforcement of traffic laws, both for drivers and cyclists.

Recommendations

The Travel monitoring report provides a platform for offering recommendations to address some of the challenges that have arisen since the approval of the various master plans discussed above along with guidance on how to proceed over the next few years. While fiscal capacity may limit the county's ability to implement all recommendations in the next two years, they should be considered as implementation of the *Bicycle Master Plan, Pedestrian Master Plan*, and *Thrive Montgomery 2025* proceeds.

Thrive Montgomery 2050

The following recommendations are based on the evaluation in the Growth Corridor profiles, found in Chapter 3, and are intended to improve protected crossing spacing, build out a grid of streets, and build out the walking and bicycling networks.

Protected Crossing Spacing

Table 2 recommends several locations along *Thrive Montgomery 2050* Growth Corridors that should be considered for new protected crossings. These locations have some of the highest ratios of actual distance to target distance between protected crossings, and many are in EFAs.

Table 2: Recommended New Protected Crossings Along Thrive Growth Corridors

Location	Area	Actual (ft)	Target (ft)	Ratio
Georgia Avenue Growth Corridor				
August Drive to Forest Glen Road	Forest Glen Town Center	2,100	600	3.5
Arcola Avenue to Blueridge Avenue	Downtown Wheaton	1,400	400	3.4
Randolph Road to Shorefield Road	Glenmont Town Center	1,800	600	2.9
MD 355 Growth Corridor				
Gunners Branch Road to Plummer Drive	Foxchapel Town Center	2,500	600	4.2
Stringtown Road to Foreman Boulevard	Suburban	4,800	1,300	3.7
West Old Baltimore Road to Ridge Road	Suburban	4,700	1,300	3.6
Middlebrook Road to Germantown Road	Suburban	4,000	1,300	3.1
Little Seneca Parkway to West Old Baltimore Road	Suburban	3,600	1,300	2.7
New Hampshire Avenue Growth Corridor				
Chalmers Road to Powder Mill Road	Suburban	3,200	600	5.3
Wolf Drive to Venice Drive	Suburban	4,600	1,300	3.5
Old Georgetown Road Growth Corridor				
Fernwood Road to Rockledge Drive	Downtown Rock Spring	1,500	400	3.7
Randolph Road Growth Corridor				
Locksley Lane to New Hampshire Avenue	Colesville Town Center	3,000	600	5.0
Lauderdale Drive to Gaynor Road	Randolph Hills Town Center	2,800	600	4.6
Tamarack Road to Serpentine Way	Suburban	5,100	1,300	3.9
New Hampshire Avenue to Fairland Road	Colesville Town Center	2,200	600	3.6
Connecticut Avenue to Colie Drive	Veirs Mill - Randolph Town Center	1,800	600	3.0
Hawkesbury Lane to Locksley Lane	Suburban	3,800	1,300	2.9
River Road Growth Corridor				
Little Falls Parkway to Kenwood Station	Westbard Town Center	1,500	600	2.5
University Boulevard Growth Corridor				

Location	Area	Actual (ft)	Target (ft)	Ratio
Newport Mill Road to Valley View Avenue	Kensington Town Center	3,800	600	6.4
Piney Branch Road to Carroll Avenue	Long Branch Town Center	2,200	600	3.6
Colesville Road to Brunett Avenue	Four Corners Town Center	1,500	600	2.5
US 29 Growth Corridor				
Briggs Chaney Road to Greencastle Road	Briggs Chaney Town Center	5,300	1,300	4.1
University Boulevard to Southwood Avenue	Four Corners Town Center	2,100	600	3.4
Veirs Mill Road Growth Corridor				
Randolph Road to Ferrara Avenue	Veirs Mill - Randolph Town Center	1,900	600	3.1
Aspen Hill Road to Robindale Drive	Suburban	3,500	1,300	2.7

Source: Transportation Planning Department analysis using Level of Traffic Stress (LTS)Network

Grid of Streets

Appendix A includes a summary of block ratios in Montgomery County's nine existing and emerging downtowns and 48 town centers. To build out a grid of streets in Downtowns, in Town Centers, and along Growth Corridors, with block sizes based on the protected crossing spacing standards in the Complete Streets Design Guide, the county must complete the following tasks:

- Capital Projects: Continue to advance projects in the capital budget to build out the street grid, including North High Street Extended (CIP # 502310) in Olney and Burtonsville Access Road (CIP # 500500) in Burtonsville.
- Development Projects: Develop tools to reduce the size of blocks through the development approval process.
- Master Plans: Identify opportunities to expand the street grid in Downtowns, in Town Centers, and along Growth Corridors.

Pedestrian Network Comfort

Thrive Montgomery 2050 establishes a goal to "develop a safe, comfortable, and appealing network for walking, biking, and rolling." Table 3 presents the percentage of walkways along Growth Corridors that are considered acceptable for pedestrians, in comparison with 2022 data. Several corridors saw significant growth in the percentage of acceptable pedestrian walkways. Bus lanes implemented on University Boulevard and Georgia Avenue South and separated bike lanes on Old Georgetown Road improved pedestrian level-of-comfort scores. Along the MD 355 South corridor, renovations to crosswalks and sidewalks and the installation of new signals were key drivers of improved pedestrian comfort.

While the overall average of acceptable walkways is 24%, several corridors fall below this threshold. To support the county's long-term mobility and equity goals, Montgomery County should prioritize

upgrading pedestrian infrastructure along all Growth Corridors—especially in areas with below-average rates of acceptable walkways, including:

- Georgia Avenue North
- MD 355 North
- New Hampshire Avenue
- Randolph Road
- River Road
- Veirs Mill Road

Table 3: Pedestrian Walkway Evaluation Along Growth Corridors

Corridor	% Acceptable	Change from 2022	% Unacceptable	Change from 2022	% Gaps	Change from 2022
Connecticut Avenue	32%	1%	68%	-1%	0%	0%
Georgia Avenue North	21%	4%	78%	-4%	1%	0%
Georgia Avenue South	40%	10%	60%	-10%	0%	0%
MD 355 North	13%	2%	74%	4%	13%	-6%
MD 355 South	38%	12%	60%	-12%	2%	0%
New Hampshire Avenue	14%	1%	82%	0%	5%	0%
Old Georgetown Road	31%	15%	69%	-15%	0%	0%
Randolph Road	17%	0%	83%	0%	0%	0%
River Road	1%	0%	38%	4%	61%	-4%
University Boulevard	37%	28%	63%	-28%	0%	0%
US 29	25%	7%	49%	6%	27%	-12%
Veirs Mill	16%	2%	58%	2%	26%	-4%
Average	24%	7%	67%	-5%	9%	-2%

Source: Transportation Planning Department analysis using TLS Network

Bicycle Network Completeness

The 2018 *Bicycle Master Plan* established a goal of creating a highly connected, convenient, and low-stress bicycling network throughout Montgomery County. Figure 4 compares the percentage of master-planned bikeways along Growth Corridors that are existing, under construction, or funded as of December 2024 with their status in December 2022.

In 2024, the average bikeway completeness across all Growth Corridors was 13%, with many corridors falling below this average. Notable exceptions include the Georgia Avenue North and South corridors, which are progressing well, while others—such as the River Road corridor, which has 0% of bikeways built—remain significantly behind. The Old Georgetown Road corridor also shows encouraging progress, with multiple funded projects advancing toward implementation.

Given these trends, it is recommended that Montgomery County continue to prioritize the development of the bikeway network along all Growth Corridors, with a particular focus on those lagging in implementation, including:

- Connecticut Avenue
- New Hampshire Avenue
- River Road
- University Boulevard

Table 4: Bikeway Completion Evaluation Along Thrive Growth Corridors

Growth Corridor	% Existing		% Construction		% Programmed	
	2024	2022	2024	2022	2024	2022
Connecticut Avenue	2%	1%	0%	0%	0%	0%
Georgia Avenue North	12%	10%	0%	0%	3%	8%
Georgia Avenue South	13%	9%	0%	1%	21%	23%
MD 355 North	51%	29%	0%	0%	3%	2%
MD 355 South	21%	15%	0%	0%	5%	3%
New Hampshire Avenue	7%	5%	1%	1%	0%	1%
Old Georgetown Road	8%	0%	5%	0%	14%	13%
Randolph Road	15%	15%	0%	0%	0%	0%
River Road	0%	0%	0%	0%	0%	0%
University Boulevard	4%	4%	0%	0%	1%	1%
US 29	13%	13%	0%	0%	1%	1%
Veirs Mill Road	5%	4%	0%	0%	10%	9%
Average	13%	9%	0%	0%	5%	5%

Source: Transportation Planning Department analysis using TLS Network

Bicycle Master Plan

Bikeways

1. Prioritize construction of the bikeway projects in Table 5 to improve connectivity to downtowns, upgrade the county's temporary neighborhood greenways to permanent neighborhood greenways, and improve access to low-stress bicycling in EFAs.

Bicycle Parking at Public Schools

1. Over the next two years, prioritize funding to upgrade bicycle parking at the following schools: Dr. Ronald A. McNair ES, Glenallen ES, Bells Mills ES, Poolesville ES, Sligo Creek ES, Olney ES, Thomas W. Pyle MS, Silver Spring International MS, North Bethesda MS, Rosa M. Parks MS, Westland MS, Bethesda-Chevy Chase HS, Quince Orchard HS, Walt Whitman HS, and Walter Johnson HS.
2. Over the next six years, prioritize funding to upgrade bicycle parking at the following Title I/Focus schools and schools with high free- and reduced-price meals (FARMS) rates: Rolling

Terrace ES, Stedwick ES, South Lake ES, Arcola ES, Roberto W. Clemente MS, Forest Oak MS, Eastern MS, White Oak MS, Sligo MS, and Gaithersburg HS.

3. Provide Montgomery County Public Schools (MCPS) with an annual funding program for installing bicycle parking.
4. Have MCPS develop bike rack standards that correspond with standards identified in Montgomery County's zoning code.

Bicycle Parking Stations

Develop the organizational capacity to operate bicycle parking stations at the Bethesda Purple Line station and Silver Spring Transit Center and construct a bicycle parking station at the Glenmont Metrorail station to expand the reach of transit.

Pedestrian Master Plan

Pedestrian-Friendly Programs and Policies

A list and status of Key Actions identified in the *Pedestrian Master Plan* can be found on page 141

Prioritized Projects

Priority projects were identified through the development of the Travel Monitoring Report with consideration of previous planning efforts, equity, and safety in mind. Projects included new roadways, roadway extensions, Bicycle and Pedestrian Priority Areas (BiPPAs), bikeways, walkways, and trail improvements.

An initial list of 392 projects were reviewed, and ultimately 10 projects were identified as the highest priority. Some projects were previously funded in the county's CIP but require additional funding, while others will be added to the CIP for the first time.

Table 5: Project Priority List

Project	Project Type	Existing CIP #
Observation Drive Extended/Little Seneca Parkway Extended	Roadway	P501507
Summit Avenue Extension	Roadway	P502311
Bicycle-Pedestrian Priority Area Improvements—Wheaton Central Business District (CBD)	BiPPA	P502002
Bicycle-Pedestrian Priority Area Improvements—Downtown Silver Spring	BiPPA	P509975, P502004, P502001, P501110
Bicycle-Pedestrian Priority Area Improvements—Purple Line	BiPPA	P502004
Cherry Hill Road Bike Facility	Bikeway	P502314
US 29 BRT Corridor Combined BiPPA (South)	BiPPA	N/A
US 29 BRT Corridor Combined BiPPA (North)	BiPPA	N/A
Germantown Area Combined BiPPA	BiPPA	N/A
Full Lighting of the Capital Crescent Trail (Bethesda to Silver Spring)	Breezeway Improvement	N/A

Transit projects were considered but ultimately not included in the final list of projects, as MCDOT is advancing several Bus Rapid Transit projects on key corridors, including Viers Mill Road, MD 355, US-29, New Hampshire Avenue, and Old Georgetown Road.

Observation Drive Extended/Little Seneca Parkway Extended

This roadway project, located in Clarksburg, provides an extension of Observation Drive starting at the existing terminus of Observation Drive near Waters Discovery Lane. The extension would go north beyond West Old Baltimore Road to meet the extension of Little Seneca Parkway. Construction would create bikeways and sidewalks adjacent to the roadway.

This project provides a critical multi-modal connection in the Upcounty area, providing an additional north-south connection parallel to I-270 and Frederick Road (MD 355). This would help build out a more robust street network, providing traffic, transit, and non-motorized users with alternatives to the limited existing north-to-south roadways. The construction of the project would also support land redevelopment along the corridor.

The project is currently funded for planning and design in the CIP, but the construction dollars are programmed beyond six years. Additional funding would allow this vital project to be completed earlier.

Summit Avenue Extension

This roadway project, located in Kensington, would extend Summit Avenue from Plyers Mill Road to Farragut Road. This would provide an alternative route for traffic through a congested area, particularly for local trips. The community strongly supports this project, and it is an essential component in supporting land redevelopment in the area and realizing the vision of the 2012 *Kensington Sector Plan*.

While the project is in the CIP, final design, land acquisition, and construction will begin after fiscal year 2030. Additional funding for the project would allow the project to move forward more quickly.

Bicycle-Pedestrian Priority Area—Wheaton Central Business District (CBD)

This project funds the design and construction of bicycle and pedestrian capital infrastructure in Downtown Wheaton. While this project could fund a variety of improvements, two specific improvements are recommended:

- Blueridge Avenue Separated Bike Lanes: The 2018 *Bicycle Master Plan* identified separated bike lanes on both sides of Blueridge Avenue, providing an east-to-west connection between Amherst Avenue and Grandview Avenue. This project is a Tier 1 priority in the *Bicycle Master Plan*.
- Grandview Avenue Separated Bike Lanes: The 2018 *Bicycle Master Plan* also identified separated bike lanes on both sides of the road along Grandview Avenue, providing a north-to-south connection between Reedie Drive and Blueridge Avenue. This project is a Tier 1 priority in the *Bicycle Master Plan*.

Further funding of the Downtown Wheaton BiPPA would allow additional bicycle and pedestrian improvements in the area, allowing for a larger network of safe and comfortable facilities for non-motorized users, while also supporting land redevelopment and revitalization in Downtown Wheaton.

Bicycle-Pedestrian Priority Improvements—Downtown Silver Spring

The Bicycle-Pedestrian Priority Improvements has funded multiple improvements in Downtown Silver Spring. Additional funding should be included for the BiPPA to advance other projects, including the 13th Street/Burlington Avenue and East-West Highway Separated Bike Lanes. These separated bicycle lanes would help build out a network of safe and comfortable cycling facilities in Silver Spring, particularly on the west side of the CSX rail line.

- 13th Street/Burlington Avenue Separated Bike Lanes on both sides of 13th Street/Burlington Avenue between Eastern Avenue and Fenton Street
- East-West Highway Separated Bike Lanes between 16th Street and Georgia Avenue

Bicycle-Pedestrian Priority Area Improvements—Purple Line

The Bicycle-Pedestrian Priority Area Improvements—Purple Line funds improvements to bicycle and pedestrian facilities within one-half mile of future Purple Line stations. Two projects would provide direction connections to the Capital Crescent Trail and the Lyttonsville Purple Line station:

- Lyttonsville Place Separated Bike Lanes: This project would construct two-way separated bike lanes on the east side of Lyttonsville Place, between Brookeville Road and Lyttonsville Road. This project is a Tier 1 priority in the 2018 *Bicycle Master Plan*.
- Brookville Road Sidepath: As recommended in the 2018 *Bicycle Master Plan*, this project would complete the Brookville Road sidepath by filling gaps on both ends of the recently constructed segment fronting Woodlin Elementary School. The anticipated CSX bridge replacement will extend the sidepath slightly. This project would continue southwest to Stewart Avenue, connecting to the Capital Crescent Trail and the Lyttonsville Purple Line station. The sidepath would be extended northeast to Seminary Road, providing access to Montgomery Hills Neighborhood Park.

Cherry Hill Road Bike Facility

This project would construct two-way separated bike lanes along the south side of Randolph Road and Cherry Hill Road from Old Columbia Pike to the Montgomery/Prince George's County line, as recommended in the 2018 *Bicycle Master Plan*.

This vital improvement provides a safe and comfortable facility along a critical corridor for both Montgomery and Prince George's County. It also helps to support redevelopment of the area, including the Viva White Oak development area, the Adventist Healthcare White Oak Medical Center, and the FDA campus.

While state funding has already been provided for planning, design, and construction of the project, it is insufficient to construct the facilities for the entire length. Additional funding will help fill the funding gap and allow construction to be completed.

US-29 BRT Corridor Combined BiPPA (South)

This project would establish a new funded BiPPA along the US-29 corridor between New Hampshire Avenue and Randolph Road. Seven BiPPAs identified in the 2023 *Pedestrian Master Plan* would be combined into one larger BiPPA area for pedestrian and bicycle improvements:

- Columbia Pike: New Hampshire Avenue to Cherry Hill Road
- Old Columbia Pike: Columbia Pike to East Randolph Road
- New Hampshire Avenue: White Oak Town Center to Hillandale Town Center
- White Oak Town Center
- Downtown Life Sciences / FDA Village
- Tech Road Park and Ride
- Rolling Acres

The combined BiPPA would help support funding improvements to US-29 Flash Stations, address several high-injury network roads, and provide improvement connections throughout the area to further support the Viva White Oak development.

US-29 BRT Corridor Combined BiPPA (North)

This project would establish a new funded BiPPA along the US-29 corridor between Randolph Road and Greencastle Road. Eleven BiPPAs identified in the 2023 *Pedestrian Master Plan* would be combined into one larger BiPPA area for pedestrian and bicycle improvements:

- Columbia Pike: Sandy Spring Road to I-200
- Columbia Pike: I-200 to Cherry Hill Road
- Old Columbia Pike, Tech Road: Fairland Road to Briggs Chaney Road
- Briggs Chaney Road: Briggs Chaney Town Center to Prince George's County Line
- Old Columbia Pike: East Randolph Road to Fairland Road
- Edgewood
- Avonshire
- Old Columbia 200
- St. Mark's Neighborhood
- Verizon West
- Perrywood

The combined BiPPA would help support funding improvements to US-29 Flash Stations and help address several high-injury network roads.

Germantown Area Combined BiPPA

This project would establish a new funded BiPPA in the Germantown area. Five BiPPAs identified in the 2023 *Pedestrian Master Plan* would be combined into one larger BiPPA area for pedestrian and bicycle improvements:

- Crystal Rock Drive: Germantown Town Center to Germantown Town Center
- Germantown Town Center

- Department of Energy West
- Department of Energy
- Gunners Lake

The combined BiPPA would help support funding improvements throughout the Germantown area, address several high-injury network roads, and help support redevelopment in the area.

Lighting of the Capital Crescent Trail (Bethesda to Silver Spring)

The Capital Crescent Trail is one of the premier trails in the region, providing regional access and recreation opportunities. The ongoing trail construction project provides lighting at underpasses and junctions as well as conduit for continuous lighting along the full trail. This proposed project, focused on the segment between Bethesda to Silver Spring, would light the rest of the trail. It would build on the investment the county has already made in the trail to improve access to Red Line and Purple Line stations at night, while improving safety and security.

Chapter 1: Introduction

The 2025 Travel Monitoring Report contains a compilation of the agency's transportation-related monitoring activities and is required by the Growth and Infrastructure Policy. As with each edition of the report, the report strives to explore and leverage new transportation datasets and analytical tools that help provide a clearer vision of how the county is meeting its transportation goals, objectives, and metrics as defined in *Thrive Montgomery 2050*, the *Bicycle Master Plan*, and the *Pedestrian Master Plan*.

The report includes an executive summary and several chapters. Chapter 2 provides a general overview of travel trends in the county. Chapter 3 focuses on the *Thrive Montgomery 2050* Growth corridors, summarizing performance metrics for each corridor, including Non-Auto Driver Mode Share (NADMS), Average Commute Time, and Roadway Congestion. Chapters 4 and 5 are centered on progress made to support goals and objectives of the *Bicycle Master Plan* and *Pedestrian Master Plan*, respectively.

Chapter 2: Travel Trends

This section summarizes general roadway trends for Montgomery County over the past several years.

Vehicular Travel

Traffic Volume

Traffic volume data collected by Maryland State Highway Administration (SHA) permanent counters on interstate routes in the DC region show that traffic volumes on interstates declined during the COVID-19 pandemic and have slowly rebounded over the last five years. Volumes on I-270 have returned to pre-pandemic levels, while I-495 continues to experience a slightly lower traffic volume relative to pre-pandemic levels. Specifically, I-270 south of MD 121 experienced a modest growth of 2% over the period, with a slight uptick of 2.5% from 2022 to 2024. Conversely, traffic volumes on I-495 at Persimmon Tree Road and west of MD 650 declined by approximately 8–9% from 2019 to 2024, indicating a decrease in overall traffic on these segments.

Despite minor fluctuations, the total daily traffic across all monitored routes decreased by about 5% from 2019 to 2024, though there was a small increase of 2.7% between 2022 and 2024. This suggests that while some segments have seen sustained reductions in volume following the COVID pandemic, overall traffic levels on regional interstates have remained relatively steady, with slight growth in certain areas over the last few years.

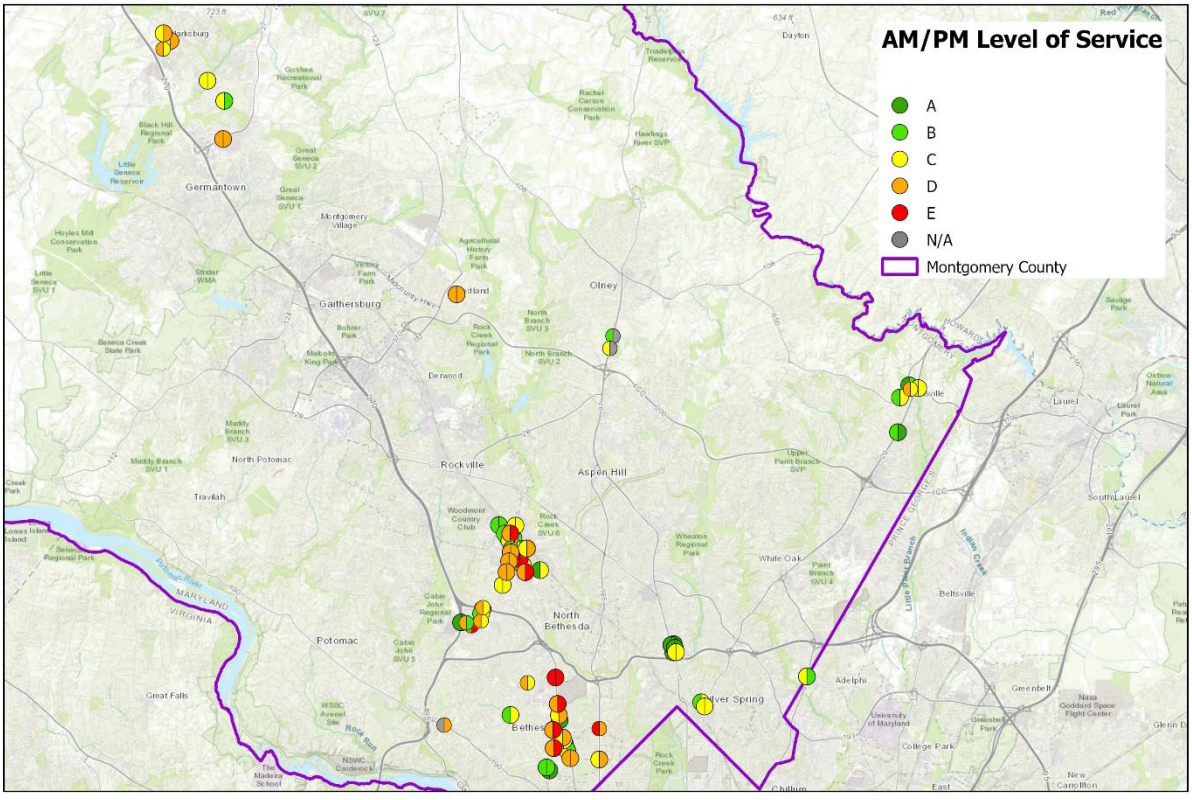
Intersection Level of Service

Intersection delay and level of service (LOS) data are collected for a number of purposes throughout the county, including to support Local Area Transportation Review (LATR) efforts, to use in monitoring reports for specific areas, and to understand existing conditions for master plans. The Highway Capacity Manual delay-based level of service standards used for the LATR vary by policy area.

LOS measures a driver's experience on the road and at intersections, based on the speed and number of cars using the road. The LOS of a road is designated by a letter grade from A to F, with A representing free flow and F representing gridlock. The county tolerates higher levels of traffic congestion in areas with more access to high-quality transit, walking, and bicycling. Figure 5 provides an overview of the level of service data collected between 2023 and 2024 as part of monitoring report required by certain master plans, ongoing master plans, and development projects.

The data demonstrate that there is more congestion in more urbanized areas, particularly in and around Bethesda. The complete table can be found in Chapter 1 of Appendix A.

Figure 5: Level of Service Data at Selected Intersections in Montgomery County



Source: Transportation Planning Department analysis using LATR Reports and 2024 Bethesda Annual Monitoring Report

Transit Travel

Transit ridership in Montgomery County continues to recover to pre-pandemic levels, though at varied rates across bus and rail.

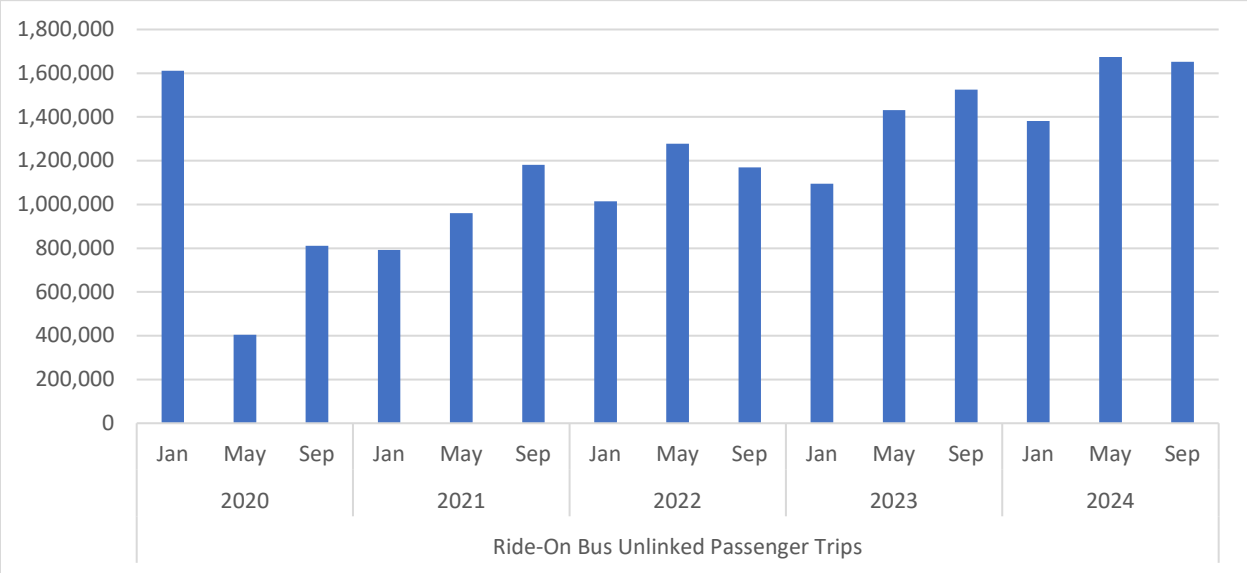
Ride On and Metrobus

Following steep declines at the onset of the COVID-19 pandemic, both Ride On and Metrobus have experienced steady increases in riders over the past several years. As of November 2024, unlinked passenger trips on Ride On were 4% higher than January 2020 levels, while Metrobus ridership exceeds pre-pandemic volumes by almost 10%. Service availability, as measured by vehicle revenue miles, saw a dramatic drop and rebound in 2020, followed by incremental growth in the years since. Ride On is now approaching January 2020 levels, and Metrobus service has consistently remained at or above pre-pandemic benchmarks since May 2022.

Ride On

Figure 6 shows the number of unlinked passenger trips on Montgomery County's Ride On bus system from 2020 to 2024. Ridership experienced a sharp decline in 2020 following the onset of the COVID-19 pandemic, dropping from about 1.6 million trips in January to approximately 400,000 in May. Since then, there has been a steady and consistent recovery in bus usage, with passenger trips increasing each year. By 2023, ridership had returned to over 1.4 million monthly trips and continued to grow into 2024, reaching nearly 1.7 million in both January and May.

Figure 6: Ride On Bus Unlinked Passenger Trips



Source: FTA National Transit Database, https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release

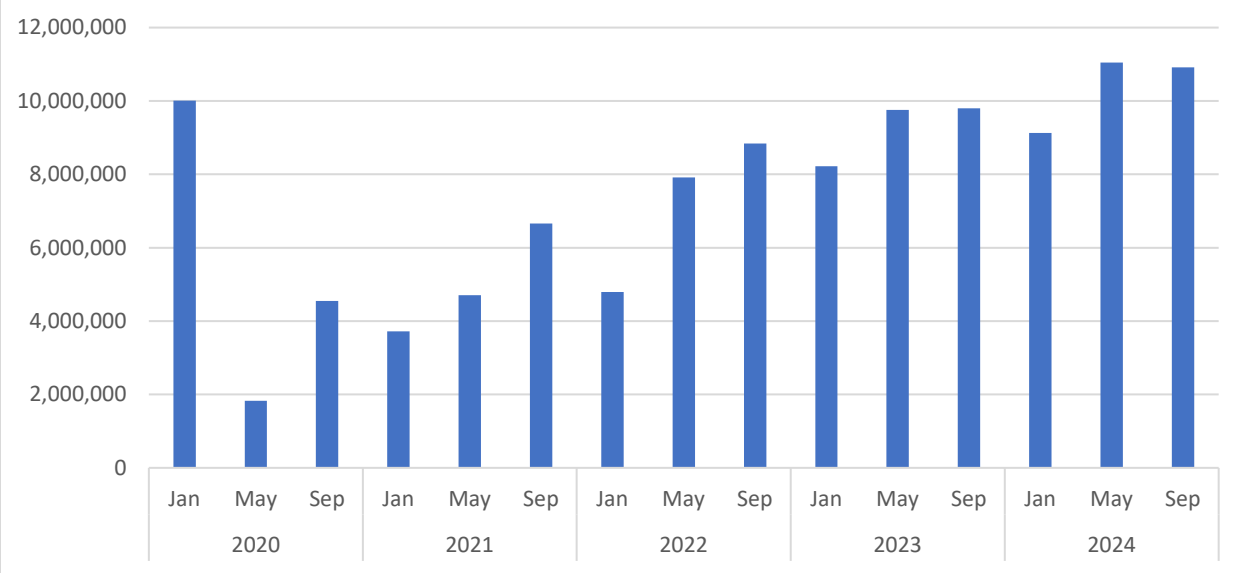
Metrobus

Figure 7 illustrates Metrobus unlinked passenger trips from 2020 to 2024. Ridership began at approximately 10 million trips in January 2020 but dropped dramatically to under 2 million in May

2020 due to the COVID-19 pandemic. A gradual recovery followed, with consistent growth in ridership across subsequent years.

By 2022, monthly ridership reached around 8 to 9 million trips, and by 2023, numbers returned to nearly 10 million. In 2024, Metrobus ridership surpassed pre-pandemic levels, reaching over 11 million trips in both May and September. The trend demonstrates a strong and steady recovery, culminating in record-high ridership by 2024.

Figure 7: Metrobus Unlinked Passenger Trips



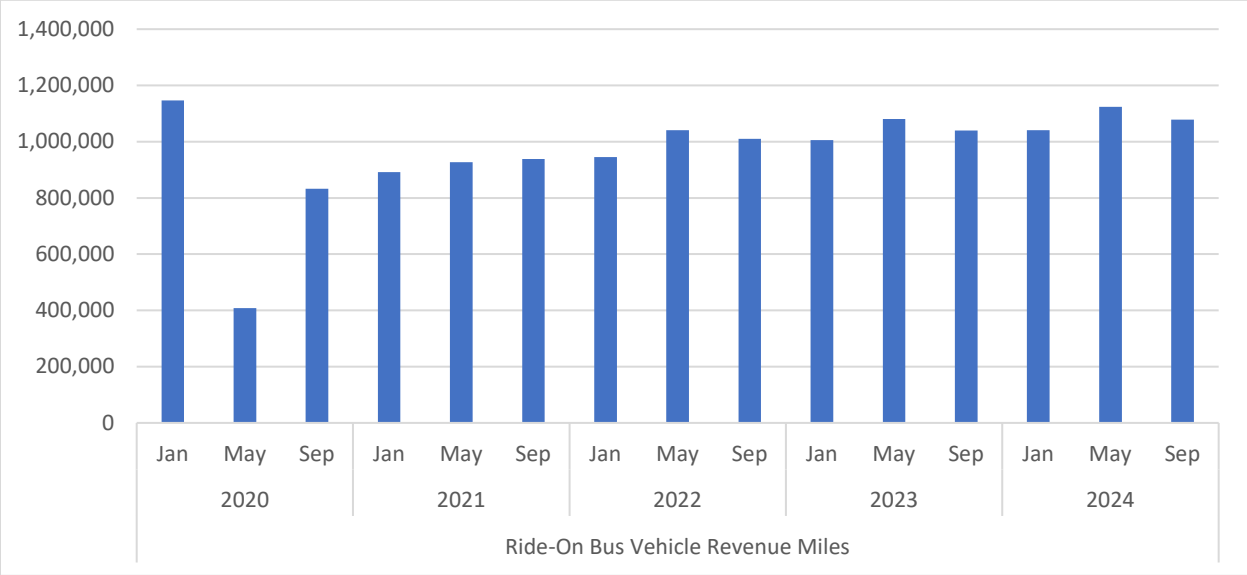
Source: FTA National Transit Database, https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release

Ride On Vehicle Revenue Miles

Figure 8 displays the Vehicle Revenue Miles (VRM) for Montgomery County's Ride On Bus service from January 2020 through September 2024. The data show a significant drop due to the COVID-19 pandemic, with VRM falling from over 1.1 million in January 2020 to around 400,000 miles in May 2020. After that low point, service steadily recovered through 2021 and into 2022, returning to pre-pandemic levels of about 1 million miles per period by early 2022.

From 2022 onward, VRM levels remained relatively stable with slight seasonal fluctuations. The highest recent levels are observed in May 2024, approaching 1.1 million miles. Overall, the chart illustrates a clear recovery and stabilization in bus service following the disruption in 2020, indicating a return to consistent operations by 2022 and modest growth through 2024.

Figure 8: Ride On Vehicle Revenue Miles



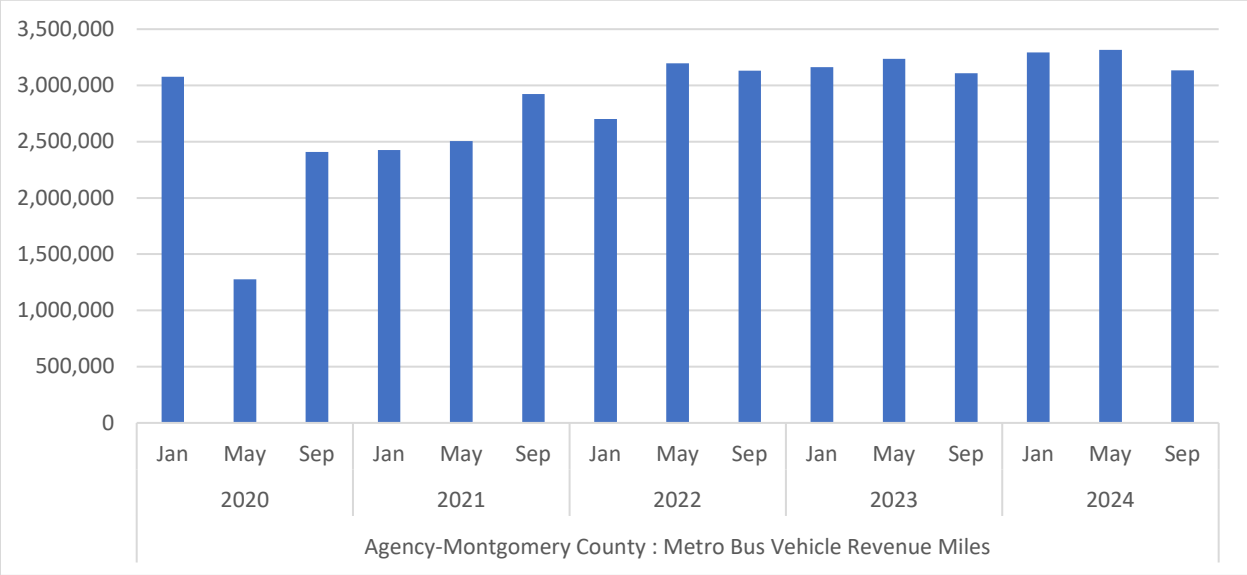
Source: FTA National Transit Database, https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release

Metrobus Vehicle Revenue Miles

Figure 9 displays Metrobus VRM in Montgomery County from 2020 to 2024. VRM dropped sharply in May 2020—likely due to pandemic-related service reductions—before gradually recovering over the following years. From a low of around 1.3 million miles in May 2020, service levels rebounded to about 2.5 million by September 2021.

By 2022, VRM steadily increased and generally remained above 3 million miles per month through 2023 and 2024, indicating a sustained restoration and expansion of service. The highest recorded VRM occurred in May 2024, at just over 3.3 million miles. This trend reflects not only a return to pre-pandemic service levels but a potential increase in service coverage or frequency in recent years.

Figure 9: Metrobus Vehicle Revenue Miles

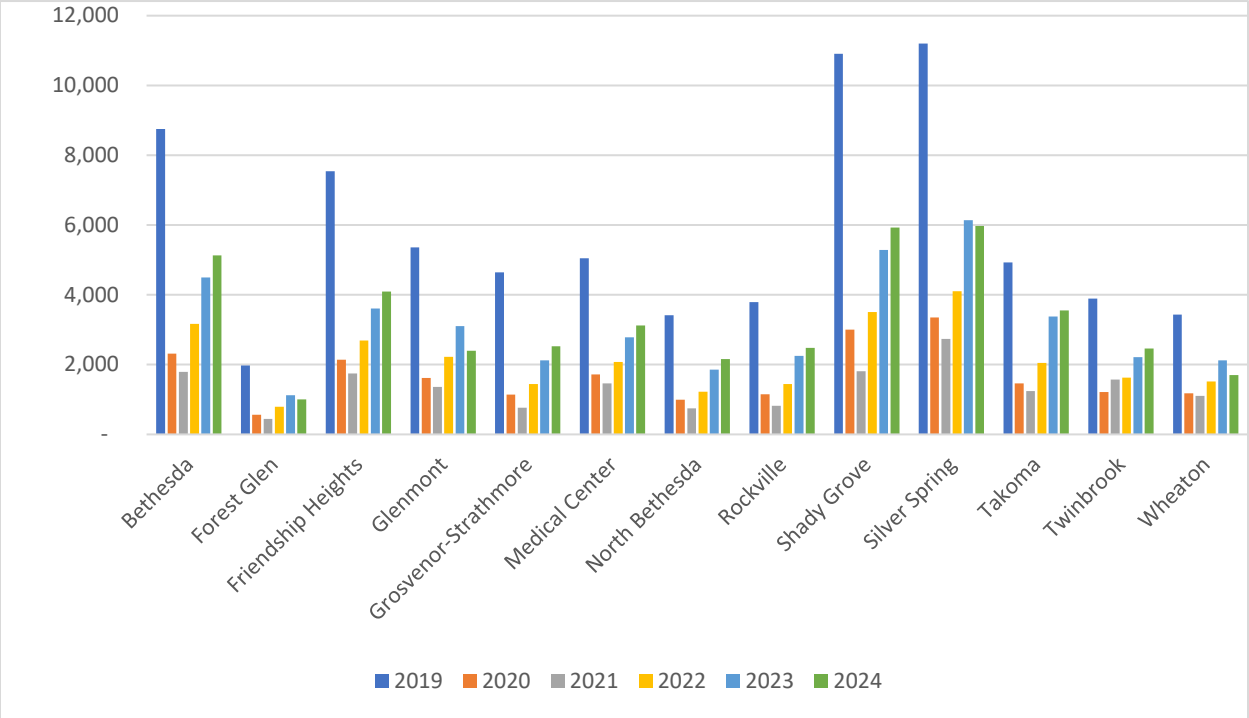


Source: FTA National Transit Database, https://www.transit.dot.gov/ntd/data-product/monthly-module-raw-data-release

Metrorail Ridership

Metrorail passenger entries in Montgomery County remain below pre-pandemic levels, though they have improved year to year (Figure 10). As of 2024, average weekday entries at Red Line stations remain approximately 40% below 2019 levels. Recovery has been relatively consistent across the corridor with exceptions due to Red Line construction in 2024 on Glenmont, Wheaton, Forest Glen, Silver Spring, and Takoma stations, where slowed growth or declines were noted.

Figure 10: Metrorail Average Daily Entries



Source: WMATA Ridership Date Portal, https://www.wmata.com/initiatives/ridership-portal/

Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) measures the number of miles traveled by vehicles and is based on how many vehicle trips are taken and the distance of those trips. As part of the ongoing effort to move beyond vehicle level of service (LOS) metrics, Montgomery County Planning, in coordination with MCDOT, has continued to research ways to incorporate VMT into transportation impact analysis and monitoring. Focusing on VMT allows us to measure the impacts of driving as well as the environmental consequences of land uses and transportation network decisions rather than focusing on delay to drivers, as traditional LOS measures do.

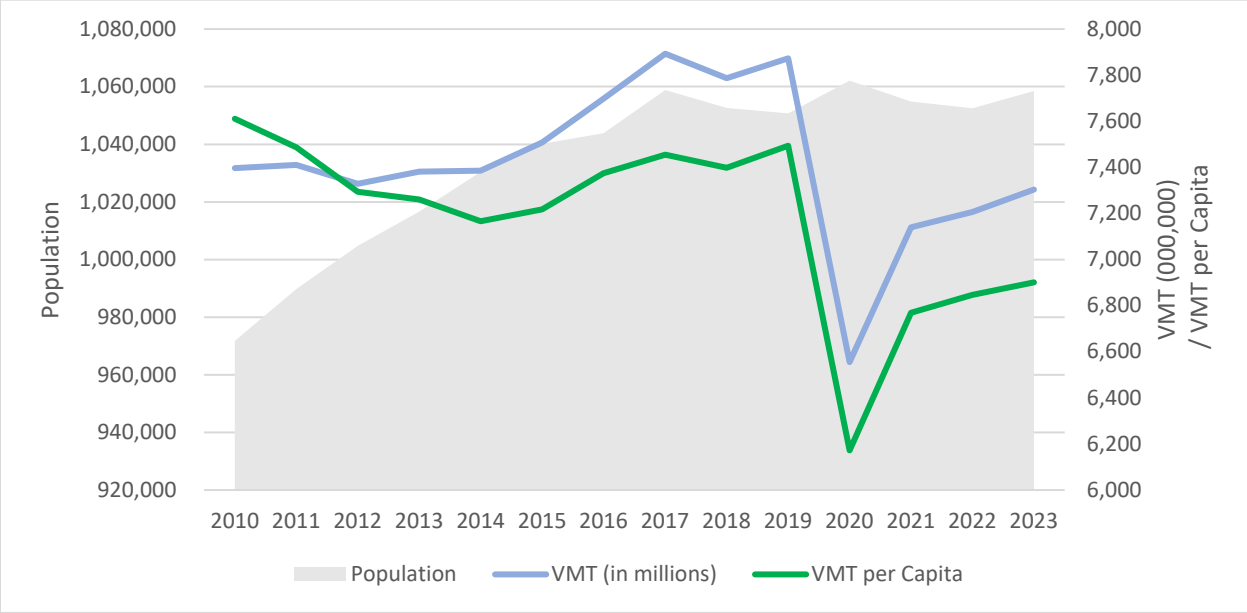
Through the Metropolitan Washington Council of Government's (MWCOG's) Transportation Land-Use Connections program, the Planning Division began to evaluate how to transition the transportation impact analysis for new developments from a trip-based to a VMT-based assessment. The project included developing a tool to estimate average daily VMT based on the location and land-use type. A review of other jurisdictions throughout the nation using VMT as a measure of transportation impacts helped inform the project. In addition, the project explored how VMT could be incorporated into county processes like Adequate Public Facilities, Transportation Demand Management, and Impact Taxes.

Total Annual VMT, Annual VMT per Capita, and Population for Montgomery County

Between 2010 and 2019, Montgomery County's total annual VMT, VMT per capita, and population all showed a notable upward trend before beginning to level off around 2016. Total VMT increased from 2010 to a peak in 2018–2019, before experiencing a sharp decline in 2020 due to the COVID pandemic and a partial recovery in subsequent years.

VMT per capita initially declined from 2010 to 2013, suggesting reduced driving on a per-person basis. It then rose steadily through 2019, indicating increasing travel demand relative to population. The most significant change occurred in 2020, when VMT per capita dropped sharply, reflecting the widespread impacts of the COVID-19 pandemic, including reduced commuting and travel as well as increased telework. From 2020 to 2023, VMT per capita rebounded from a low of 6,172 miles per person to 6,901 miles per person, showing a returning demand for auto travel, although it remains below pre-pandemic peak of 7,493 miles per person.

Figure 11: Population, Annual Vehicle Miles Traveled (VMT), and Annual VMT per Capita for Montgomery County



Source: Population data from ACS, census data from U.S. Census Bureau, VMT data from https://roads.maryland.gov/mdotsha

Non-Auto Driver Mode Share (NADMS)

Non-auto driver mode share refers to the percentage of total average weekday commute trips made using transportation modes other than driving an automobile.[4] This includes walking, biking, taking public transit (such as buses and trains), being a passenger in a carpool or vanpool, using an emerging shared mobility option (e.g., rideshare, e-scooter), and teleworking. It is typically calculated as a proportion of all trips taken within a defined area or population over a specific time.

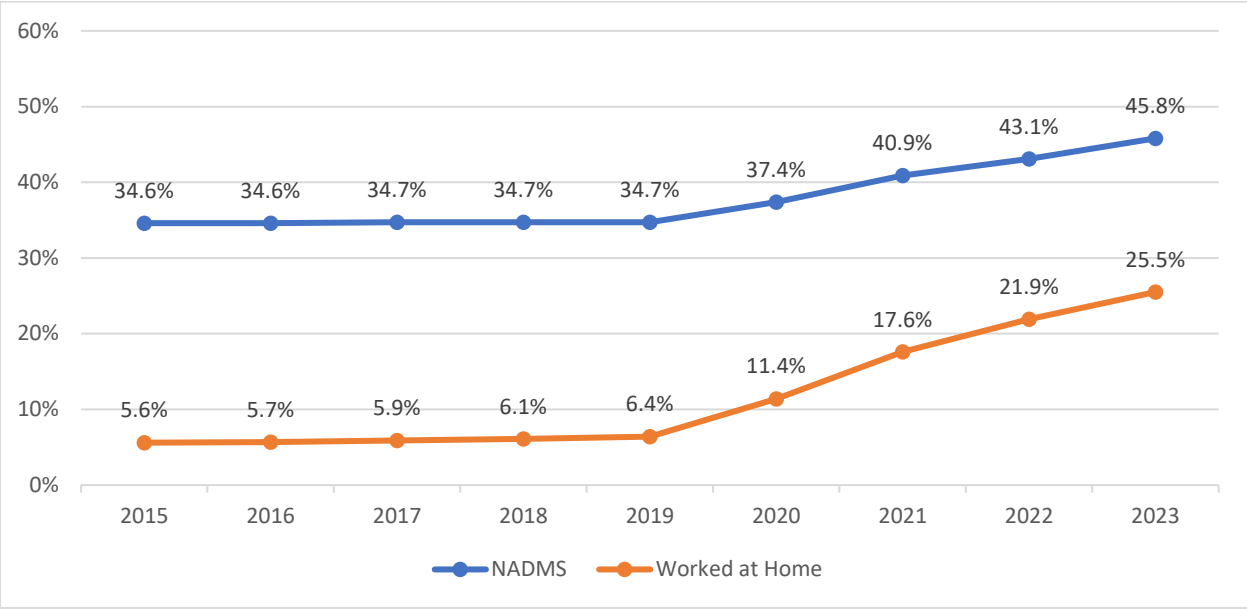
This metric is used by Montgomery County to evaluate progress toward transportation and sustainability goals. A higher non-auto driver mode share indicates greater reliance on alternative transportation options, which can help reduce traffic congestion, greenhouse gas emissions, and dependency on cars—especially important in urban areas seeking to improve livability and reduce environmental impacts.

During and after the COVID-19 pandemic, the prevalence of telework increased both nationally and in Montgomery County. Prior to 2020, NADMS remained relatively stable, averaging below 35%; this

[4] U.S. Census, American Community Survey 5-Year Estimate

percentage included residents who worked from home, which averaged below 6%. Since 2019, Montgomery County overall NADMS has risen by nearly 11 percentage points—from 34.7% to 45.8%—while the share of residents who telework has increased by 19 percentage points, from 6.4% to 25.5%.

Figure 12: Non-Auto Driver Mode Share (NADMS)



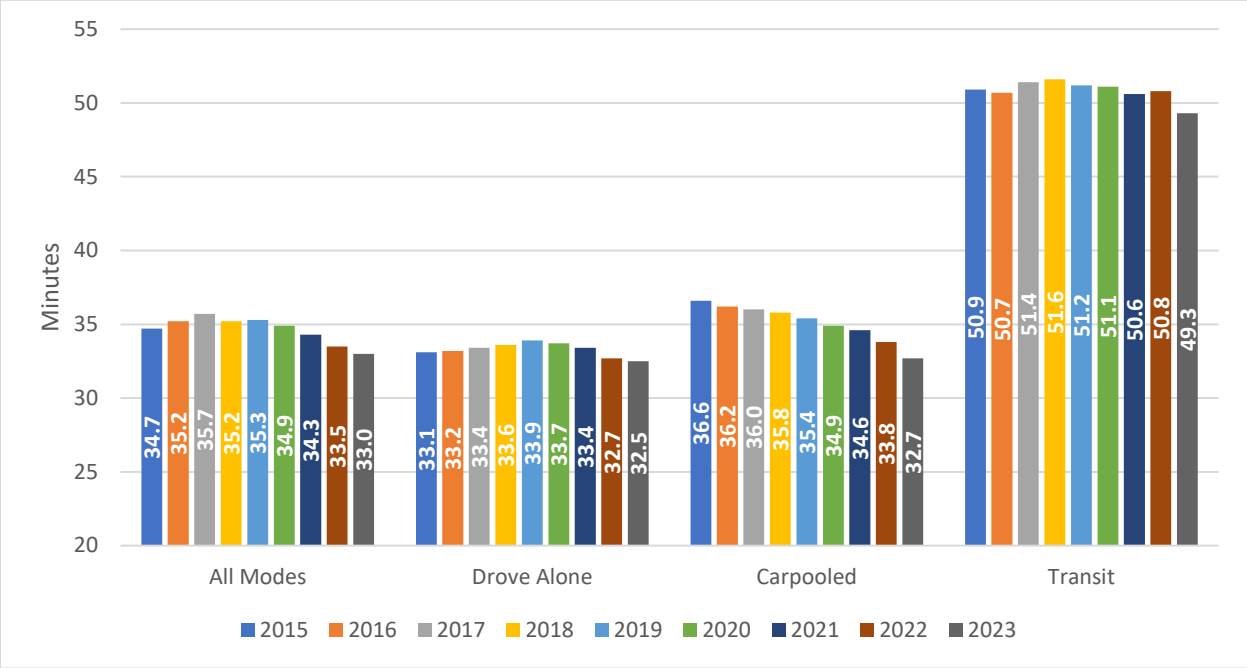
Source: ACS 5-Year Estimates, Table S0801, Means of Transportation to Work by Selected Characteristics for Montgomery County

Average Commute Time

From 2015 to 2023, average commute time in Montgomery County remained relatively stable across all travel modes, with a modest decline in recent years. Commute times for all modes hovered around 35 minutes prior to 2020, then gradually decreased to 33.5 minutes by 2023. Those who drove alone experienced similarly steady commute durations, dropping slightly from 33.1 minutes in 2015 to 32.5 minutes in 2023. Carpool commute times showed a more noticeable decline, falling from 36.6 minutes in 2015 to 32.7 minutes in 2023.

Transit users consistently experienced the longest commutes, averaging over 50 minutes throughout the period. While transit times remained high, they saw a slight decline from a peak of 51.6 minutes in 2018 to 49.3 minutes in 2023.

Figure 13: Average Commute Time for Auto and Bus Travel



Source: ACS 5-Year Estimates, Table S0804, Means of Transportation to Work by Selected Characteristics for Montgomery County

These trends highlight both the impact of external disruptions—such as the COVID-19 pandemic—on travel behavior and the persistent disparities in commute times between travel modes. While the data indicate a gradual recovery in overall travel demand and a sustained interest in alternative work arrangements like telework, significant differences remain in how long it takes residents to commute. Transit users consistently face much longer travel times than those who drive alone or carpool. This discrepancy raises important equity concerns, as those who rely on transit—often lower-income individuals and those who are unable to drive due to physical disability or age—must contend with longer, less efficient commutes.

FChapter 3: Thrive Growth Corridors

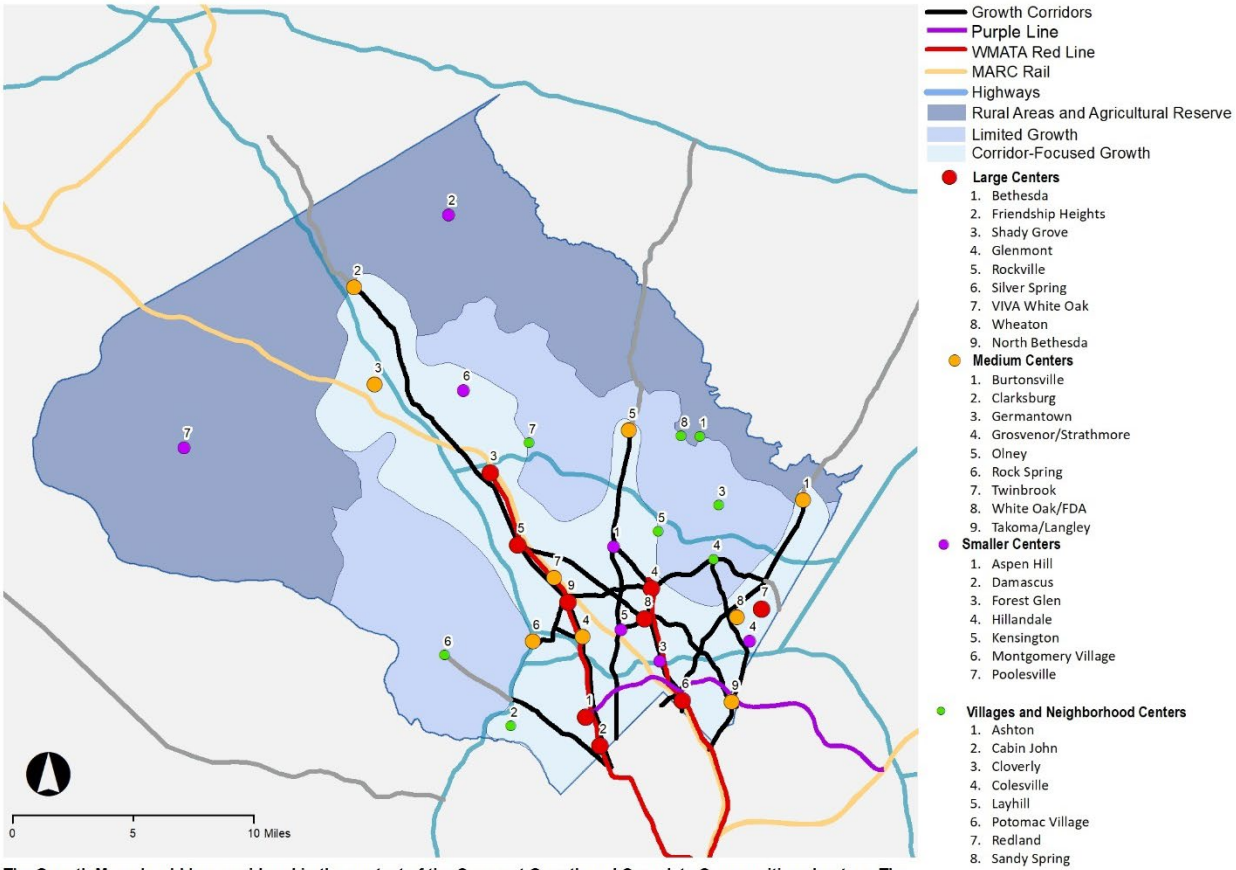
Background

On October 25, 2022, the Montgomery County Council approved *Thrive Montgomery 2050* (Thrive). Thrive is an update to the county's General Plan and serves as the policy foundation and framework moving forward. Thrive's framework is centered around achieving three overarching objectives: economic competitiveness, racial and social equity, and environmental sustainability. To support achieving these objectives, it includes recommendations organized into various chapters. Each chapter explains how its recommendations serve the broader objectives of Thrive and provides suggested measures to gauge progress in implementing the chapter's ideas. Below is a list of recommended transportation-related policies from Thrive's "Transportation and Communication Networks: Connecting People, Places, and Ideas" chapter.

- Develop a safe, comfortable, and appealing network for walking, biking, and rolling.
- Build a frequent, fast, convenient, reliable, safe, and accessible transit system.
- Adapt policies to reflect the economic and environmental costs of driving alone, recognizing that car-dependent residents and industries will remain.

A core tenet of Thrive is to focus growth along established corridors and activity centers. Thrive's Growth Map helps illustrate this principle (See Figure 14).

Figure 14: Thrive Montgomery 2050 Growth Map



The Growth Map should be considered in the context of the Compact Growth and Complete Communities chapters. The centers of activity shown are not exhaustive of all existing or potential centers. Some of the centers listed on the growth map are not subject to Montgomery County zoning authority.

The remainder of this chapter summarizes performance measures that aim to create a picture of how travel by driving, using public transit, cycling, and walking along the county's Growth Corridors is changing. The metrics that were selected are based on data that are easily collected from partner agencies or analysis that is repeatable using data that are collected within the Planning Department.

Thrive Growth Corridor Profiles

Thrive introduced the concept of Growth Corridors, which, in combination with Activity Centers, are intended to be the focus of future growth in the county. The following section contains several metrics organized according to the Growth Corridors identified in Thrive. The intent is to create corridor profiles that can be used by planners and other decision makers to quickly access general vehicle travel trends and show how each corridor is meeting the intent and vision articulated in the county's Complete Streets Design Guide (CSDG).

Complete Streets are roadways that are designed and operated to provide safe, accessible, and healthy travel for all users of our roadway system, including pedestrians, bicyclists, transit riders, and motorists. The CSDG provides policy and design guidance on the planning, design, and operation of roadways for all users. Below is a description of each metric presented on each corridor's infographic.

Travel Time Index

The Travel Time Index (TTI) is a measure of congestion that compares the amount of time it takes to travel during peak periods to the time it would take in free-flow, or uncongested conditions. It is calculated as the ratio of peak travel time to free-flow travel time.

TTI is useful because it provides a standardized and intuitive way to understand congestion from a traveler's perspective. Unlike measures that report on raw delay in minutes or vehicle hours, TTI accounts for the relative impact on trip duration, making it easier to compare across different routes, time periods, or regions. It's especially helpful in communicating congestion levels to the public and policymakers, as it frames the issue in terms of time lost rather than abstract traffic metrics.

A value of 1.6 indicates that a trip took 60% longer than if the roadway were congestion-free. For example, a 10-minute trip without congestion would take 16 minutes with congestion (10 minutes x 1.6 = 16 minutes). Complete TTI data for the Thrive Growth Corridors can be found in Chapter 2 of Appendix A.

Planned Bikeway Build-Out

Planned Bikeway Build-Out refers to the percentage of bikeways recommended in the *Bicycle Master Plan* fronting or adjacent to the Growth Corridor that are existing, under construction, or funded for construction, or are elements of an approved development project, such that:

- 100% = Full Build-Out
- 0% = No Build-Out

Pedestrian Pathway Comfort

Pedestrian Pathway Comfort refers to the percentage of pedestrian pathways, including sidewalks, sidepaths, trails, and low-traffic residential streets fronting the Growth Corridor that are rated Very Comfortable or Somewhat Comfortable by Montgomery County's Pedestrian Level of Comfort scoring system, such that:

- 100% = Completely Comfortable
- 0% = Completely Uncomfortable

Protected Crossing Spacing

Protected street crossings provide more safety and comfort for pedestrians and bicyclists because they include traffic-control devices that reduce or eliminate conflicts with motor vehicles. Protected Crossing Spacing is the average distance (feet) between protected street crossings for each street type. Protected Crossing Spacing Build-Out is the ratio of the average Protected Crossing Spacing divided by the target Protected Crossing Spacing for the street type as defined in Chapter 50 of the county code (Downtown Boulevards = 400 feet, Town Center Boulevards = 600 feet, Boulevards = 1,300 feet) for the Growth Corridor, such that:

- 1.0 = Target
- <1.0 = Exceeds Target

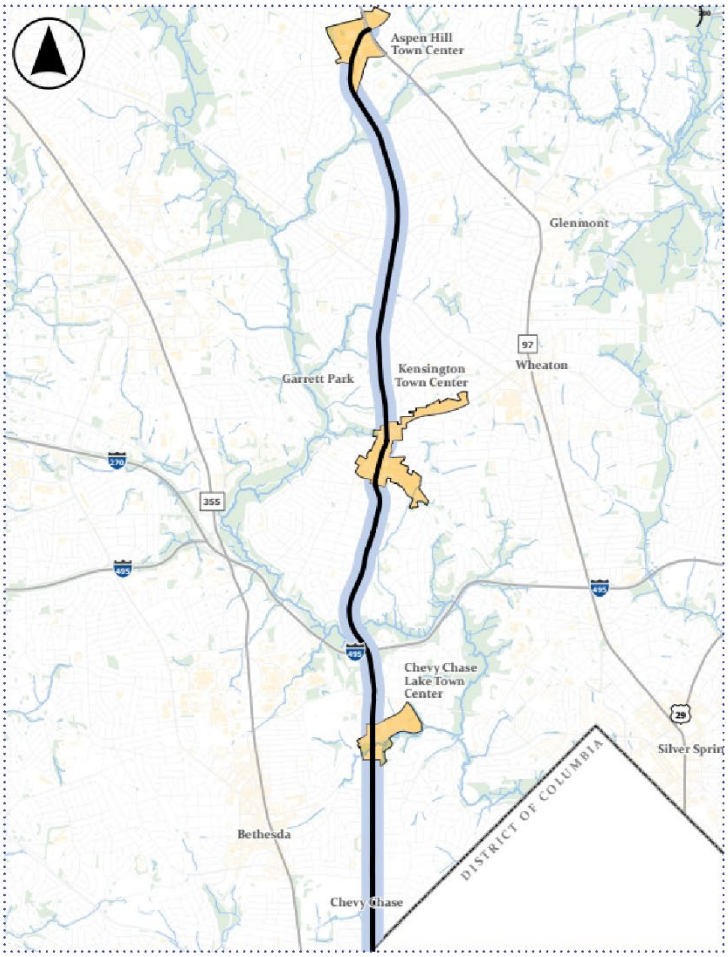
- >1.0 = Below Target

Street Grid Build-Out

A street grid is a pattern of intersecting roads that form a network of blocks and streets. This metric compares the desired number of blocks with the actual number of blocks within the Downtowns and Town Centers along the Growth Corridors. An area with a perfect grid of streets would have a ratio of 100%, whereas an area with half the desired blocks would have a ratio of 50% such that:

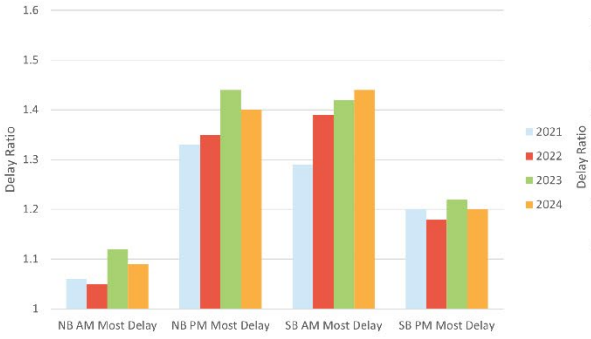
- 100% = Target
- >100% = Exceeds Target
- <100% = Below Target

Connecticut Avenue

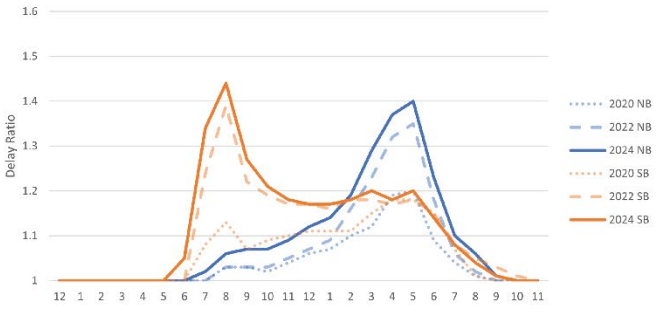


- Corridor
- Downtown
- Town Centers
- Sububan
- Industrial

Travel Time Index



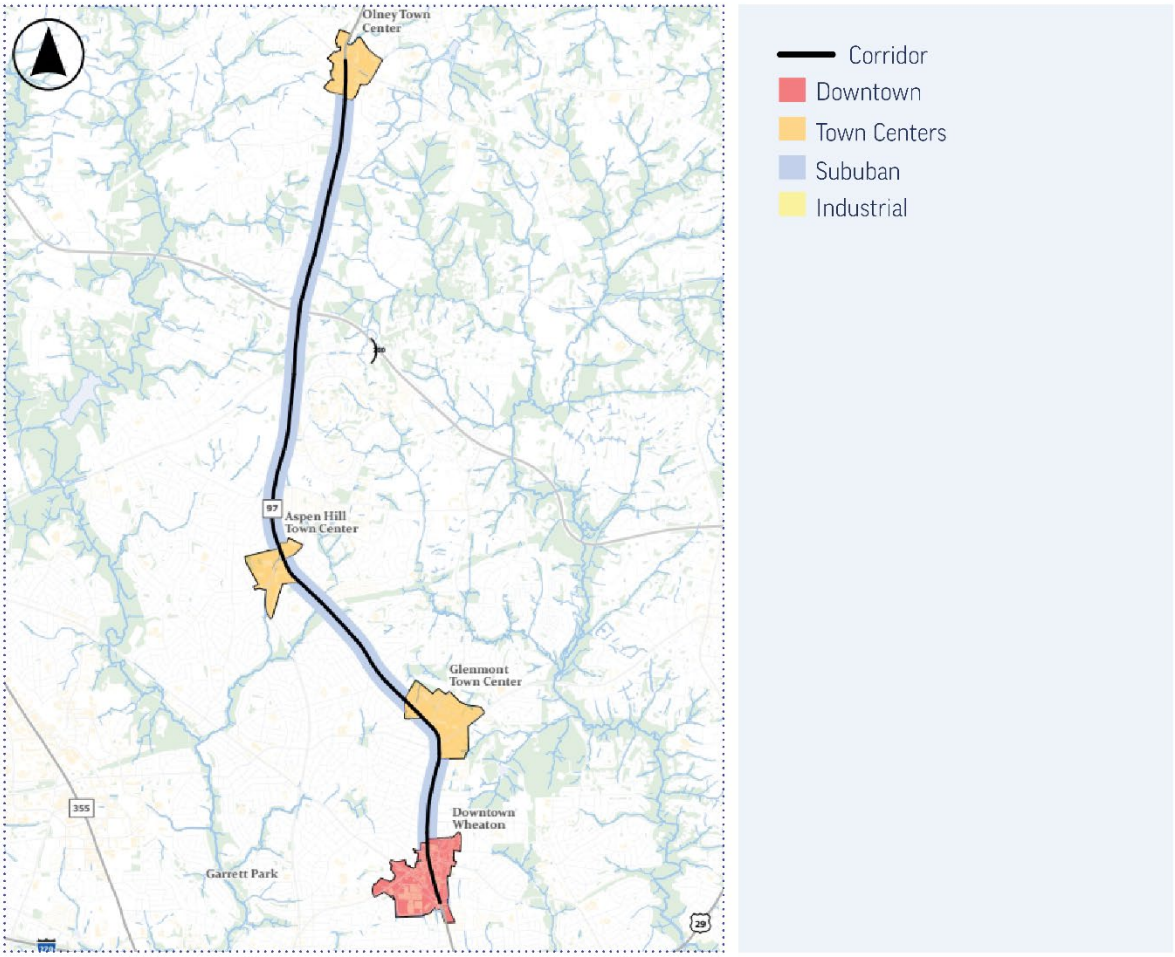
Average Daily Delay



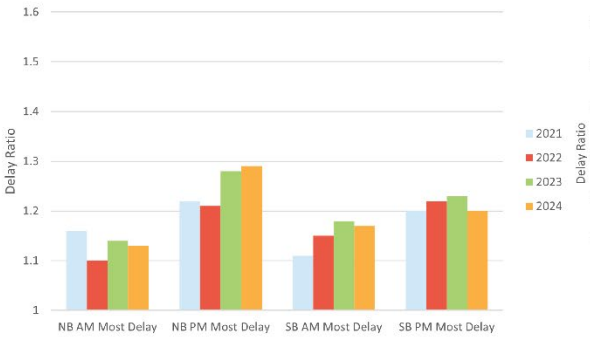
Connecticut Avenue Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Aspen Hill Town Center	0%	0%	2.3	29%
Suburban	0%	43%	1.5	N/A
 Kensington Town Center	0%	16%	1.2	153%
Suburban	11%	5%	1.5	N/A
 Chevy Chase Lake Town Center	24%	26%	1.7	56%
Suburban	0%	65%	1.0	N/A

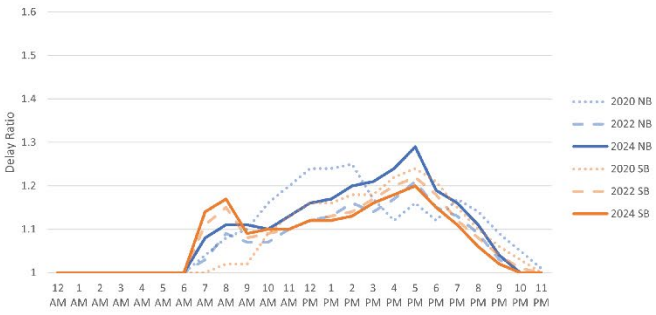
Georgia Avenue North



Travel Time Index



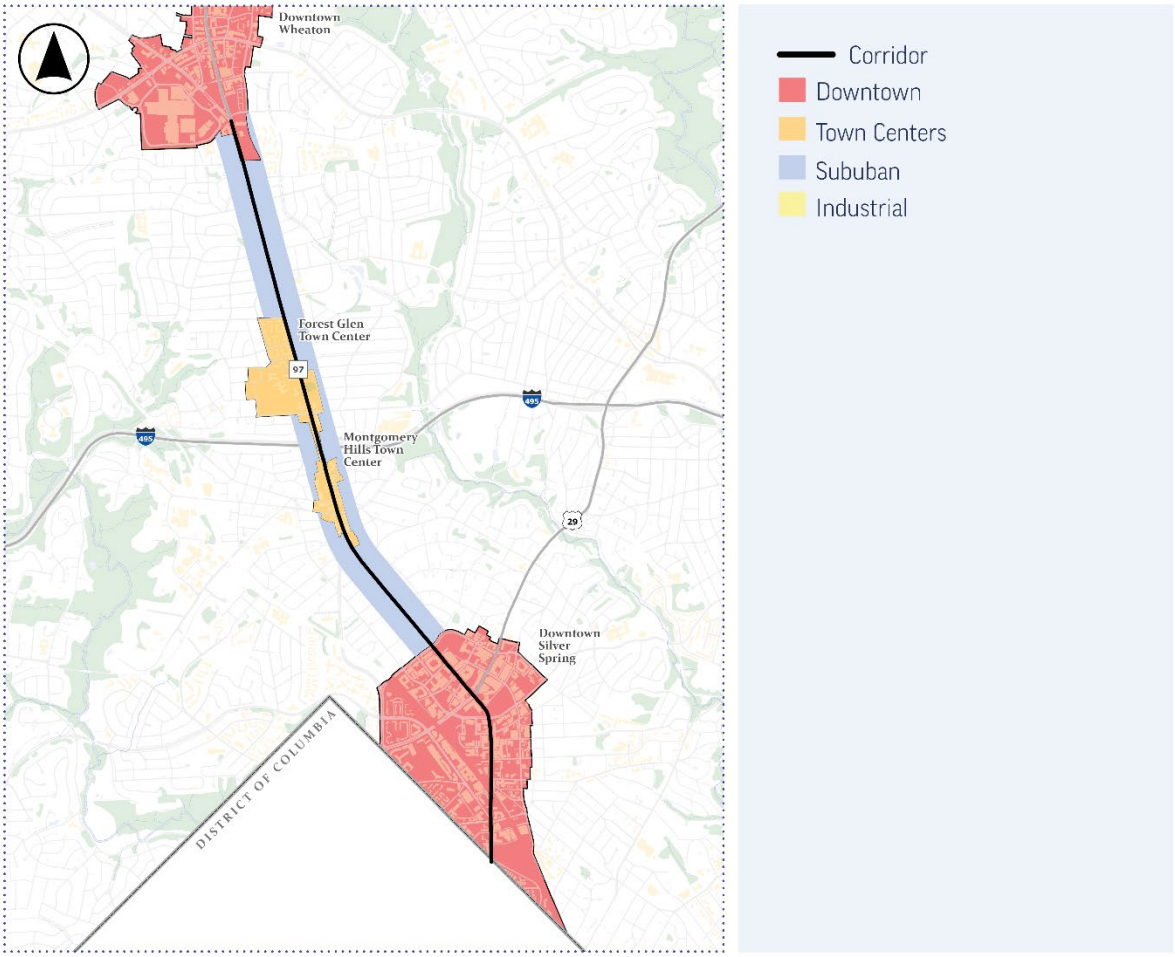
Average Daily Delay



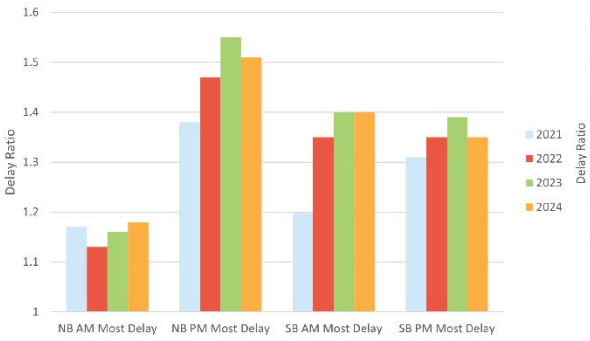
Georgia Avenue Growth Corridor North

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Olney Town Center	0%	5%	2.1	96%
Suburban	17%	15%	1.7	n/a
 Aspen Hill Town Center	0%	3%	2.3	29%
Suburban	8%	6%	2.4	n/a
 Glenmont Town Center	18%	24%	1.6	31%
Suburban	4%	34%	1.6	n/a
 Downtown Wheaton (North of Veirs Mill)	0%	69%	2.3	72%

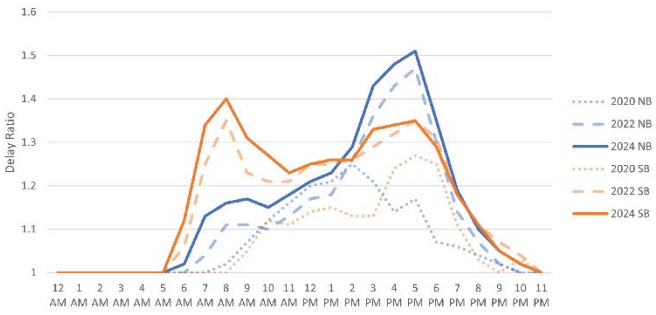
Georgia Avenue South



Travel Time Index



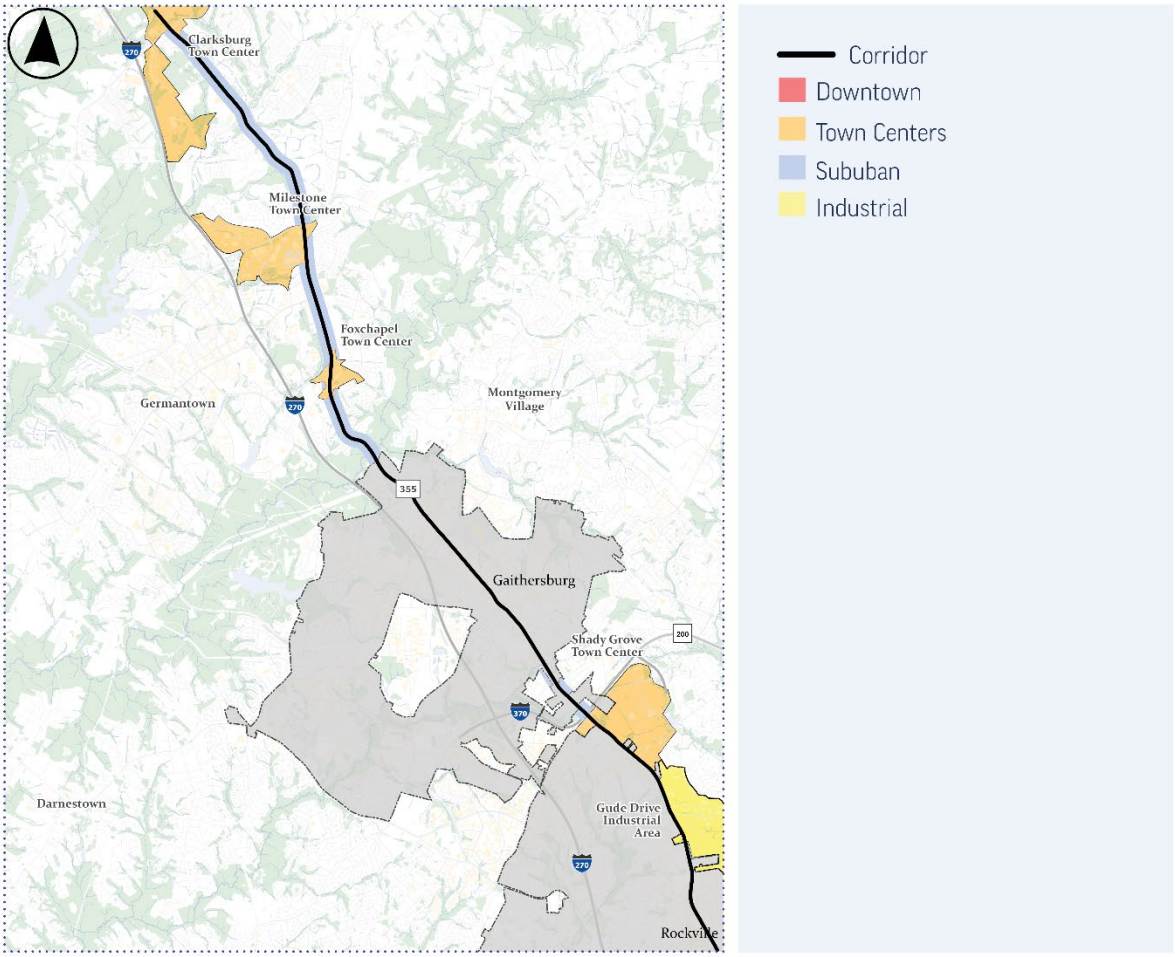
Average Daily Delay



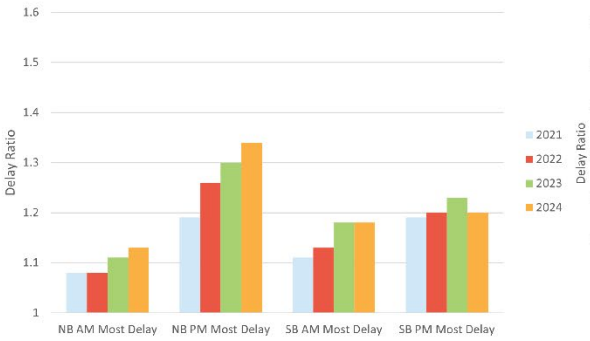
Georgia Avenue Growth Corridor South

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Downtown Wheaton (South of Veirs Mill)	7%	34%	4.3	72%
Suburban	10%	29%	1.0	n/a
 Forest Glen Town Center	31%	18%	2.2	105%
 Montgomery Hills Town Center	7%	22%	1.2	464%
Suburban	5%	5%	2.4	n/a
 Downtown Silver Spring	46%	94%	1.3	75%

MD 355 North



Travel Time Index



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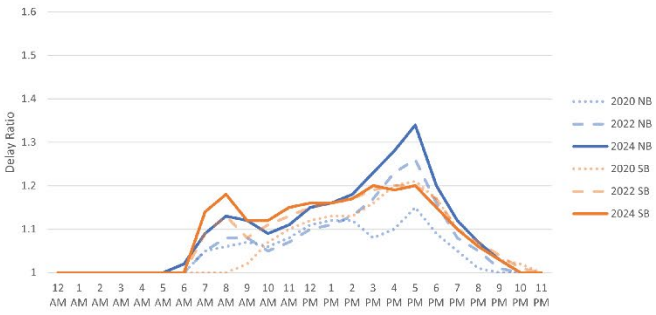
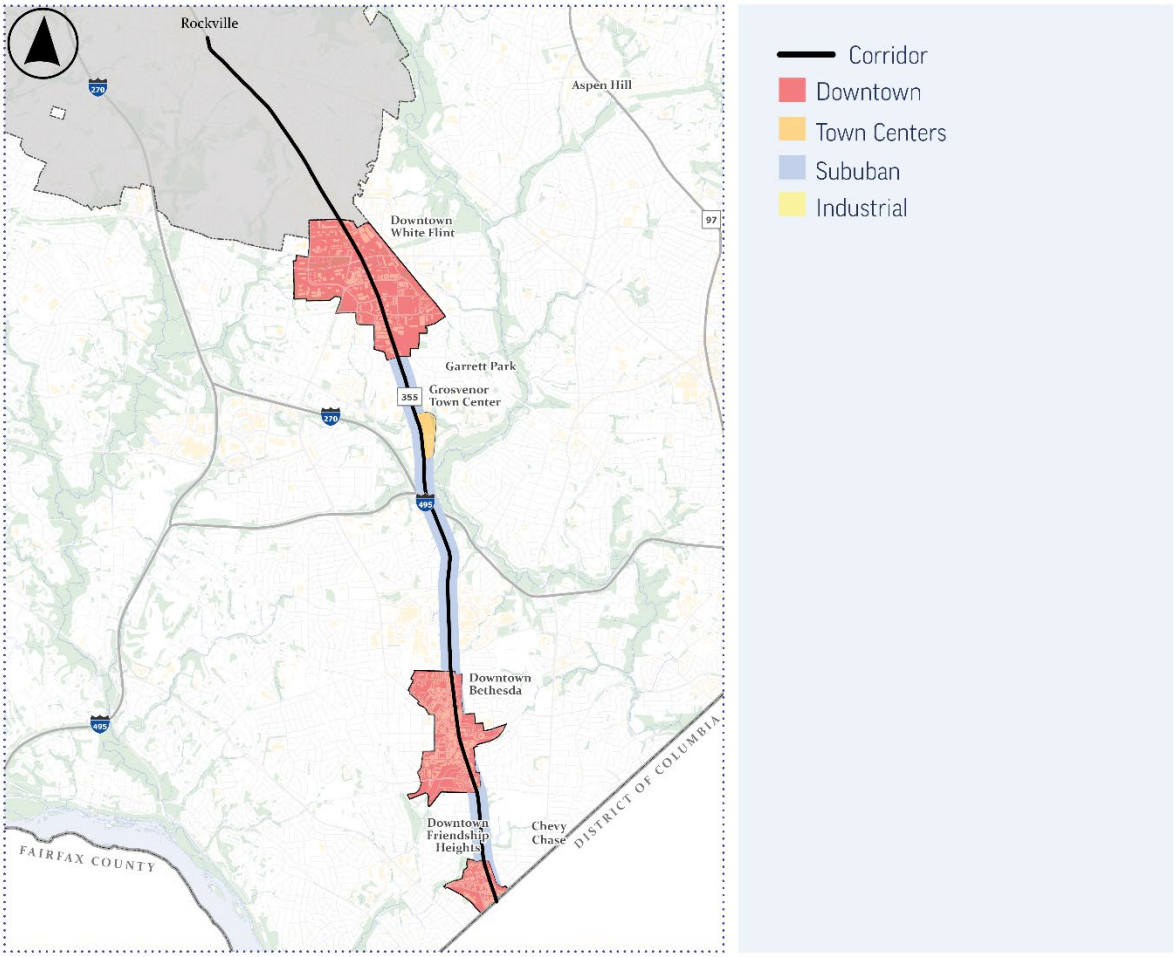


MD 355 Growth Corridor North

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Clarksburg Town Center	37%	21%	2.2	39%
Suburban	86%	13%	2.9	n/a
 Milestone Town Center	52%	0%	1.2	37%
Suburban	27%	15%	4.2	n/a
 Foxchapel Town Center	37%	0%	2.9	50%
Suburban	44%	24%	1.6	n/a
 Shady Grove Town Center	n/a	n/a	n/a	38%
Gude Drive Industrial	n/a	n/a	n/a	n/a

MD 355 South



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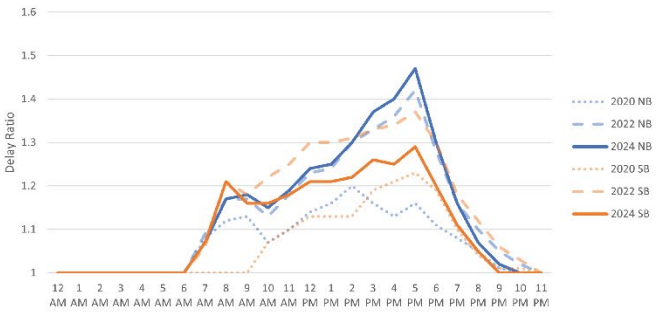
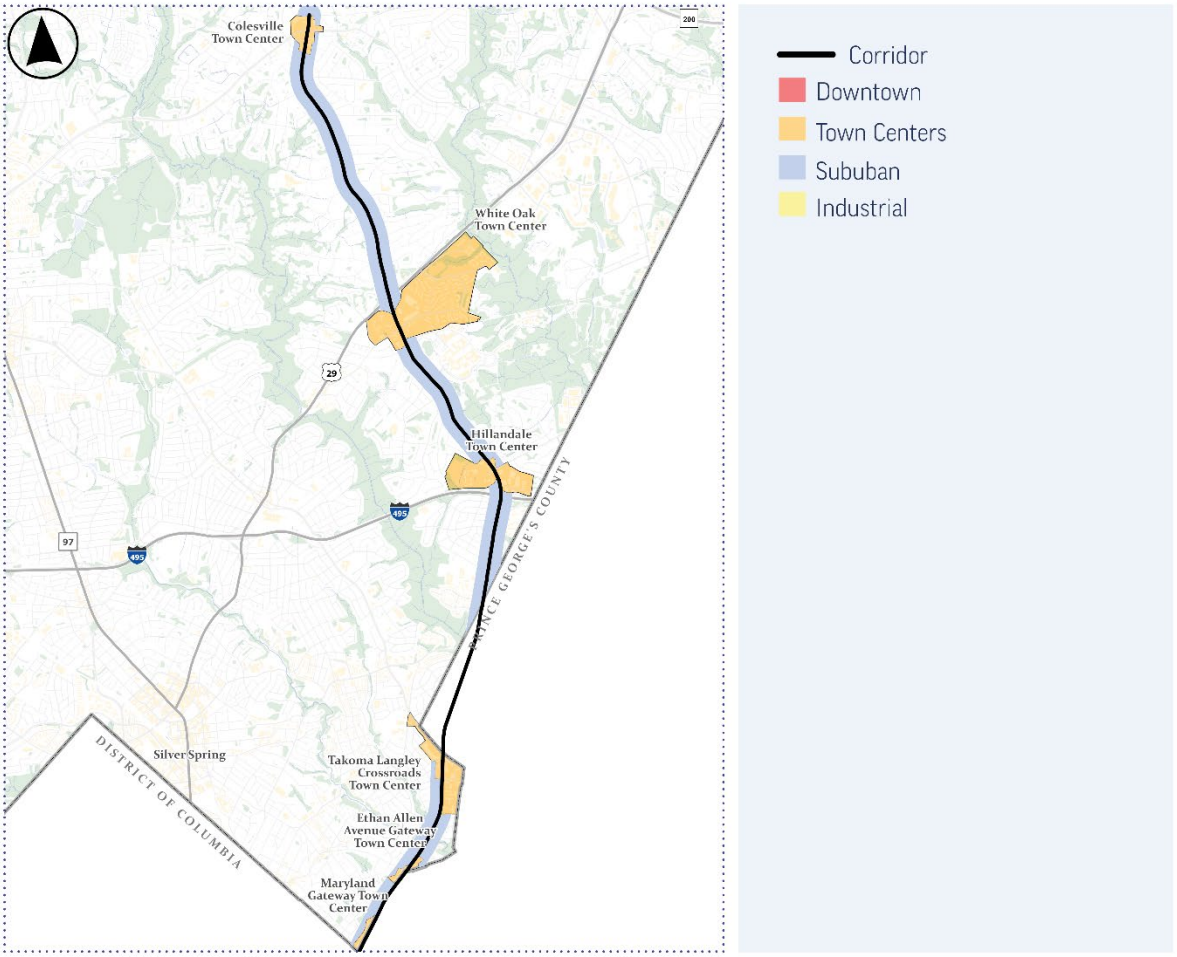


MD 355 Growth Corridor South

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Downtown North Bethesda	6%	18%	1.7	27%
 Grosvenor Town Center	n/a	n/a	n/a	52%
Suburban	28%	14%	1.2	n/a
 Downtown Bethesda	25%	80%	1.1	100%
Suburban	44%	53%	2.8	n/a
 Downtown Friendship Heights	0%	81%	1.2	47%

New Hampshire Avenue



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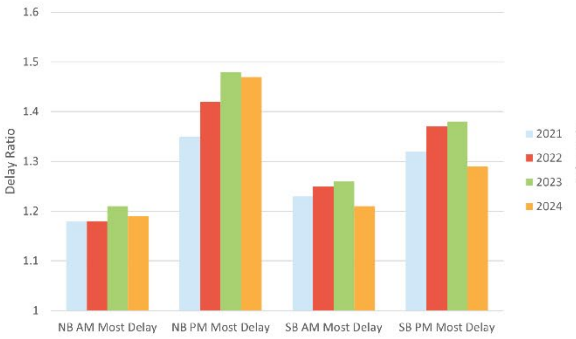

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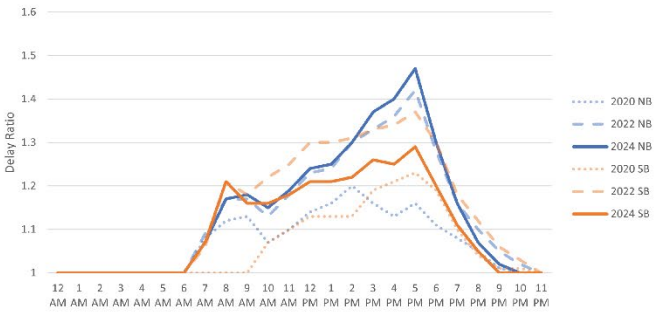


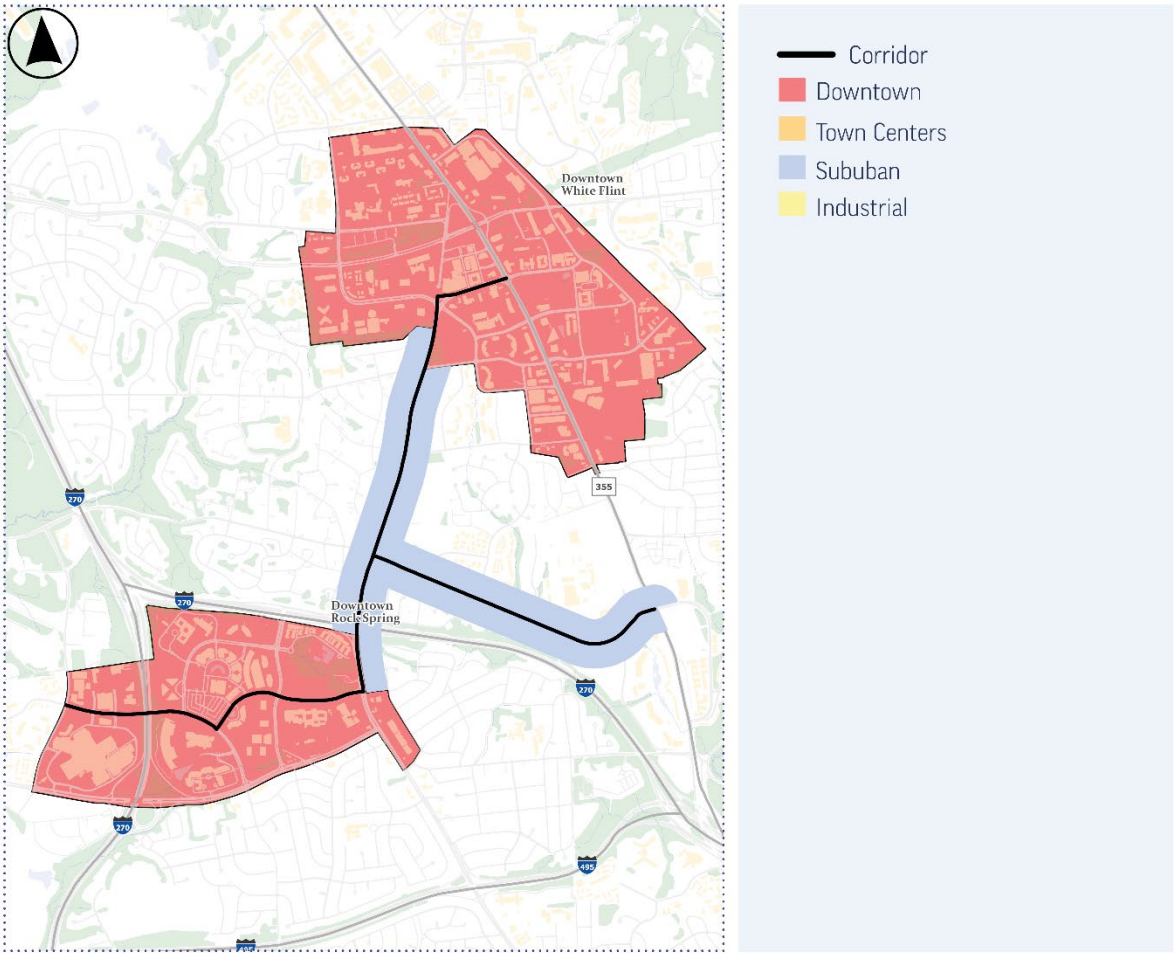
New Hampshire Ave Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Colesville Town Center	0%	0%	1.2	116%
Suburban	2%	4%	1.8	n/a
 White Oak Town Center	5%	13%	2.6	30%
Suburban	25%	26%	2.6	n/a
 Hillandale Town Center	13%	0%	0.9	25%
Suburban	0%	22%	1.2	n/a

New Hampshire Ave Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Takoma Langley Crossroads Town Center	0%	2%	1.0	62%
Suburban	5%	47%	0.6	n/a
 Ethan Allen Avenue Gateway Town Center	0%	17%	1.8	220%
 Maryland Gateway Town Center	0%	0%	n/a	122%

Old Georgetown Road



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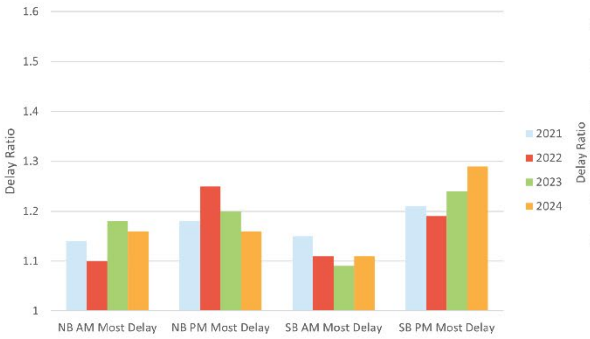

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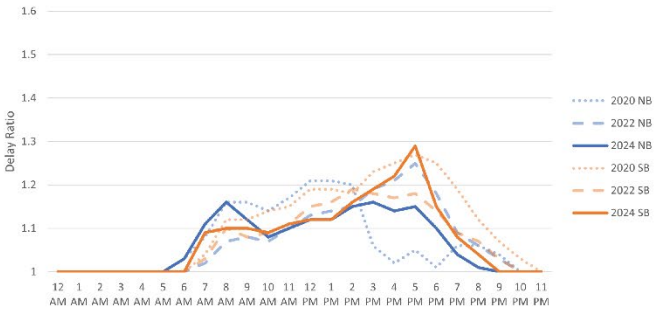
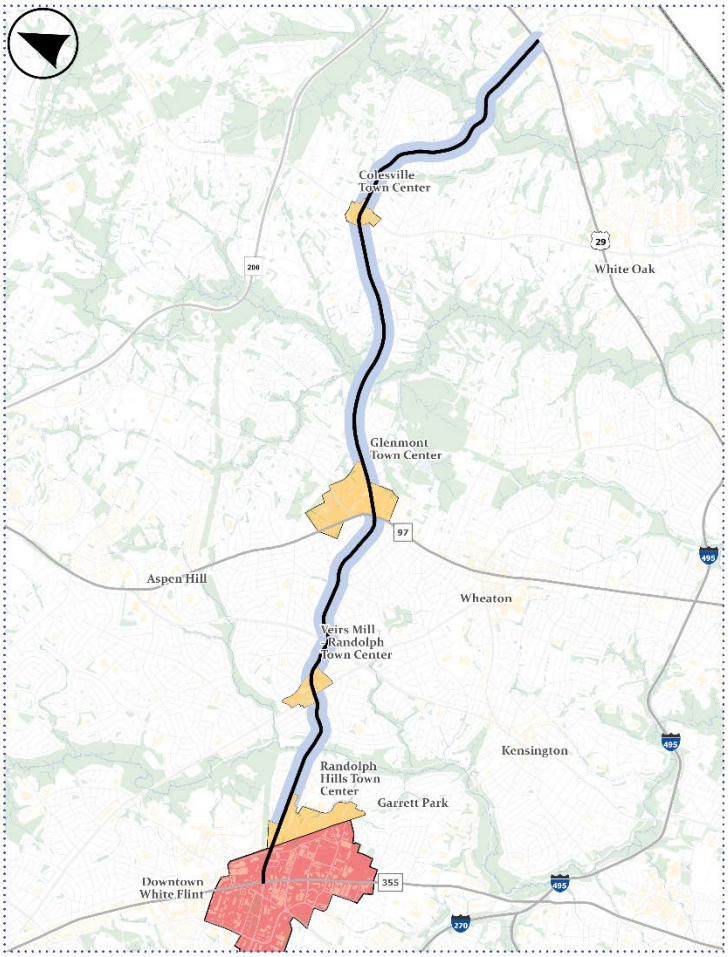


Old Georgetown Road Growth Corridor

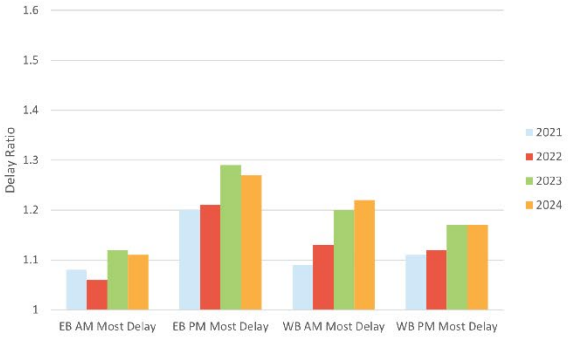
	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Downtown North Bethesda	12%	50%	2.2	27%
Suburban	16%	26%	1.0	n/a
 Downtown Rock Spring	44%	27%	3.2	18%

Randolph Road



Corridor
Downtown
Town Centers
Sububan
Industrial

Travel Time Index



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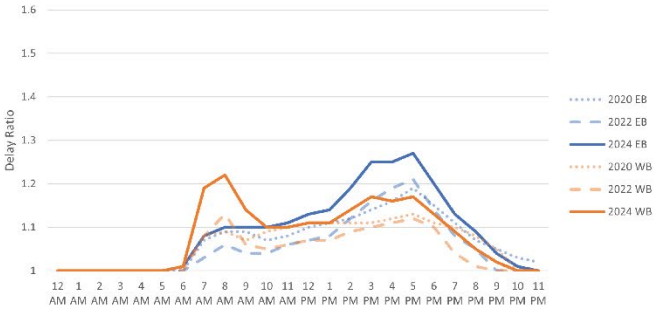


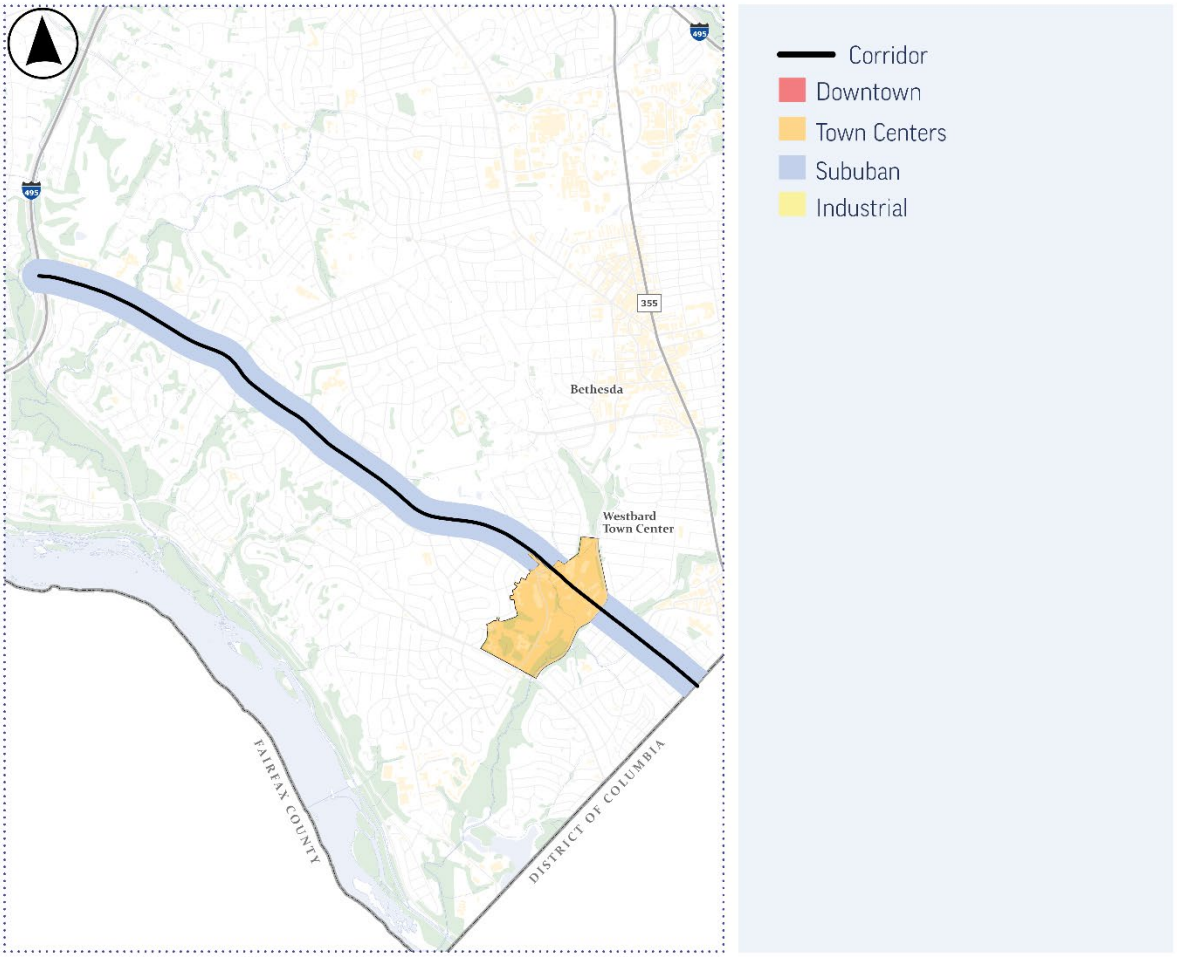
Randolph Road Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Downtown White Flint	48%	34%	1.4	27%
 Randolph Hills Town Center	22%	30%	1.9	48%
Suburban	29%	31%	1.3	n/a
 Veirs Mill - Randolph Town Center	0%	0%	1.6	65%
Suburban	0%	48%	1.3	n/a

Randolph Road Growth Corridor

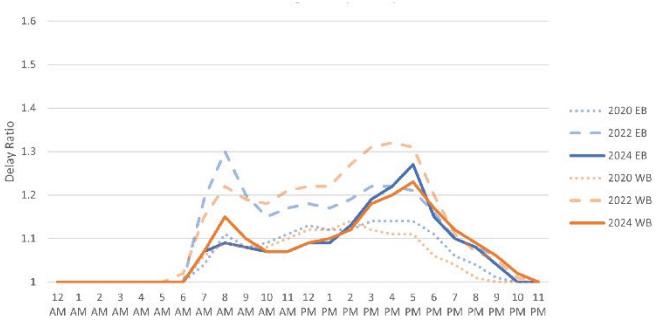
	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Glenmont Town Center	0%	19%	1.2	31%
Suburban	0%	0%	1.3	n/a
 Colesville Town Center	32%	3%	4.3	116%
Suburban	3%	1%	2.2	n/a
 Downtown White Oak West	27%	20%	1.5	55%

River Road



Travel Time Index

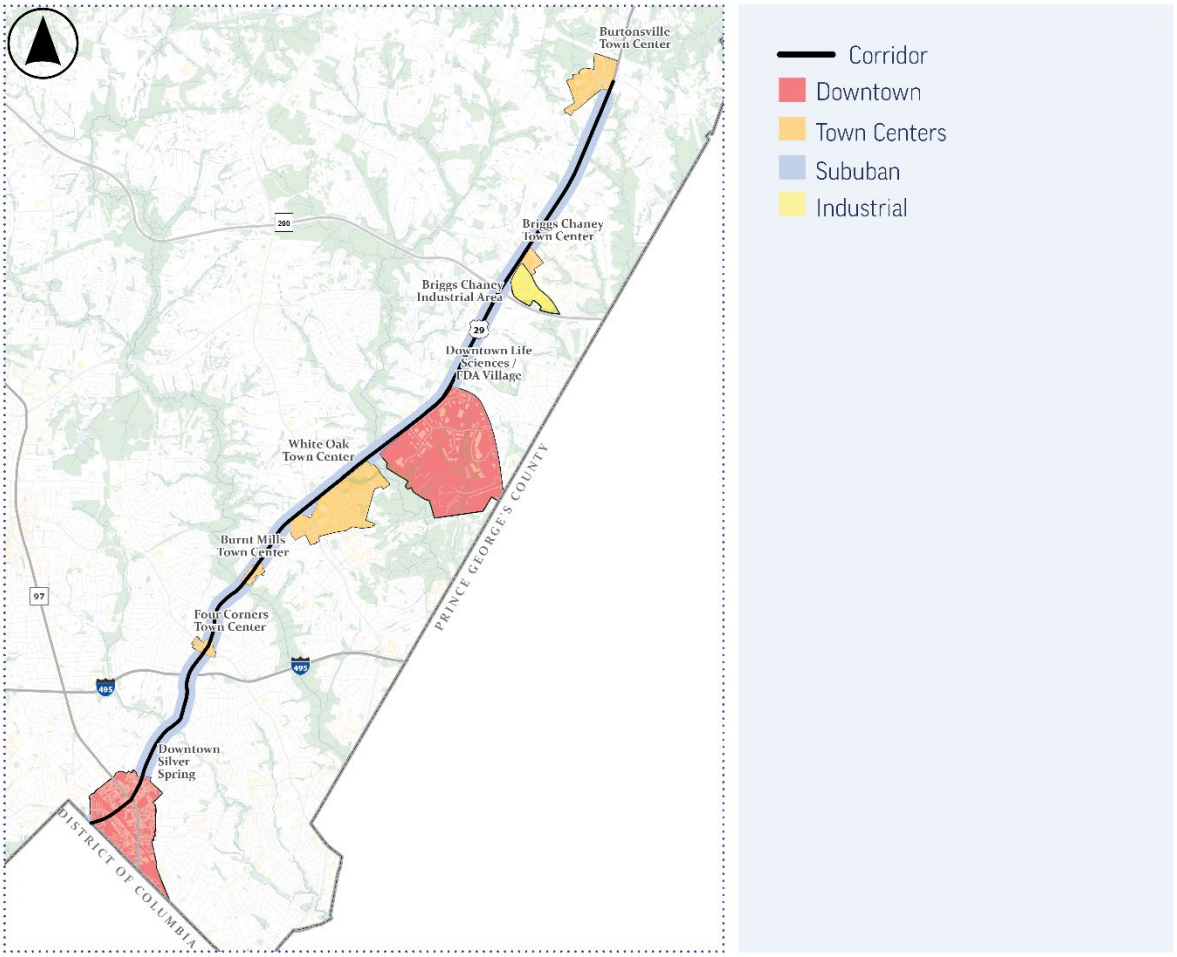
Average Daily Delay



River Road Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
Suburban	0%	1%	1.5	n/a
 Westbard Town Center	0%	1%	1.5	26%
Suburban	0%	4%	1.4	n/a

US 29



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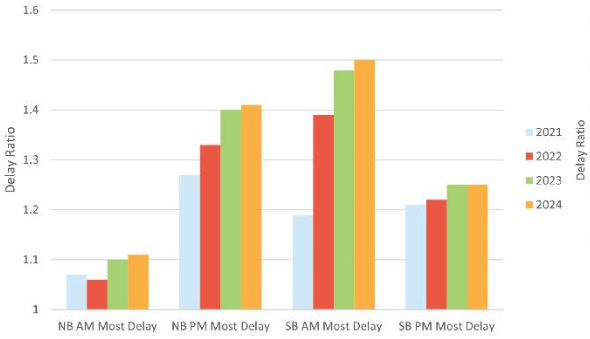

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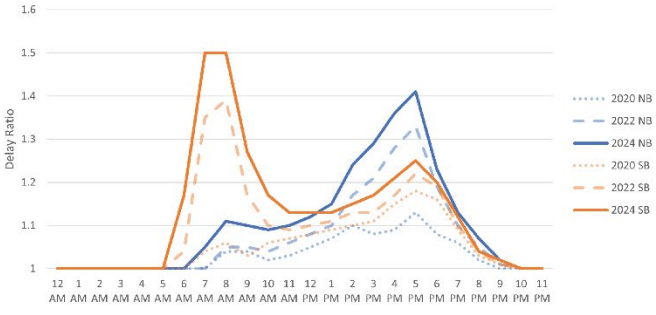


US 29 Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Burtonsville Town Center	39%	52%	n/a	50%
 Briggs Chaney Town Center	42%	0%	n/a	11%
Suburban	40%	36%	3.0	n/a
 Fairland Town Center	0%	0%	1.8	26%
Suburban	13%	35%	1.5	n/a
 Downtown Life Sciences / FDA Village	9%	22%	n/a	3%

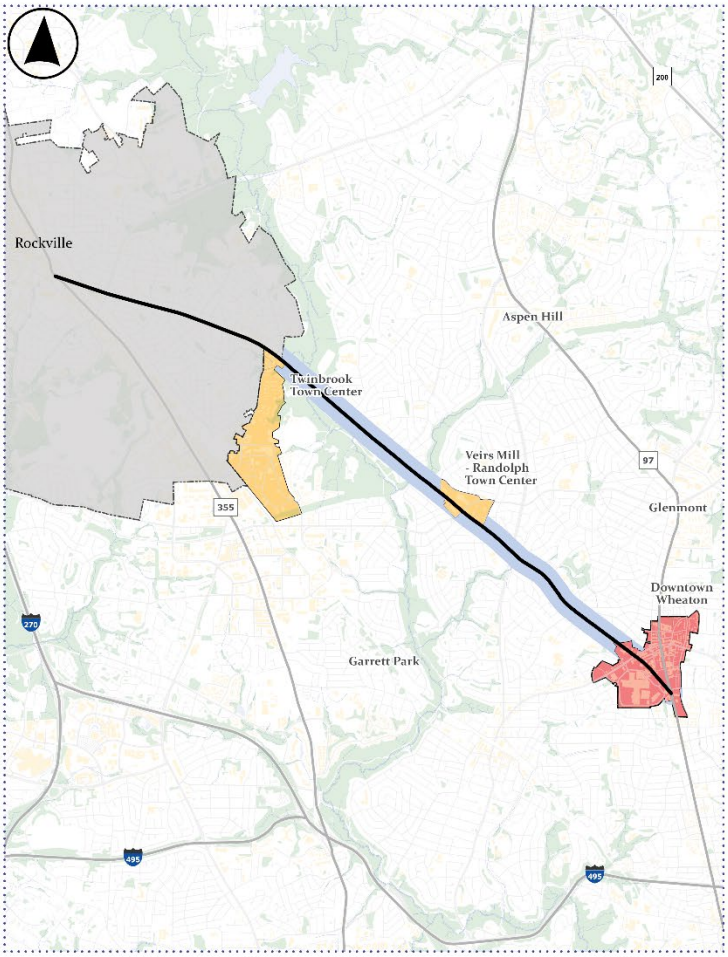
US 29 Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Downtown White Oak West	0%	8%	1.3	55%
 White Oak Town Center	0%	45%	n/a	30%
Suburban	0%	13%	1.8	n/a
 Burnt Mills Town Center	0%	38%	2.0	141%
Suburban	0%	2%	1.0	n/a
 Four Corners Town Center	39%	10%	1.5	230%

US 29 Growth Corridor

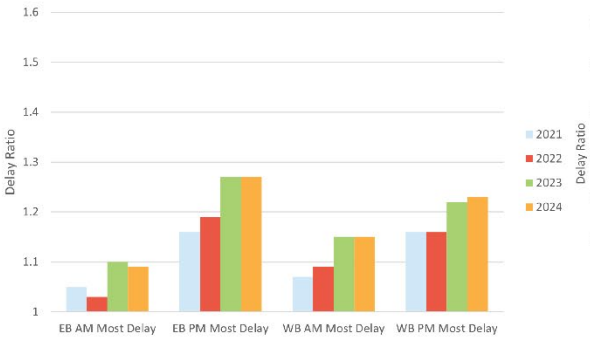
	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
Suburban	13%	15%	1.0	n/a
 Downtown Silver Spring	12%	78%	1.4	75%

Veirs Mill Road

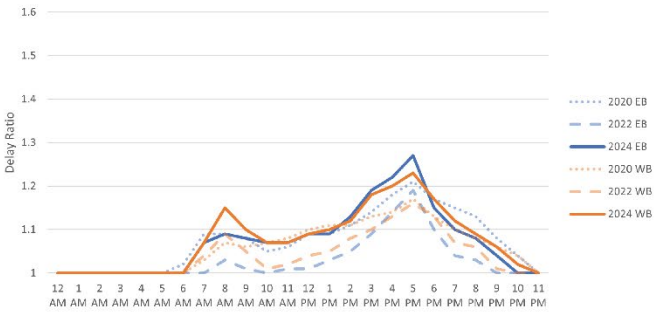


- Corridor
- Downtown
- Town Centers
- Sububan
- Industrial

Travel Time Index



Average Daily Delay



Veirs Mill Rd Growth Corridor

	Planned Bikeway Build Out	Pedestrian Pathway Comfort	Protected Crossing Spacing	Street Grid Build-Out
	Percent Complete	Percent Comfortable	Existing Ratio	Ratio
 Twinbrook Town Center	0%	0%	n/a	45%
Suburban	16%	2%	1.6	n/a
 Veirs Mill - Randolph Town Center	1%	26%	2.3	65%
Suburban	20%	25%	1.2	n/a
 Downtown Wheaton	0%	36%	1.5	72%

Chapter 4: Bicycle Master Plan

Background

The *Bicycle Master Plan* sets forth a transformative vision for transportation in Montgomery County, encouraging people of all ages and bicycling abilities to meet their daily needs by bicycle. The Plan envisions a community where bicycling to work, stores, schools, and transit or going for a leisurely ride on the weekend is so embedded in our way of life that bicycling becomes an integral mode of transportation in the daily lives of the county's residents. The *Bicycle Master Plan* creates a framework for this transformation, with recommendations to build an extensive network of low-stress bikeways connecting the county's downtowns, town centers, transit stations, and public facilities; a plethora of secure and convenient bicycle parking; and bicycle-supportive programs and policies.

Recognizing that providing a comfortable bicycling network is insufficient if people do not have secure places to store their bicycles at their destinations, the Plan also recommends an extensive supply of bicycle parking. This includes short-term bicycle parking provided with "U" racks at public facilities, such as parks, libraries, recreational centers, and short-term bicycle parking serving commercial areas. It also includes long-term bicycle parking provided in bicycle rooms and bicycle cages for residents, students, employees, and others who store their bicycles for several hours or longer. Long-term bicycle parking in secure bicycle parking stations within or directly adjacent to transit stations, including all Red Line stations and the higher-demand MARC, and Purple Line, is also recommended.

Capital Crescent Surface Trail, Photo Credit: Matt Johnson

Recognizing that providing a comfortable bicycling network is insufficient if people do not have secure places to store their bicycles at their destinations, the Plan also recommends an extensive supply of bicycle parking. This includes short-term bicycle parking provided with "U" racks at public facilities, such as parks, libraries, recreational centers, and short-term bicycle parking serving commercial areas. It also includes long-term bicycle parking provided in bicycle rooms and bicycle cages for residents, students, employees, and others who store their bicycles for several hours or longer. Long-term bicycle parking in secure bicycle parking stations within or directly adjacent to transit stations, including all Red Line stations and the higher-demand MARC, and Purple Line, is also recommended.

What Is Low-Stress Bicycling?

A low-stress bicycling network is one that is comfortable and safe for people of all ages and bicycling abilities. Low-stress bicycling reflects the context of the road. For example, low-stress bikeways include sidepaths with wide buffers from the street along high-volume and high-speed suburban highways, separated bike lanes on downtown streets, and bicycling in the road on very low-volume and low-speed residential streets.

The *Bicycle Master Plan* recommends bicycle-supportive programs and policies. These recommendations include dedicated funding for specific needs, such as neighborhood greenways and a bicycle parking program, teaching children how to bicycle in public school, and a Bike Montgomery

outreach program to encourage bicycling. It provides legal and policy recommendations, such as updating the county's road design standards, updating the bicycle parking provisions in the zoning code, and consolidating driveways along bikeways.

To ensure transparency and accountability of implementation, the Plan requires the Planning Department to produce a biennial monitoring report to track how well the vision of the Plan is being fulfilled. The report is reviewed by the Planning Board and approved by the County Council. This report includes six main sections:

- Goals and Objectives
- Bikeways
- Bicycle Parking
- Bicycle-Supportive Programs
- Bicycle-Supportive Legal and Policy Framework
- Recommendations

Chapter 3 of appendix A provides a more detailed data table for each of the objectives highlighted below.

Goals and Objectives

The *Bicycle Master Plan* envisions a future where Montgomery County is a world-class bicycling community in which everyone will be able to travel by bicycle on a comfortable, safe, and connected bicycling network. This vision is defined by four goals. The first goal measures results—whether more people are bicycling. The other goals measure the process and represent things that can be done to facilitate progress on the first goal. The goals are:

- Goal 1: Increase Bicycling Rates in Montgomery County
- Goal 2: Create a Highly Connected, Convenient, and Low-Stress Bicycling Network
- Goal 3: Provide Equal Access to Low-Stress Bicycling for All Members of the Community
- Goal 4: Improve the Safety of Bicycling

Defining a vision for the *Bicycle Master Plan* does not simply mean stating the goals on paper. It also lays the foundation for a comprehensive monitoring program, which supports the implementation of the Plan by providing an ongoing assessment of how effective Montgomery County is in meeting the Plan's goals and objectives over time. This section of the report discusses the extent to which each of the four goals in the *Bicycle Master Plan* have advanced over the past two years

Goal 1: Increase Bicycling Rates in Montgomery County

One of the most important measures of success for the *Bicycle Master Plan* is an increase in bicycling in Montgomery County. The objectives for Goal 1 evaluate how bicycling increases over time among different groups of people, destinations, and trip types. Success in advancing this goal is largely driven by success in advancing the other three goals of the Plan, as well as the program and policy recommendations in the Plan.

A note about rounding: The metrics reported in this document are rounded, which means that in some instances the results may appear to be off by 1%.

Bicycling rates are likely to have been heavily impacted by the COVID-19 pandemic and data on bicycling during this time may not be accurate. On the one hand, the surge in teleworking and temporary virtual schooling reduced daily trips, especially commute trips and trips to school, which are the most likely type of trips to be made by bicycling. On the other hand, health-related restrictions on gatherings coupled with supportive programs like Montgomery Parks' Open Roadways Initiative and MCDOT's Shared Streets program increased recreational bicycling.

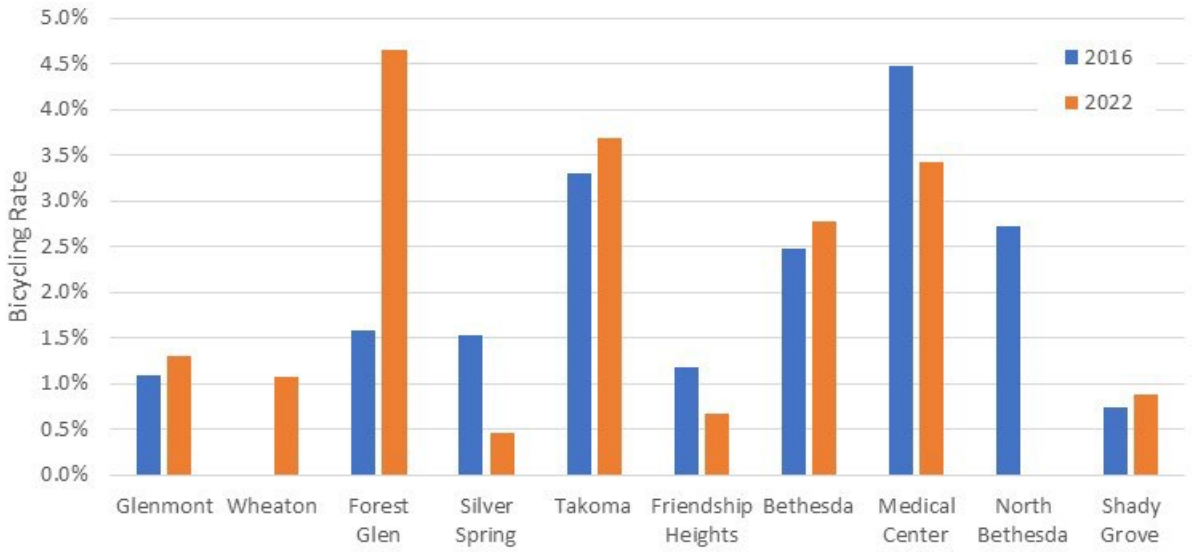
The Percentage of Residents Who Commute by Bicycle (Objective 1.1) decreased slightly from 0.5% in 2022 to 0.4% in 2023.

Bicycling Rates to the Transportation Management Districts (Objective 1.2) were collected during the fall of 2023 and show rates holding consistent in four of the six Transportation Management Districts (TMDs). The two areas that experienced an increase in cycling include Greater Shady Grove, which increased from 0.1% to 0.4%, and White Oak, which jumped from 0.4% to 0.7%.

Bicycle Rates to Transit (Objective 1.3) data collection was completed in 2022 and was provided in the previous 2021–2022 Travel Monitoring Report. In fall 2022, 1.6% of Red Line passengers accessed the Red Line by bicycle. While the bicycling rates to Red Line stations remained consistent for many of the stations, the rates grew substantially for the Forest Glen station (1.6% to 4.7%) and dropped at Medical Center (4.5% to 3.4%) and North Bethesda (2.7% to 0.0%).

No recent surveys were conducted for the MARC Brunswick Line. Bicycling rates to transit by station appear in Chapter 3 of the Appendix

Figure 15: Bicycling Rates to Transit by Station



Source: WMATA Ridership Surveys, 2016 and 2022

Bicycle Rates to Schools (Objective 1.4) data were last collected in fall 2024 and show that bicycling rates were about 1.0% for elementary schools, 1.1% for middle schools, and 1.2% for high schools. Schools with the highest rates of bicycling in fall 2024 for each level were:

- Elementary School: Ritchie Park (4.9%)
- Middle School: Robert Frost (5.0%)
- High School: Poolesville (2.0%)

Bicycling rates for each public school can be found in Chapter 3 of the appendix).

Goal 2: Create a Highly Connected, Convenient, and Low-Stress Bicycling Network

The objectives for Goal 2 capture how well destinations are connected on a low-stress bicycling network. The goal also evaluates the availability of bicycle parking.

Low-Stress Bicycling Metrics

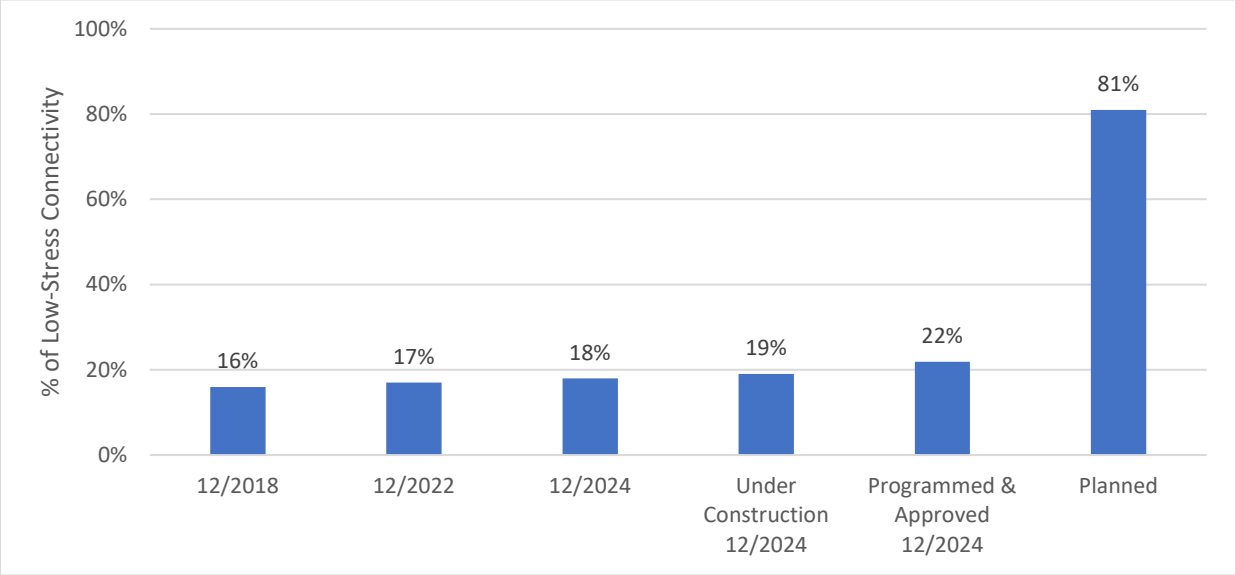
Bicycling is more likely to become a mainstream mode of transportation in Montgomery County if a low-stress network is developed that enables people to travel by bicycle to the places they want and need to go safely and comfortably. While about 75% of the roads in the county are already low-stress, they are often surrounded by high-speed and high-volume roads or difficult intersections, effectively creating islands of connectivity. Where feasible, reductions in traffic lanes and speeds can link these islands; where infeasible, bicycle infrastructure, such as a sidepath, separated bike lanes, and conventional bike lanes, are needed to connect the network. Four metrics evaluate the availability of low-stress bicycling:

- Countywide Connectivity (Objective 2.1)

- Connectivity to Transit Stations (Objective 2.2)
- Connectivity to Public Schools (Objective 2.3)
- Connectivity to Public Facilities (Objective 2.4)

Countywide Connectivity (Objective 2.1) is the overall measure of low-stress connectivity and measures the percentage of potential bicycling trips that can be made on a low-stress bicycling network. This metric has shown slow, steady growth from December 2018 through December 2024, increasing from 16% to 18%. Projects that are under construction as of December 2024 will add an additional 1%, and projects that are programmed in the county CIP or included in development projects will further increase connectivity to 22%.

Figure 16: Growth in Countywide Connectivity



Source: Transportation Planning Department analysis using Hybrid Network

The experience of individual policy areas shows greater improvements in some areas of the county. Between December 2022 and December 2024, connectivity to the Clarksburg Town Center policy area grew by 21%, connectivity to the Woodside policy area grew 8%, and connectivity to Fairland/Briggs Chaney grew 4%.

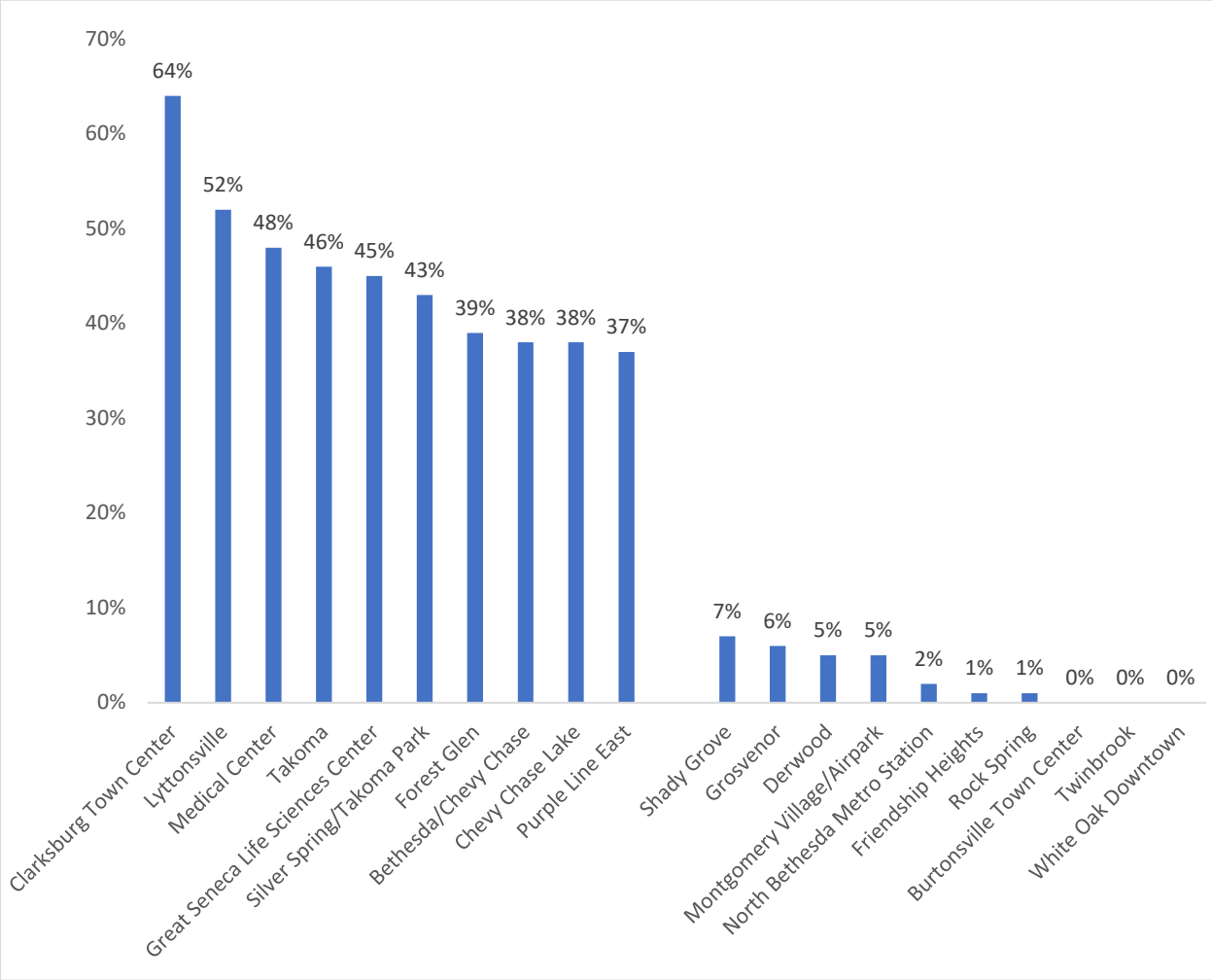
The following policy areas will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024, projects in the CIP, and development approvals:

- Great Seneca Life Sciences Center will increase 34%, from 11% to 45%
- Chevy Chase Lake will increase 34%, from 4% to 38%
- Lyttonsville will increase 32%, from 20% to 52%
- Silver Spring CBD will increase 20%, from 9% to 29%

Policy areas with the highest and lowest bicycle connectivity after all projects under construction, projects funded in the capital budget, and conditions of development approval are constructed are shown in Figure 17. Bicycle connectivity rates for each policy area can be found Chapter 3 of the

appendix. The methodology for evaluating Objective 2.1 is documented in the *Bicycle Master Plan* Appendix E.

Figure 17: Policy Areas with the Highest and Lowest Bicycle Connectivity, Including Funded and Approved Projects



Source: Transportation Planning Department analysis using Hybrid Network

Connectivity to Transit Stations (Objective 2.2) evaluates the percentage of dwelling units within two "network distance" miles of each transit station that are connected to the public facility on a low-stress bicycling network. Between December 2022 and December 2024, this metric grew from 12% to 13% for US 29 FLASH Bus stations and from 10% to 15% for Metrorail Red Line stations. Connectivity remained the same for Purple Line stations (11%) and decreased for Brunswick Line stations from 18% to 17%.

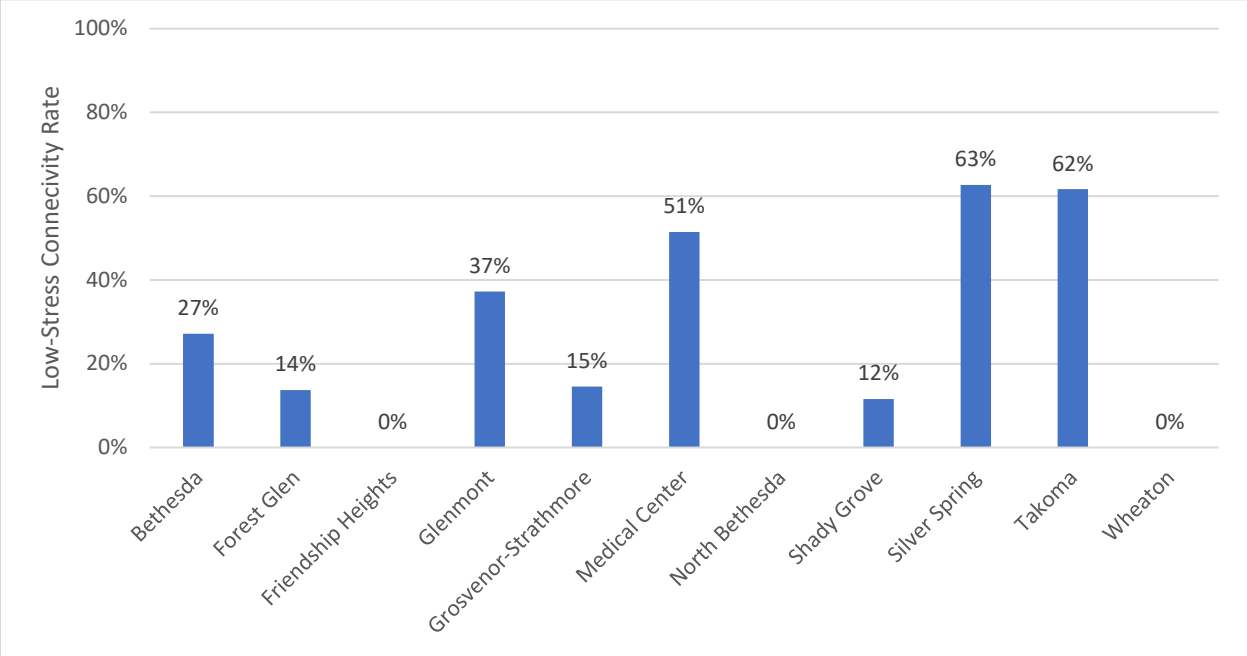
Red Line Stations: Overall, connectivity grew from 10% to 15% between December 2022 and December 2024. It will grow further to 19% after completion of projects under construction as of December 2024 and to 28% after completion of projects that are funded or after conditions of development projects are met. The following Red Line stations will experience the largest future

growth in connectivity upon completion of all projects under construction at the end of 2024, in the CIP and in development approvals:

- Silver Spring station will increase 49%, from 14% to 63%, upon completion of the Capital Crescent Trail project and the Silver Spring Green Trail project, and with the future construction of the Metropolitan Branch Trail, Fenton Street cycle track, and Dixon Lane separated bike lanes.
- Takoma station will increase 32%, from 29% to 62%, upon completion of the Metropolitan Branch Trail.
- Bethesda station will increase 21%, from 6% to 27%, upon completion of the Capital Crescent Trail (Phase 1) and the Montgomery Avenue/Montgomery Lane Separated Bike Lanes (Phase 1 and 2A) and the future construction of the Montgomery Avenue/Montgomery Lane Separated Bike Lanes (Phase 2C), the Capital Crescent Surface Trail (Phase 2), the Woodmont Avenue Cycle Track (Phase 2), the Cheltenham Separated Bike Lanes, and the Battery Lane Separated Bike Lanes (to be constructed by the Battery District development project).
- Medical Center station will increase 15%, from 37% to 51%, due to improvements to the Jones Bridge Road shared use path and future construction of the Battery District development project.

Low-stress bicycle connectivity to Red Line stations after all projects under construction, funded in the capital budget, and conditions of development approval are constructed are shown in Figure 18.

Figure 18: Low-Stress Bicycle Connectivity to Red Line Stations, Including Funded and Approved Projects



Source: Transportation Planning Department analysis using Hybrid Network

Brunswick Line Stations: Overall, connectivity decreased by 1% from 18% to 17% between December 2022 and December 2024 due to the temporary impacts of construction in Silver Spring. It will grow to

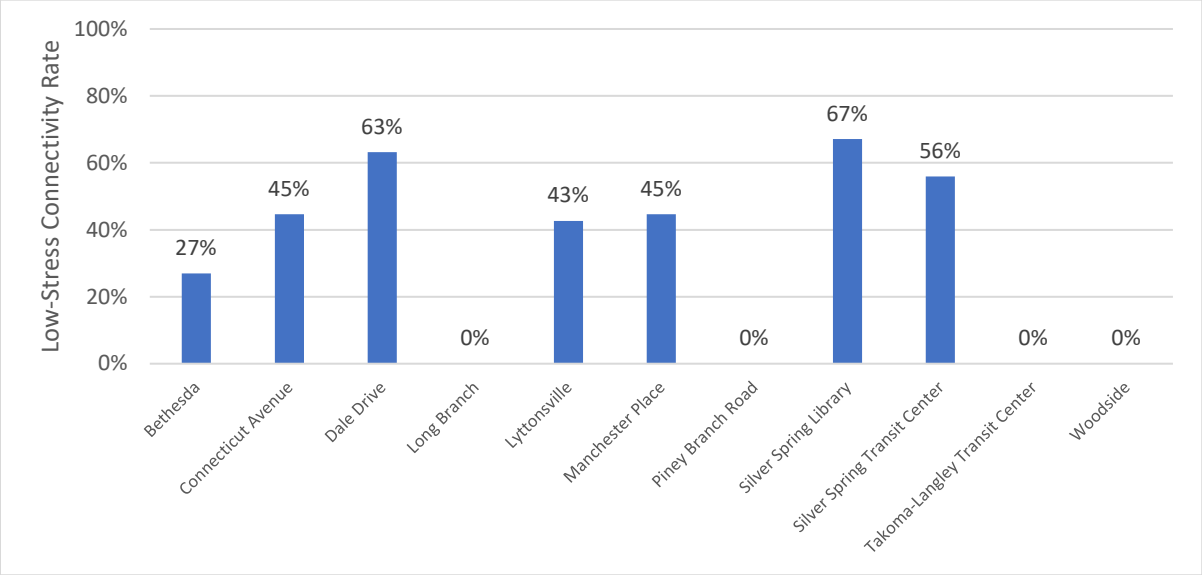
27% with completion of projects under construction as of December 2024 and to 32% with completion of projects that are funded or when conditions of development projects are met. The Silver Spring station will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024, projects in the CIP, and development approvals, growing from 0% to 53%.

Purple Line Stations: Overall, connectivity to future Purple Line stations remained at 11% between December 2022 and December 2024. It will grow to 19% with completion of projects under construction as of December 2024 and to 34% with completion of projects that are funded and when conditions of development projects are met. These Purple Line stations will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024, in the CIP and in development approvals:

- Silver Spring Library station will increase from 0% to 67% due to completion of the Capital Crescent Trail project, Silver Spring Green Trail project, and the Metropolitan Branch Trail, and with the future construction of the Fenton Street cycle track and Dixon Lane separated bike lanes.
- Connecticut Avenue station will increase from 0% to 45% upon completion of the Capital Crescent Trail.
- Silver Spring Transit Center station will increase 44%, from 12% to 56%, for the same reasons as the Silver Spring Library station.
- Lyttonsville station will increase 42%, from 1% to 43%, upon completion of the Capital Crescent Trail.

Low-stress bicycle connectivity to future Purple Line stations after all projects under construction, funded in the capital budget, and conditions of development approval are constructed are shown in Figure 19.

Figure 19: Low-Stress Bicycle Connectivity to Future Purple Line Stations, Including Funded and Approved Projects



Source: Transportation Planning Department analysis using Hybrid Network

US 29 FLASH: Overall, connectivity to US 29 FLASH bus stations increased from 12% to 13% between December 2022 and December 2024. It will grow to 17% with projects under construction as of December 2024 and to 21% with projects that are funded or conditions of development projects.

Bicycle connectivity rates for each transit station can be found in Chapter 3 of the appendix.

Connectivity to Public Schools (Objective 2.3) evaluates the percentage of dwelling units within one mile of elementary schools, 1.5 miles of middle schools, and two miles of high schools that are connected to each school on a very low-stress bicycling network.[5] This metric grew slightly between December 2022 and December 2024 from 35% to 36% for high schools and remained the same for elementary schools (58%) and middle schools (46%).

Elementary Schools: Overall, connectivity to elementary schools remained at 58% between December 2022 and December 2024. It is projected to remain constant because all projects under construction at the end of 2024 and projects in the CIP and development approvals are complete. The following elementary schools will see the greatest increase in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Rock Creek Forest Elementary School will increase 18%, from 16% to 34%.
- East Silver Spring Elementary School will increase 18%, from 71% to 90%.
- Rolling Terrace Elementary School will increase 12%, from 87% to 99%.

Middle Schools: Overall, connectivity to middle schools remained at 46% between December 2022 and December 2024. The following middle schools will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Silver Creek Middle School will increase 18%, from 39% to 57%.
- Silver Spring International Middle School will increase 18% from 49% to 67%.
- Takoma Park Middle School will increase 10%, from 64% to 74%.

High Schools: Overall, connectivity to high schools increased from 35% to 36% between December 2022 and December 2024. It will grow to 39% with projects under construction as of December 2024. The following school will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Bethesda Chevy Chase High School will increase 20%, from 28% to 48%, when ongoing construction of the Capital Crescent Trail is complete.

Bicycle connectivity rates for each public school can be found in Chapter 3 of the appendix.

[5] This is based on an "as the crow flies" distance from each public school, as that is how Montgomery County Public Schools determines its busing zones.

Connectivity to Public Facilities (Objective 2.4) evaluates the percentage of dwelling units within two "network distance" miles of public libraries, recreation centers, and regional and recreational parks that are connected to these public facilities on a low-stress bicycling network. This metric remained constant between December 2022 and December 2024 for public libraries (11%) and recreation centers (22%). It increased slightly from 30% to 32% for regional and recreational parks.

Public Libraries: Overall, connectivity to public libraries remained at 11% between December 2022 and December 2024. It will grow to 14% with projects that are funded or conditions of development projects. The following library will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Silver Spring Library will grow 65%, from 0% to 65%, due to completion of the ongoing Capital Crescent Trail project and the Ripley II development project, and with the future construction of the Metropolitan Branch Trail and the Fenton Street cycle track.

Recreation Centers: Overall, connectivity to recreation centers remained at 22% between December 2022 and December 2024. It will grow to 26% with the completion of projects that were under construction in December 2024 and to 31% with projects that are funded or conditions of development projects. The following recreation centers will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Gwendolyn E. Coffield Recreation Center will grow 39%, from 17% to 55%, upon completion of the Capital Crescent Trail.
- Leland Community Recreation Center will grow 25%, from 8% to 33%, upon completion of the Capital Crescent Trail.
- Heffner Park Community Center will grow 18%, from 41% to 59%.

Recreational and Regional Parks: Overall, connectivity to recreational and regional parks grew from 30% to 32% between December 2022 and December 2024. It will grow to 35% with the completion of projects that were under construction in December 2024 and projects that are funded or conditions of development projects. The following park will experience the largest future growth in connectivity upon completion of all projects under construction at the end of 2024 and projects in the CIP and development approvals:

- Wheaton Regional Park will grow 12%, from 32% to 44%.

Bicycle connectivity rates for each public facility can be found in Chapter 3 of the appendix.

Bicycle Parking Metrics

Simply providing a comfortable bicycling network is insufficient if people do not have a secure place to store their bicycles when they arrive at their destinations. Objectives for this goal examine bicycle parking at major destinations, such as transit stations, commercial areas, and public facilities, including schools, libraries, and recreation centers. Four metrics evaluate the availability of secure bicycle parking:

- Rail Stations with Bicycle Parking Stations (Objective 2.5)
- Sufficient Bicycle Parking at Public Schools (Objective 2.6)
- Sufficient Bicycle Parking in Bicycle-Pedestrian Priority Areas (Objective 2.7)
- Sufficient Bicycle Parking at Public Facilities (Objective 2.8)

In this report, the changes to Objective 2.7 were not included.

Rail Stations with Bicycle Parking Stations (Objective 2.5): Currently, one bicycle parking station exists: a 100-space bicycle parking station at the Grosvenor Metrorail station provided by the Strathmore Square development project. Two bicycle parking stations are advancing, including a 460-space station at the Bethesda South station[6] and a 74-space station in Downtown Silver Spring.

Sufficient Bicycle Parking at Public Schools (Objective 2.6): This metric evaluates the adequacy of bicycle parking and is defined as the existing proportion of needed bicycle parking spaces that meet industry standards. Data for this metric have not been updated for this report and reflect the status of bicycle parking as of December 2022, since more recent data are not available. In 2022, existing bicycle parking that met industry standards provided 8% of the total needed bicycle parking. This is an increase from 5% in 2016.

Elementary Schools: In 2022, the proportion of bicycle parking spaces that met industry standards provided 6% of needed parking. This is an increase from 4% in 2016. At Title I/Focus schools, industry-standard bicycle parking met 6% of the total need in 2022, increased from 5% in 2016. At non-Title I/Focus schools, industry-standard parking met 6% of the total need in 2022, increased from 3% in 2016.

Middle Schools: In 2022, the proportion of bicycle parking spaces that met industry standards provided 12% of needed parking. This is an increase from 5% in 2016. At schools with an above-average proportion of students qualifying for FARMS, industry-standard bicycle parking met 0% of the total need in both 2022 and 2016. At non-FARMS schools, industry-standard parking met 25% of the total need in 2022, increased from 10% in 2016.

High Schools: In 2022, the proportion of bicycle parking spaces that met industry standards provided 2% of needed parking. This is an increase from just under 2% in 2016. At schools with an above-average proportion of students qualifying for FARMS, industry-standard bicycle parking met 3% of the total need in both 2022 and 2016. At non-FARMS schools, industry-standard parking met 1% of the total need in 2022, increased from 0% in 2016.

Sufficient Bicycle Parking at Public Facilities (Objective 2.8): This category includes libraries and recreation centers.

Libraries: In 2022, the proportion of bicycle parking spaces at Montgomery County public libraries that met industry standards provided 63% of needed parking. This was a decrease from 65% in 2016.

[6] The Bethesda South station is the location of the new southern entrance to the Bethesda Metrorail station and the Bethesda Purple Line station at 7272 Wisconsin Avenue.

During that four-year period, 30 adequate spaces were added, mostly at the new Wheaton Library, while 32 inadequate spaces were removed from the Silver Spring Library.

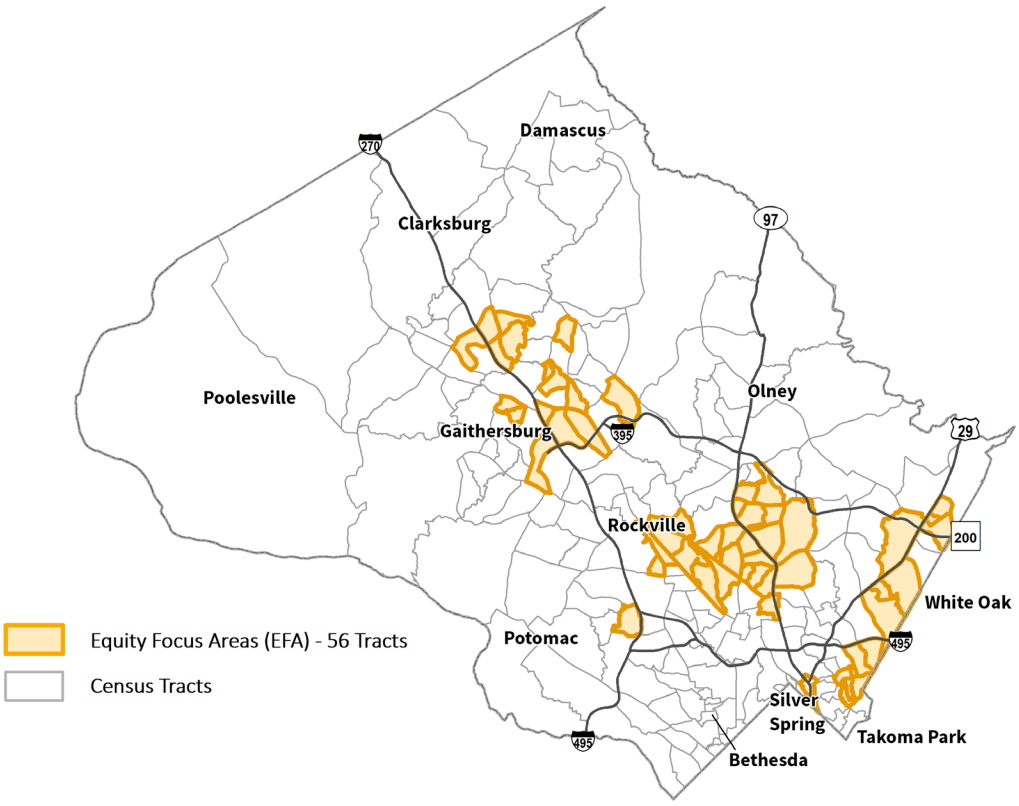
Recreation Centers: In 2022, the proportion of bicycle parking spaces at Montgomery County recreation centers that met industry standards provided nearly 85% of needed parking. This was an increase from nearly 67% in 2016.

Goal 3: Provide Equal Access to Low-Stress Bicycling for All Members of the Community

Montgomery County's Racial Equity and Social Justice Act went into effect March 2020 and requires the Planning Board to consider racial equity and social justice impacts when preparing master plans. While completion of the *Bicycle Master Plan* predated this law, one of the Plan's goals is to provide equal access to low-stress bicycling for all members of the community. The Planning Department is committed to incorporating equity into its work efforts and includes the following metrics focused on equity:

- Connectivity to Equity Focus Areas (Objective 3.1)
- Connectivity to Title I/Focus FARMS Public Schools (Objective 3.2)

Figure 20: Equity Focus Areas

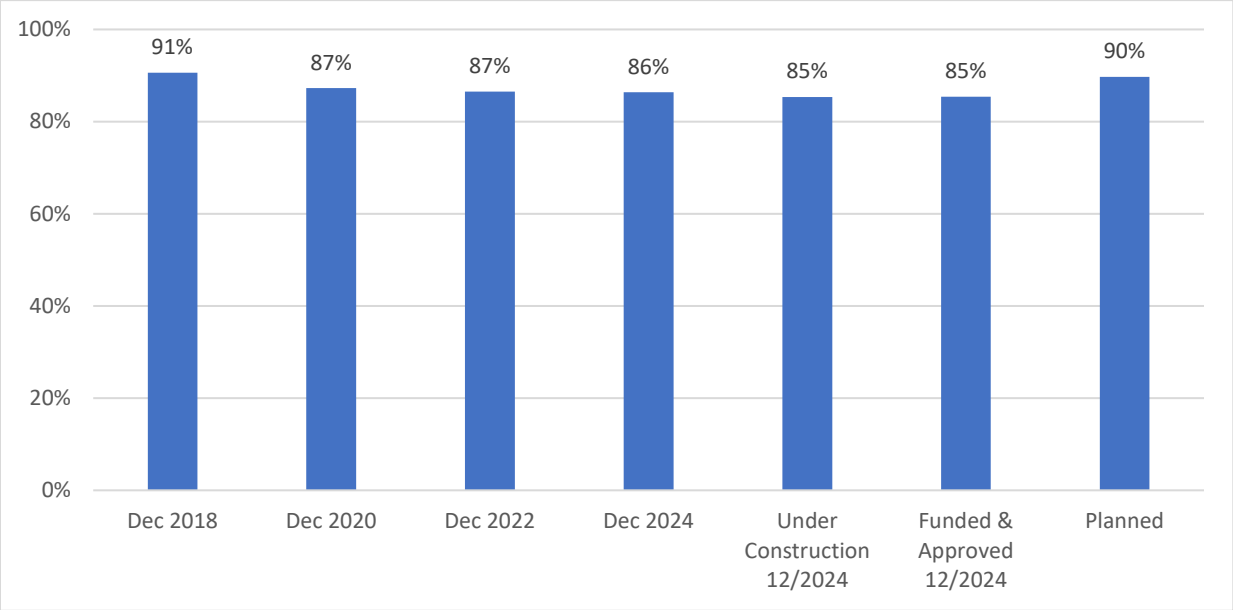


Connectivity to Equity Focus Areas (Objective 3.1) compares the percentage of potential bicycling trips that could be made on a low-stress bicycling network in all EFAs with that percentage in all non-EFAs. A result of 100% would indicate that there is parity in the low-stress connectivity between EFAs and non-EFAs overall. A result of 50% would indicate that EFAs have half the low-stress connectivity of non-EFAs.

Between December 2022 and December 2024, the disparity in low-stress connectivity increased by 1%. EFAs had 86% of the low-stress connectivity that non-EFAs experience, down from 87% in December 2022. When projects that are under construction, funded in the CIP, or approved for development are complete the metric will further slide to 85%.

This continues a downward trend from when this metric was first measured in 2018, at which point the disparity between EFAs and non-EFAs was only 9%. It is also important to point out that connectivity is increasing in both EFA and non-EFAs, but non-EFAs are experiencing a faster rate of growth, leading to a growing equity gap.

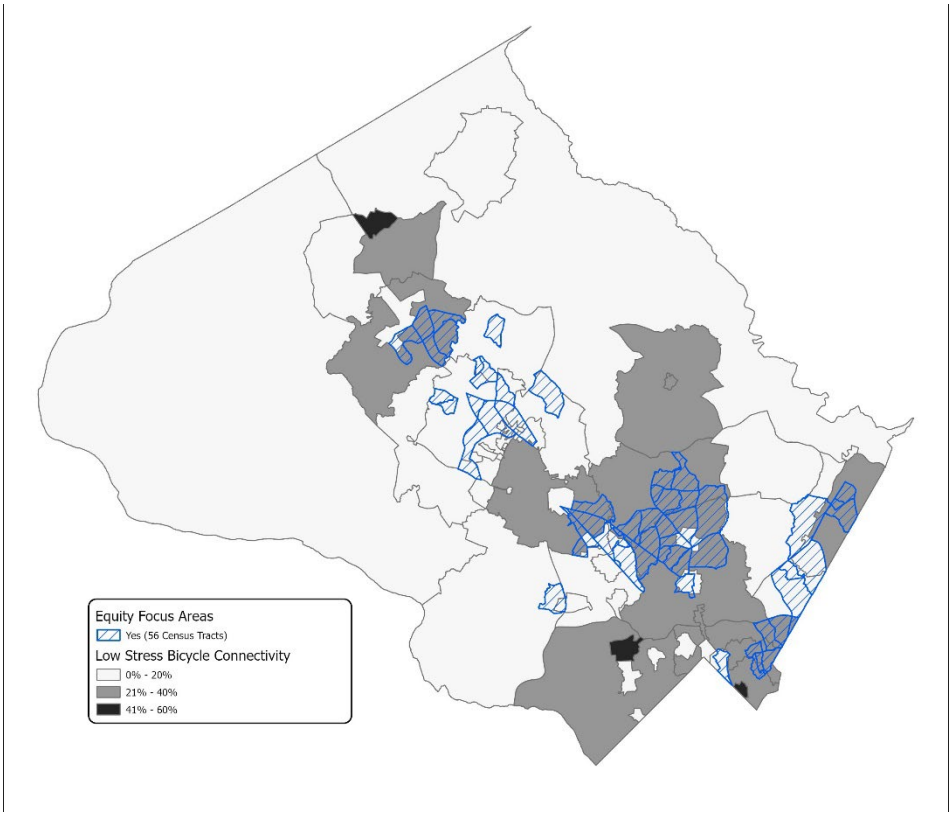
Figure 21: Equitable Access to Low-Stress Bicycling



Source: Transportation Planning Department analysis using Hybrid Network

A map showing the geographic distribution of low-stress bicycling compared with EFAs is included in Figure 22.

Figure 22: Low-Stress Bicycle Connectivity and Equity Focus Areas in December 2024



Source: Transportation Planning Department analysis using Hybrid Network

Connectivity to Public Schools with Title I/Focus or High FARMS Rates (Objective 3.2): This metric compares schools that serve high numbers or high percentages of children from low-income families to other schools in the county. The data show that, on average, these schools are better served by low-stress bicycling than non-Title I and non-Focus schools or schools with low FARMS rates.

For instance, in December 2024, the low-stress connectivity to Title I/Focus middle schools was 47%, compared with 43% for all other middle schools. The low-stress connectivity to elementary schools that serve families with low incomes slightly trailed that of other schools, with an average connectivity rate of 57% compared with 59%, respectively. For high schools, the low-stress connectivity to schools that reside in an EFA was 43%, compared with 27% for high schools that are not in an EFA. This finding does not mean that connectivity to schools is sufficient, it just means that on average, schools that serve equity populations are better connected by low-stress bicycling than non-Title I/Focus schools and schools with smaller shares of FARMS-qualifying students.

Goal 4: Improve the Safety of Bicycling

The intent of this goal is to make bicycling safe by eliminating serious injuries and fatalities. While safety can be improved by taking active measures to reduce travel speeds and providing separation from traffic, this goal will be evaluated by reactive metrics based on crash reports. Two metrics evaluate the safety of bicycling:

- Bicycling Fatalities and Serious Injuries per Year (Objective 4.1)
- Bicycling Fatalities and Serious Injuries per Year in Equity Focus Areas (Objective 4.2)

Bicycling Fatalities and Serious Injuries per Year (Objective 4.1): There was one fatality and 10 serious injuries in 2023 and zero fatalities and 12 serious injuries in 2024.

Bicycling Fatalities and Serious Injuries per Year in Equity Focus Areas (Objective 4.2): While the goal is to eliminate all serious injuries and fatalities, it is known that serious and fatal transportation crashes are overrepresented among Black and Hispanic populations. Since race and ethnicity are not available in the crash data, this analysis reviews crash locations to see if a disproportionate number occur in EFAs compared with non-EFAs.

Since 2018, the rate of severe or fatal crashes involving cyclists in non-EFAs has continued to fall, while the rate in EFAs has risen. In 2022, three out of 17 serious and fatal cyclist crashes occurred in EFAs, compared with five out of 12 fatalities or severe injuries in 2024.

Table 6: Severe and Fatal Crashes Involving Cyclists per 100,000 People in EFAs versus Non-EFAs

Year	Non-EFA	EFA	Percent
2018	1.3	1.1	83%
2020	1.4	0.0	0%
2021	1.4	0.4	25%
2022	1.8	1.1	60%
2023	1.0	1.1	104%
2024	0.9	1.8	199%

Table 7: Evaluation of Goals and Objectives

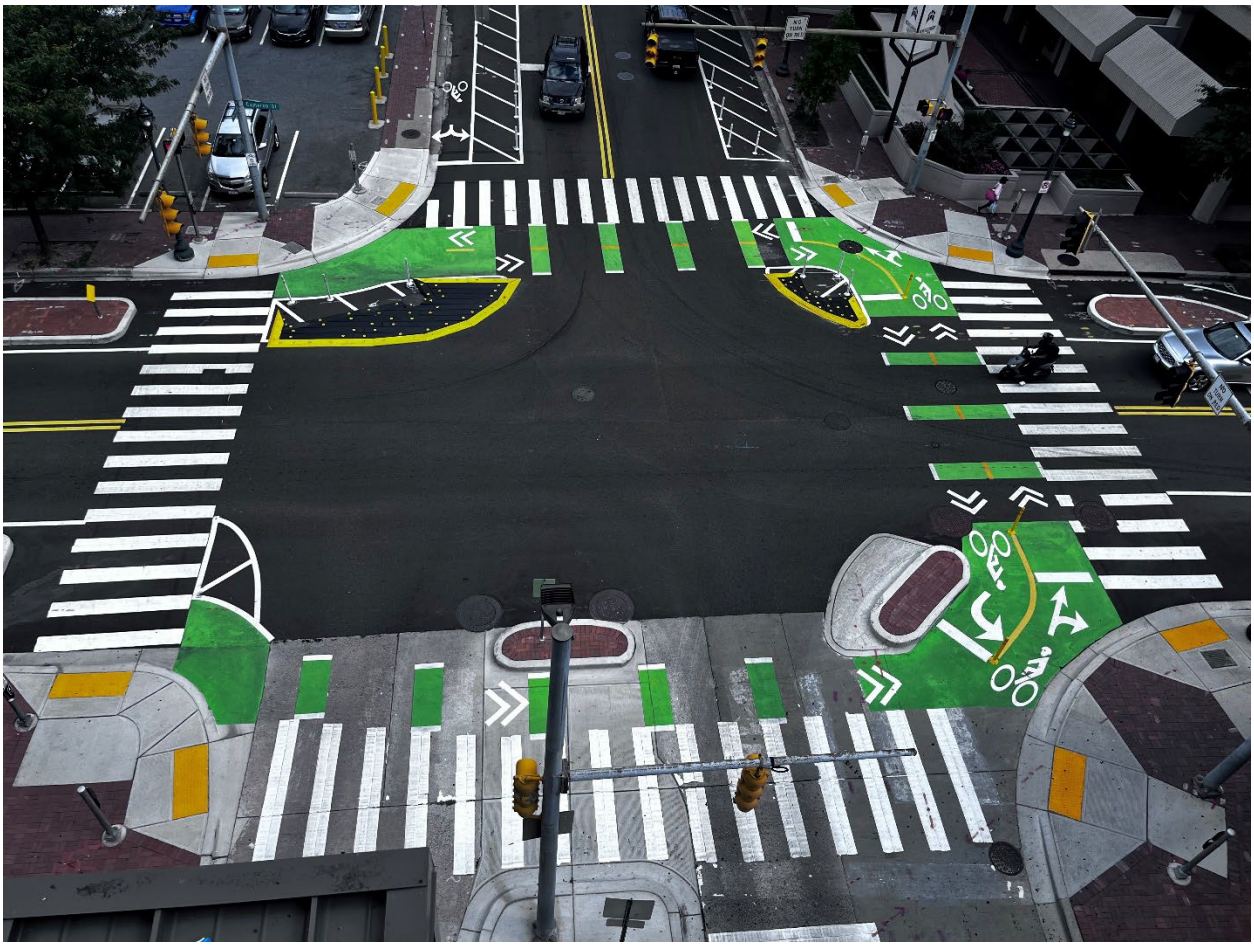
Objective	Metric		12/2018	12/2022	12/2024	Under Construction 12/2024	Funded & Approved 12/2024	Target (Tier 4)
Goal 1: Increase Bicycling Rates in Montgomery County								
1.1	Percentage of Residents Who Commute by Bicycle		0.6% (2018)	0.5% (2021)	0.4% (2023)	--	--	8%
1.2	Bicycling Rates to Transportation Management Districts	Downtown Bethesda	0.7%	1.4%	1.4%	--	--	15%
		Downtown Silver Spring	1.4%	1.6%	1.6%	--	--	12%
		Friendship Heights	1.4%	0.6%	0.6%	--	--	10%
		Greater Shady Grove	1.5%	0.1%	0.4%	--	--	10%
		North Bethesda	1.0%	0.4%	0.4%	--	--	10%
		White Oak	N/A	0.4%	0.7%	--	--	10%
1.3	Bicycling Rates to Transit	Red Line	1.6% (2016)	1.6%	N/A	--	--	10%
		Brunswick Line	N/A	N/A	N/A	--	--	N/A
		Purple Line	--	--	--	--	--	N/A
		US 29 FLASH	N/A	N/A	N/A	--	--	N/A
1.4	Bicycling Rates to Schools	Elementary Schools	N/A	N/A	1.0%	--	--	10%
		Middle Schools	N/A	N/A	1.1%	--	--	10%
		High Schools	N/A	N/A	1.2%	--	--	10%

Objective	Metric		12/2018	12/2022	12/2024	Under Construction 12/2024	Funded & Approved 12/2024	Target (Tier 4)
Goal 2: Create a Highly Connected, Convenient, and Low-Stress Bicycling Network								
2.1	Countywide Connectivity		16%	15%	17%	18%	19%	50%
2.2	Connectivity to Transit Stations	Red Line	8%	10%	15%	19%	28%	65%
		Brunswick Line	18%	18%	17%	27%	32%	65%
		Purple Line	4%	11%	11%	19%	34%	70%
		US 29 FLASH	2%	12%	13%	17%	21%	65%
2.3	Connectivity to Public Schools	Elementary Schools	59%	58%	58%	58%	57%	60%
		Middle Schools	45%	46%	46%	48%	47%	55%
		High Schools	39%	35%	36%	39%	38%	35%
2.4	Connectivity to Public Facilities	Public Libraries	10%	11%	11%	0%	19%	55%
		Recreation Centers	23%	22%	22%	26%	31%	40%
		Recreational and Regional Parks	29%	30%	32%	32%	35%	50%
2.5	Rail Stations with Bicycle Parking Stations	Red Line	0	0	1	0	2	11
		MARC Brunswick Line	0	0	0	0	0	5
		Purple Line	0	0	0	0	2	7
2.6	Sufficient Bicycle Parking at Public Schools	Elementary Schools	4%	6%	N/A	N/A	N/A	100%
		Middle Schools	5%	12%	N/A	N/A	N/A	100%

Objective	Metric		12/2018	12/2022	12/2024	Under Construction 12/2024	Funded & Approved 12/2024	Target (Tier 4)
		High Schools	2%	2%	N/A	N/A	N/A	100%
2.7	Sufficient Bicycle Parking in Bicycle-Pedestrian Priority Areas		15%	N/A	N/A	N/A	N/A	40%
2.8	Sufficient Bicycle Parking at Public Facilities	Public Libraries	74%	63%	N/A	N/A	N/A	100%
		Recreation Centers	67%	85%	N/A	N/A	N/A	100%
Goal 3: Provide Equal Access to Low-Stress Bicycling for All Members of the Community								
3.1	Connectivity to Equity Focus Areas		91%	87%	86%	85%	85%	90%
3.2	Connectivity to Title I/Focus FARMS Public Schools	Elementary Schools	59% / 59%	58% / 58%	57% / 59%	57% / 59%	56% / 57%	Focus ≥ Other
		Middle Schools	45% / 43%	46% / 41%	47% / 43%	49% / 43%	49% / 37%	Focus ≥ Other
	(EFA/Non-EFA)	High Schools	43% / 32%	42% / 27%	43% / 27%	43% / 35%	43% / 32%	EFA ≥ non-EFA
Goal 4: Improve the Safety of Bicycling								
4.1	Number of Bicycling Fatalities and Serious Injuries		13	17	12	--	--	0
4.2	Ratio of EFA to Non-EFA Fatalities and Serious Injuries Among Bicyclists, Controlling for Population		0.83	0.60	1.99	--	--	≤1.00

-- = Metric cannot be calculated
N/A = Data were not available
Source: Transportation Planning Department analysis using Hybrid Network

Bikeways



Although many trips are short enough to be made by bicycle, most are made by private motor vehicles. One barrier to bicycling is what is known as “traffic stress.” The concept of traffic stress is that people have a certain tolerance for bicycling near traffic, and if that tolerance is exceeded even for a short distance, they may be deterred from bicycling. To attract the broadest segment of the population to bicycle, the *Bicycle Master Plan* recommends bikeways that create low-stress networks of bikeways.

Bikeway Implementation

As shown in Table 1: Status of Master-Planned Bikeway Recommendations as of December 31, 2024 (Miles) , the *Bicycle Master Plan* recommends about 1,200 miles of bikeways, of which 300 miles, or about one-quarter, existed as of December 31, 2024. The largest category of recommended bikeways is sidepaths (654 miles), followed by off-street trails (175 miles), bikeable shoulders (130 miles), separated bike lanes (113 miles), and neighborhood greenways (51 miles).

During 2023 and 2024, 7.0 miles of new master-planned bikeways were completed (Table 8). This includes 5.5 miles completed in the public sector and 1.5 miles by developers. Sidepaths (4.6 miles) represent over half of all the bikeway mileage constructed during this time.

Table 8: Master-Planned Bikeways Completed in 2023 and 2024 (Miles)

Facility Type	Bikeway Type	Capital Projects	Development Projects	Total
Trails	Off-Street Trails	0.2	0.1	0.2
	Stream Valley Park Trails	0.0	0.0	0.0
	Neighborhood Connectors	0.0	0.0	0.0
Separated Bikeways	Separated Bike Lanes	0.4	0.3	0.6
	Sidepaths	3.5	1.1	4.6
Striped Bikeways	Buffered Bike Lanes	0.0	0.0	0.0
	Conventional Bike Lanes	0.6	0.0	0.6
	Contra-Flow Bike Lanes	0.0	0.0	0.0
Bikeable Shoulders	Bikeable Shoulders	0.7	0.0	0.7
Shared Roads	Shared Streets	0.0	0.0	0.0
	Neighborhood Greenways	0.2	0.0	0.2
	Priority Shared Lane Markings	0.0	0.0	0.0
Total	**Total**	**5.5**	**1.5**	**7.0**

Source: Transportation Planning Department analysis using Hybrid Network

The following pages provide information on some of the bikeway projects completed in 2023 and 2024.

PROJECT: Clarksburg Road / Snowden Farm Parkway	BIKEWAY TYPE: Sidepath
LENGTH: 1.1 miles	POLICY AREA: Clarksburg East
PROJECT LEAD: MCDOT	COMPLETION: September 2024

PROJECT: Good Hope Road Shared Use Path	BIKEWAY TYPE: Sidepath
LENGTH: 0.9 miles	POLICY AREA: Cloverly
PROJECT LEAD: MCDOT	COMPLETION: December 2024

PROJECT: Hillandale Local Park Renovation	BIKEWAY TYPE: Sidepath
LENGTH: 0.2 miles	POLICY AREA: White Oak
PROJECT LEAD: Parks Department	COMPLETION: November 2023

PROJECT: Upton Drive Neighborhood Greenway	BIKEWAY TYPE: Neighborhood Greenway
LENGTH: 0.2 miles	POLICY AREA: Kensington/Wheaton, Wheaton CBD
PROJECT LEAD: MCDOT	COMPLETION: June 2024

PROJECT: Woodlin Elementary School	BIKEWAY TYPE: Sidepath
LENGTH: 0.2 miles	POLICY AREA: Silver Spring/Takoma Park
PROJECT LEAD: Montgomery County Public Schools	COMPLETION: November 2024

PROJECT: 8787 Georgia Avenue	BIKEWAY TYPE: Separated Bike Lanes, Off-Street Trail
LENGTH: 0.1 miles	POLICY AREA: Silver Spring CBD
PROJECT LEAD: Silver Spring Apartments	COMPLETION: August 2024

PROJECT: White Oak Town Center	BIKEWAY TYPE: Sidepath
LENGTH: 0.1 miles	POLICY AREA: White Oak
PROJECT LEAD: BDC Spectrum II, LLC	COMPLETION: June 2024

PROJECT: Westwood Square	BIKEWAY TYPE: Separated Bike Lanes
LENGTH: 0.3 miles	POLICY AREA: Bethesda/Chevy Chase
PROJECT LEAD: Equity One	COMPLETION: June 2024

Table 9 shows that an additional 7.2 miles of new master-planned bikeways were under construction as of December 31, 2024. This includes 5.8 miles by the public sector and 1.4 miles by developers. There were 4.8 miles of off-street trails (largely the Capital Crescent Trail), 1.3 miles of separated bike lanes, and 1.0 miles of sidepath under construction at this time.

See Chapter 3 of the appendix for a list of specific bikeways under construction by capital projects and development projects as December 31, 2024.

Table 9: Master-Planned Bikeways Under Construction as of 12/31/2024 (Miles)

Facility Type	Bikeway Type	Capital Projects	Development Projects	Total
Trails	Off-Street Trails	4.8	0.0	4.8
	Stream Valley Park Trails	0.0	0.0	0.0
	Neighborhood Connectors	0.0	0.1	0.1
Separated Bikeway	Separated Bike Lanes	0.4	1.0	1.3
	Sidepaths	0.7	0.3	1.0
Striped Bikeways	Buffered Bike Lanes	0.0	0.0	0.0
	Conventional Bike Lanes	0.0	0.0	0.0
	Contra-Flow Bike Lanes	0.0	0.0	0.0
Bikeable Shoulders	Bikeable Shoulders	0.0	0.0	0.0
Shared Roads	Shared Streets	0.0	0.0	0.0
	Neighborhood Greenways	0.0	0.0	0.0
	Priority Shared Lane Markings	0.0	0.0	0.0
Total	**Total**	**5.8**	**1.4**	**7.2**

Source: Transportation Planning Department analysis using Hybrid Network

The following pages provide information on some of the bikeway projects that were under construction at the end of 2024.

PROJECT: Marinelli Road Separated Bike Lanes	BIKEWAY TYPE: Separated Bike Lanes
LENGTH: 0.7 miles	POLICY AREA: North Bethesda Metro Station
PROJECT LEAD: MCDOT	COMPLETION: Under construction as of 12/31/2024 (now partially complete)

PROJECT: Metropolitan Branch Trail Phase 2A	BIKEWAY TYPE: Off-Street Trail
LENGTH: 0.2 miles	POLICY AREA: Silver Spring CBD
PROJECT LEAD: MCDOT	COMPLETION: Under construction as of 12/31/2024

PROJECT: Silver Spring Green Trail	BIKEWAY TYPE: Sidepath
LENGTH: 0.7 miles	POLICY AREA: Purple Line East
PROJECT LEAD: Maryland Transit Administration	COMPLETION: Under construction as of 12/31/2024

PROJECT: PSTA Site	BIKEWAY TYPE: Separated Bike Lanes, Sidepath
LENGTH: 1.1 miles	POLICY AREA: Great Seneca Communities
PROJECT LEAD: The Elms at PSTA, LLC	COMPLETION: Under construction as of 12/31/2024

PROJECT: Crossroads of Kensington	BIKEWAY TYPE: Sidepath
LENGTH: 0.1 miles	POLICY AREA: Kensington/Wheaton
PROJECT LEAD: Mountain View Burleson, LLC	COMPLETION: Under construction as of 12/31/2024

PROJECT: Capital Crescent Trail	BIKEWAY TYPE: Off-Street Trail
LENGTH: 4.9 miles	POLICY AREA: Multiple
PROJECT LEAD: Maryland Transit Administration	COMPLETION: Under construction as of 12/31/2024

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As shown in Table 10, several new master-planned bikeways are on the horizon. These include 12.2 miles of bikeways funded in the capital budget and 1.7 miles of bikeways conditioned in approved development projects. The bikeways include 8.3 miles of sidepath, 3.4 miles of separated bike lanes, and 1.9 miles of neighborhood greenways. See Chapter 3 of the appendix for a list of funded bikeways and bikeways that will be delivered as part of development projects.

Table 10: Master-Planned Bikeways Funded or Approved for Construction as of 12/31/2024 (Miles)

Facility Type	Bikeway Type	Capital Projects	Development Projects	Total
Trails	Off-Street Trails	0.3	0.0	0.3
	Stream Valley Park Trails	0.0	0.0	0.0
	Neighborhood Connectors	0.0	0.0	0.0
Separated Bikeway	Separated Bike Lanes	2.3	1.1	3.4
	Sidepaths	7.7	0.6	8.3
Striped Bikeways	Buffered Bike Lanes	0.0	0.0	0.0
	Conventional Bike Lanes	0.0	0.0	0.0
	Contra-Flow Bike Lanes	0.0	0.0	0.0
Bikeable Shoulders	Bikeable Shoulders	0.0	0.0	0.0
Shared Roads	Shared Streets	0.0	0.0	0.0
	Neighborhood Greenways	1.9	0.0	1.9
	Priority Shared Lane Markings	0.0	0.0	0.0
Total	**Total**	**12.2**	**1.7**	**13.9**

Source: Transportation Planning Department analysis using Hybrid Network

Fee-in-Lieu

While for the most part it is preferable to require a developer to construct a master-planned bikeway as part of its project, in some instances, the Planning Board determines that it is more appropriate to take a financial contribution from a developer than to have the developer construct the project. The fee-in-lieu contributions in 2023 and 2024 were made by five projects and were valued at over $458,000, or roughly $91,000 per project.

Table 11: Fee-in-Lieu Contributions in 2023 and 2024

Project	Amount	Basis
4824 Edgemoor Lane	$33,000	Frontage Improvement
4901 Battery Lane	$1,139,929	Local Area Transportation Review
8008 Wisconsin Avenue	$694,323	Frontage Improvement
9801 Georgia Avenue	$1,275,636	Local Area Transportation Review
11117 Waycroft Way	$22,356	Frontage Improvement
Kingsview Station	$325,152	Local Area Transportation Review
Montgomery Village Marketplace	$1,982	Local Area Transportation Review
PSTA Site	$9,800	Local Area Transportation Review
Waters Village	$122,882	Local Area Transportation Review
Total	**$3,625,060**	

Source: Transportation Planning Department analysis using Hybrid Network

Bikeway Prioritization

Recognizing that the network of bikeways recommended in the *Bicycle Master Plan* is extensive and funding is limited, the Plan establishes priorities for implementation by the county. The approach to prioritizing construction of the bikeway network is based on reaching the targets established for each metric in the Goals, Objectives, Metrics, and Targets section of this Plan. The priorities focus on increasing bicycling in the county as quickly as possible by concentrating initial efforts on constructing networks of bikeways in places that the Montgomery County Council has designated as Bicycle and Pedestrian Priority Areas (BiPPAs), completing connections between downtowns, and ensuring that low-stress bicycling is equitably distributed. Also prioritized are filling gaps in the existing low-stress bicycling network and low-cost bikeways, such as neighborhood greenways, which will funnel bicyclists to the BiPPAs.

The *Bicycle Master Plan* groups bikeways into four groups.

- Tier 1 projects are recommended to be substantially completed in the near-term, following approval of the *Bicycle Master Plan*. These projects include:
    - Bikeways located in seven BiPPAs (Bethesda, Friendship Heights, Life Sciences Center, Silver Spring, Wheaton, White Flint, White Oak).
    - Neighborhood greenways feeding into these BiPPA areas.
    - High-demand bikeways that were included in the CIP at the time of approval.
    - Other county priorities.
- Tier 2 projects include bikeways located in the remaining BiPPAs.
- Tier 3 projects include:
    - Remaining neighborhood greenways.
    - Highest-demand bikeways located outside the BiPPAs.
    - High-demand recreational bicycling routes.
- Tier 4 projects include:
    - All remaining bikeways that are recommended for completion within the life of the Plan.
    - Several heavily used recreational bicycling routes.

No other projects are prioritized for implementation within the life of the Plan, but other projects may be implemented as opportunities arise.

The *Bicycle Master Plan* identifies several Tier 1 projects as having the highest priority. Table 12 shows the status of implementing these high-priority projects.

Table 12: Status of Tier 1 Bikeway Projects

Project	From	To	Bikeway	Length (mi)	Status
2nd Avenue / Wayne Avenue	Spring Street	Georgia Avenue	Separated Bike Lanes	0.5	Complete
Arlington Road	Old Georgetown Road	Bradley Boulevard	Separated Bike Lanes	0.7	Not yet started
Bethesda Trolley Trail	Battery Lane	Rugby Avenue	Off-Street Trail	0.1	Complete
Broadbirch Drive	Tech Road	Cherry Hill Road	Separated Bike Lanes	0.7	Not yet started
Capital Crescent Trail Breezeway	Woodmont Avenue	Elm Street Park	Off-Street Trail	0.2	Partially funded
Cherry Hill Road	Prosperity Drive	Prince George's County	Separated Bike Lanes	1.3	Partially funded and In design
City of Rockville to Friendship Heights Breezeway (via Bethesda Trolley Trail, Woodmont Avenue and MD 355)	Rockville Pike	Woodglen Drive	Separated Bike Lanes	0.1	Not yet started
	NIH Property Line	Battery Lane	Off-Street Trail	0.1	Development condition
	Battery Ln	Old Georgetown Road	Separated Bike Lanes	0.5	Not yet started
	Old Georgetown Road	Strathmore Street	Separated Bike Lanes	0.5	Partially funded and partially complete
Dixon Avenue	Wayne Avenue	Georgia Avenue	Separated Bike Lanes	0.3	Funded
Edgemoor Lane	Exeter Road	Arlington Road	Neighborhood Greenway	0.2	Not yet started
Edgemoor Lane	Arlington Road	Bethesda Metrorail Station	Separated Bike Lanes	0.2	Not yet started
Fenton Street	Ellsworth Drive	Wayne Avenue	Separated Bike Lanes	0.1	Funded
Fenton Street	Wayne Avenue	King Street	Separated Bike Lanes	0.6	Funded
Friendship Boulevard	Willard Avenue	District of Columbia	Separated Bike Lanes	0.2	Not yet started
Glenmont to Silver Spring Breezeway (via Amherst Avenue)	Blueridge Avenue	University Boulevard	Separated Bike Lanes	0.2	In design
	University Boulevard	Windham Lane	Separated Bike Lanes	0.7	In design
Glenmont to Silver Spring Breezeway (via Fenton Street)	Planning Department	Cameron Street	Separated Bike Lanes	0.3	Complete
	Cameron Street	Ellsworth Drive	Separated Bike Lanes	0.5	Funded
Grandview Avenue	Blueridge Avenue	University Boulevard	Separated Bike Lanes	0.1	In design
	University Boulevard	Reedie Drive	Separated Bike Lanes	0.2	In design
Life Sciences Center Loop	Key West Avenue	Great Seneca Highway	Separated Bike Lanes	1.1	Development condition
	Great Seneca Highway	Key West Avenue	Separated Bike Lanes	0.5	Funded
Marinelli Road	Executive Boulevard	Woodglen Drive	Separated Bike Lanes	0.2	Not yet started
	Rockville Pike	Nebel Street	Separated Bike Lanes	0.4	Partially complete and partially funded

Project	From	To	Bikeway	Length (mi)	Status
Medical Center Drive (Outer Side)	Great Seneca Highway	Key West Avenue	Separated Bike Lanes	0.5	Development condition
Montgomery Avenue	Wisconsin Avenue	East West Highway	Separated Bike Lanes	0.4	Partially complete
Montgomery Lane	Woodmont Avenue	Wisconsin Avenue	Separated Bike Lanes	0.1	Complete
Veirs Mill Road to White Oak Breezeway (via Cherry Hill Road)	Columbia Pike	Prosperity Drive	Separated Bike Lanes	0.1	Not yet started
Woodmont Avenue	Strathmore Street	Wisconsin Avenue	Separated Bike Lanes	0.1	Not yet started

Source: Transportation Planning Department analysis using Hybrid Network

Bicycle Parking

The availability of secure and convenient bicycle parking is an important factor for people who are considering a trip by bicycle. No matter how well connected the bikeway network is, many people will forgo bicycling if their destinations lack safe places to secure their bicycles. An adequate supply of bicycle parking encourages cycling while reducing theft and improper use of trees and street furniture for bicycle parking.

Whether they are traveling to work, school, shopping, or home, people must feel confident that their bicycles will not be stolen or vandalized when stored. The length of time that a bicycle will be parked largely determines the level of security that is needed. The longer the time period, the more secure the bicycle parking needs to be.

The following sections review bicycle parking at public facilities, such as schools, libraries, recreation centers, and transit stations. It should be noted that some of the information contained in this section has not been updated since the previous Travel Monitoring Report (2023), as more recent data are not available.

Industry Standards for Adequate Bicycle Parking

Industry-standard, short-term bicycle parking provides at least two points of contact to support a bicycle in an upright position and allows locking the frame and one or both wheels with a U-lock—which is more difficult to cut through than a cable lock or chain. The image below, from Silver Creek Middle School, shows an example of an adequate form of short-term bicycle parking—an "inverted-U" rack.

Other bicycle racks, such as the undulating (or "wave") racks and the schoolyard (or "wheel bender") racks shown in the images below, provide only one point of contact with a bicycle, and, thus, do not meet industry standards. Most bicycle parking at public facilities in the county are one of these two types of inadequate racks.

Long-term bicycle parking, usually for over two hours, similarly requires at least two points of contact, and is usually provided in a sheltered or enclosed space that provides additional security. It includes bicycle lockers or secured, shared spaces—such as a bicycle room or cage.

Adequate: Silver Creek Middle School Bicycle Racks

Inadequate: Garrett Park Middle School (left) and Walter Johnson High School (right) Bicycle Racks

Bicycle Parking at Public Facilities

Schools, Libraries, and Recreation Centers

A study conducted in 2016 for the *Bicycle Master Plan*, updated in 2022 for this report, compared the availability of bicycle parking spaces at each school, public library, and recreation center with the estimated need for bicycle parking.

As shown in Table 13, the 2022 update found that only 652 of 4,432 bicycle spaces at these public facilities adhere to industry standards, such as "inverted-U" racks. While there are more bicycle parking spaces today than in 2016, most racks still do not provide adequate safety or ease of use. However, some progress has been made. Today, almost 15% of all existing bicycle parking spaces meet industry standards; this is improved from about 11% of spaces in 2016.

Table 13: Existing Bicycle Parking Spaces at Public Facilities in 2022

Public Facility Type	Existing Spaces	Adequate Spaces	Inadequate Spaces
Elementary Schools	2,031	235	1,796
Middle Schools	1,075	242	833
High Schools	837	50	787
Public Libraries	190	54	136
Recreation Centers	299	71	228
Totals	**4,432**	**652**	**3,780**

Source: Planning Department 2022 inventory of bicycle parking at public facilities

To meet existing needs, 8,085 spaces need to be added or upgraded to comply with industry standards, as shown in Table 14. The second column provides a breakdown of industry-based estimates[7] for parking required at each type of facility, and the last column shows the total adequate bicycle spaces needed for each type of facility.

[7] The industry-based estimate of need is from the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines, 2nd Edition. It is based on 1 space per 20 students and 1 space per 8,000 square feet of gross floor area for libraries and recreation centers.

Table 14: Shortage of Bicycle Parking Spaces at Public Facilities in 2022

Public Facility Type	Industry Estimate of Need	Existing Adequate Spaces	Total Shortage of Adequate Spaces[8]
Elementary Schools	3,928	235	3,699
Middle Schools	1,994	242	1,776
High Schools	2,540	50	2,490
Public Libraries	86	54	58
Recreation Centers	84	71	62
Total	**8,632**	**652**	**8,085**

Source: Planning Department 2022 inventory of bicycle parking at public facilities

Bicycle Parking Stations

The *Bicycle Master Plan* recommends bicycle parking stations at all WMATA Metrorail Red Line stations, higher-demand MARC stations, and future Purple Line stations to increase the numbers of bicyclists traveling to these transit hubs. The Plan groups these recommendations into four tiers of implementation. Table 15 summarizes the status of the planned Tier 1 bicycle parking stations. Currently, two Tier 1 bicycle parking stations are advancing, including a 460-space station at the Bethesda South station and a 74-space station in downtown Silver Spring. In addition, the Strathmore Square development project is constructing a 100-space bicycle parking station at the Grosvenor Metrorail station, a Tier 2 recommendation.

Table 15: Status of Planned Tier 1 Bicycle Parking Stations at Transit Hubs

Station	Long-Term Spaces	Short-Term Spaces	Status
Bethesda South Station	330	130	Funded, 460 spaces
Forest Glen Station	300	100	Not yet started
Glenmont Station	400	150	Not yet started
Shady Grove Station	330	110	Not yet started
Silver Spring Station	600	170	In design, 74 spaces
Wheaton Station	400	100	Not yet started
North Bethesda Station	250	50	Not yet started

Source: Planning Department 2022 inventory of bicycle parking at public facilities

[8] Some schools have provided more existing adequate spaces than are required by industry standards, so the Total Shortage of Adequate Spaces is greater than simply the difference between Industry Estimate of Need and the number of Existing Adequate Spaces.

Bicycle Parking Provided Through Development and Capital Projects

As shown in Table 16, progress was made toward implementing short-term and long-term bicycle parking in the county. Between 2023 and 2024, over 300 short-term bicycle parking spaces were conditioned with development approvals and two spaces were installed by MCDOT. In addition, nearly 1,500 long-term bicycle parking spaces were conditioned with development approvals.

Table 16: Bicycle Support Facilities in 2023 and 2024

Bicycle Parking and Repair Stations	Conditioned with Development Approvals	Installed by MCDOT
Short-Term Bike Parking Spaces	313	2
Long-Term Bike Parking Spaces	1,475	0
Bicycle Repair Stations	6	0

Source: Planning Department analysis of development approvals and MCDOT installations

Grosvenor–Strathmore Metrorail Station

The Strathmore Square development project was required to provide at least 110 long-term and 50 short-term bicycle parking spaces at the Grosvenor – Strathmore Metrorail station and bus loop. The facility opened to the public in late 2023 and includes free, card-access bike parking for Metro riders.

Bicycle-Supportive Programs

The *Bicycle Master Plan* recommends 12 bicycle-supportive programs. Progress has been made in all of them (see Table 17).

Table 17: Status of Program Recommendations

Program Recommendation	Lead Agency	Progress	Status	Recommended Timeframe
2.1 Bikeways Program–Minor Projects: Fund Neighborhood Connectors	MCDOT	No change. The Bikeways Program—Minor Projects (507596) project includes funds that can be used to implement Neighborhood Connector projects, but this funding source has not been used to upgrade Neighborhood Connectors since the approval of the *Bicycle Master Plan*.	Ongoing	Short Term
2.2 Roadway- and Bikeway-Related Maintenance	MCDOT	On-road and shared-use path maintenance and clearance is performed by the Division of Highway Services and by the Urban Districts. Residents can also report maintenance and clearance issues through MC311.	Ongoing	Medium Term
2.3 Snow Removal/Wind/Rainstorms	MCDOT	The MCDOT Division of Highway Services has equipment to clear on-road, separated bike lanes. In addition, MCDOT Division of Highway Services clears 100 miles of sidewalk.	Ongoing	Medium Term
2.4 Resurfacing: Primary/Arterial and Sidewalk & Curb Replacement	MCDOT	As roadways and curbs are replaced, bikeways in the right-of-way are also refreshed.	Ongoing	Medium Term
3.1 BikeMontgomery Outreach Program	MCDOT		Ongoing	Medium Term
3.2 *Bicycle Master Plan* Monitoring Report	Planning	The third biennial monitoring report will be published in November 2025.	Ongoing	Ongoing
3.3 Neighborhood Greenway Program	MCDOT	East Silver Spring Neighborhood Greenway is in design (funded through BIPPA 501532). McComas Ave Neighborhood Greenway is at final design (Wheaton BiPPA 502002).	Ongoing	Short Term
3.4 Bicycle Parking Program	MCDOT	Bikeways Minor (507596) and BiPPA General (501532) fund approximately 25 racks annually.	Ongoing	Short Term
3.5 Public School Bicycle Education	MCPS	No updates	Ongoing	Medium Term
3.6 Bicycle Facility Education	MCDOT	No updates	Ongoing	Short Term
3.7 Bicycle Count Program	MCDOT	Two additional automated counters are expected to be installed in 2025. Annual hand counts are completed at over 100 locations every fall.	Ongoing	Short Term
3.8 *Countywide Wayfinding Plan*	MCDOT	Hurdles with the State and the Manual on Uniform Traffic Control Devices continue to persist. MCDOT continues to meet with SHA to seek resolution.	Partially Complete	Medium Term

Source: Planning Department analysis

Program 3.2: *Bicycle Master Plan* Biennial Monitoring Report

The second *Bicycle Master Plan* Biennial Monitoring Report, 2023–2024, was published in September 2025.

The 2023–2024 *Bicycle Master Plan* Biennial Monitoring Report

Bicycle-Supportive Legal and Policy Framework

The *Bicycle Master Plan* recommends 22 bicycle-supportive legal and policy recommendations. Substantial progress has been made in all of them (see Table 18).

Table 18: Status of Policy Recommendations

Policy Recommendation		Lead Agency	Progress	Status	Recommended Timeframe
2.1	Authorize Lower Posted Speed Limits	MCG	Lower default Target Speeds per Complete Streets were signed into law on November 7, 2022.	Complete	Ongoing
2.2	Repeal the Mandatory Use Law (requires bicyclists to ride in marked bike lanes)	MCG	Not currently a legislative priority.	Not yet started	Ongoing
2.3	Conduct a "Rules of the Road" Assessment	Multiple	Not currently a priority.	Not yet started	Short Term
2.4	Replace the State's Marked Bike Lane Policy	MCG	While the state's marked bike lane policy remains in effect, MDOT/SHA's Context Driven 1.0 guide permits protected bicycle lanes to be evaluated in areas defined as urban contexts (Bethesda, Rockville, Silver Spring and Wheaton).	Partial	Ongoing
2.5	Develop a County Policy on E-Bikes	MCG	No updates	Partial	Short Term
2.6	Establish Level of Traffic Stress Targets	Planning / MCDOT	Established in Growth and Infrastructure Policy for development projects on November 16, 2020. Not yet established for capital projects.	Partial	Short Term
2.7	Update Context-Sensitive Road Design Standards	MCDOT	MCDOT is advancing updates to the Chapter 49 Executive Regulations.	Ongoing	11/2019
2.8	Compare All Designed Projects Against Best Practices	MCDOT	The Seven Locks Road and Bradley Boulevard bikeway projects have been updated. The update to the Falls Road bikeway is on hold due to fiscal capacity limits.	Ongoing	Short Term
2.9	Make Separated Bikeways the Preferred Bikeway Facility Type	MCDOT	The Complete Streets Design Guide was completed in 2021. It includes recommendations to make separated bike lanes and sidepaths the default bikeway type on all street types except neighborhood streets (Neighborhood Connectors, Neighborhood Streets, and Neighborhood Yield Streets).	Complete	Short Term
2.10	Extending Separated Bike Lanes Through Intersections	MCDOT	The Complete Streets Design Guide Version 1.2 was approved in April 2024.	Complete	Short Term

Policy Recommendation		Lead Agency	Progress	Status	Recommended Timeframe
2.11	Consolidate Driveways along Master-Planned Bikeways	MCG	No updates	Ongoing	Short Term
2.12	Develop a Shared Lane Marking Policy	MCDOT / SHA	No updates	Not Yet Started	Short Term
2.13	Develop Bicycle Parking Standards for County Facilities	MCDGS	*The Montgomery County, Maryland Building Design Standards: Planning, Design & Construction of Public Facilities, Version 2020-7*, requires the use of "U" racks on county properties.	Complete	Short Term
2.14	Reassess Road Code Urban Area Boundaries	Planning	The *Pedestrian Master Plan* was approved by the County Council on 10/10/2023 and identifies Downtowns and Town Centers throughout the County.	Complete	Short Term
2.15	Establish Standards for Trail Crossings at Major Roads	MCDOT / Parks / SHA	Complete	Ongoing	Short Term
2.16	Develop Protocols for Bicycle Facility Closures and Detours	MCDOT	Bill 38-19 signed into law on March 27, 2020 requires the Executive to adopt regulations regarding permits to close shared-use paths in the public rights-of-way, among other things.	Complete	Short Term
2.17	School Site Selection	MCPS		Not Yet Started	Short Term
2.18	Enable Traffic Calming and Access Restrictions on Neighborhood Greenways	MCDOT	MCDOT staff has determined that this policy change is not needed.	Complete	Short Term
2.19	Update the Zoning Code (Bicycle Parking Requirements)	Planning	ZTA 19-08 was adopted by the Council on July 21, 2020.	Complete	Short Term
2.20	Revise the Bicycle to School Policy	MCPS	MCPS principals retain the authority to determine when students can bicycle to school.	Not Yet Started	Short Term
2.21	Abandonments	MCDOT	No action is necessary.	Complete	Short Term
2.22	Loading Zones	Planning	The Curbside Management Project is funded and will commence in spring 2025.	Partial	Short Term

Source: Planning Department analysis

Recommendations

Bicycle Parking at Public Facilities

Based on a 2022 survey, over 8,000 bicycle parking spaces are needed at public schools, libraries, and recreation centers, with the greatest need at schools. As shown in Table 19, the estimated cost to upgrade and expand bicycle parking at these public facilities is under $3.3 million. While the cost of installing bicycle racks is high, another challenge will be identifying appropriate places to install them.

Table 19: Estimated Cost to Address Bicycle Parking Needs at Public Facilities

Facility Type	Bicycle Racks Needed	Estimated Cost[9]
Elementary Schools	3,699	$1,450,000
Middle Schools	1,776	$686,000
High Schools	2,490	$1,142,000
Public Libraries	58	$7,000
Recreation Centers	62	$8,000
Total	**8,085**	**$3,294,000**

Source: Planning Department analysis

To prioritize investments in bicycle parking, Planning Department Staff conducted additional analysis to determine the schools with the greatest need. Priority criteria are included in the following list, and all data are from 2022 unless otherwise noted.

- Above average bicycle-to-school rates (determined by a Planning Department survey administered to all schools in fall 2019).
- Above average shortage of industry-standard bicycle parking spaces.
- No existing industry-standard bicycle parking spaces.
- No bicycle parking installed since 2016.

[9] Cost includes the "replacement" of inadequate existing racks and the installation of "new" racks to meet calculated need. Cost calculation estimates that "replacement" racks do not need new concrete pads; only "new" racks would require installation of concrete pads.

The 15 schools meeting all the criteria are listed in the table below—first by school type, then by highest "Bike-to-School" rate. Estimated costs to install the bicycle parking are included in the table.

Table 20: Highest Priority Schools for Bicycle Parking Upgrades with Estimated Costs

School Type	School Name	Title I/Focus or High FARMS Rate	Bike-to-School Rate (2018)	Shortage of Adequate Bicycle Parking Spaces	Estimated Cost
Elementary School	Dr. Ronald A. McNair	N	6.2%	32	$3,000
Elementary School	Glenallen	Y	5.8%	38	$18,000
Elementary School	Bells Mills	N	5.4%	32	$11,000
Elementary School	Poolesville	N	4.6%	28	$12,000
Elementary School	Sligo Creek	N	3.9%	34	$20,000
Elementary School	Olney	N	3.1%	32	$8,000
Middle School	Thomas W. Pyle	N	8.3%	76	$24,000
Middle School	Silver Spring International	Y	4.4%	54	$28,000
Middle School	North Bethesda	N	3.8%	62	$23,000
Middle School	Rosa M. Parks	N	2.6%	48	$17,000
Middle School	Westland	N	2.0%	54	$13,000
High School	Bethesda-Chevy Chase	N	11.3%	124	$54,000
High School	Quince Orchard	N	3.2%	90	$49,000
High School	Walt Whitman	N	3.0%	112	$26,000
High School	Walter Johnson	N	2.0%	114	$40,000
Total	**N/A**	**N/A**	**N/A**	**930**	**$346,000**

Source: Planning Department analysis

Recommendation: Over the next two years, prioritize funding to upgrade bicycle parking at the following schools: Dr. Ronald A. McNair ES, Glenallen ES, Bells Mills ES, Poolesville ES, Sligo Creek ES, Olney ES, Thomas W. Pyle MS, Silver Spring International MS, North Bethesda MS, Rosa M. Parks MS, Westland MS, Bethesda-Chevy Chase HS, Quince Orchard HS, Walt Whitman HS, and Walter Johnson HS.

Importantly, many Title I/Focus schools or schools with high FARMS rates did not respond to the Planning Department's survey about bicycling to school. Therefore, there are no recorded bicycling-to-school rates for these schools. However, 10 of these schools met all other priority criteria and

should be considered for priority funding. The schools are listed in the table below, by school type, along with estimated costs.

Table 21: Priority Title I/Focus or Schools with High FARMS Rate and No Bike-to-School Rates Available

School Type	School Name	Title I/Focus or High FARMS Rate	Shortage of Adequate Bicycle Parking Spaces	Estimated Cost
Elementary School	Rolling Terrace	Y	36	$16,000
Elementary School	Stedwick	Y	36	$22,000
Elementary School	South Lake	Y	34	$20,000
Elementary School	Arcola	Y	32	$17,000
Middle School	Roberto W. Clemente	Y	60	$26,000
Middle School	Forest Oak	Y	48	$23,000
Middle School	Eastern	Y	50	$21,000
Middle School	White Oak	Y	50	$21,000
Middle School	Sligo	Y	48	$5,000
High School	Gaithersburg	Y	124	$60,000
Total	**N/A**	**N/A**	**518**	**$231,000**

Source: Planning Department analysis

Recommendation: Over the next six years, prioritize funding to upgrade bicycle parking at the following Title I/Focus schools and schools with high FARMS rates: Rolling Terrace ES, Stedwick ES, South Lake ES, Arcola ES, Roberto W. Clemente MS, Forest Oak MS, Eastern MS, White Oak MS, Sligo MS, and Gaithersburg HS.

Furthermore, while MCDOT may be the most qualified agency to install bicycle parking, it is firmly the role of MCPS to install these facilities. Currently, MCPS does not have a separate funding source for bicycle parking. Therefore, upgrades to bicycle parking usually occur when a school is newly constructed, renovated, or expanded and not necessarily where the greatest need exists.

Recommendation: Provide MCPS with an annual funding program for installing bicycle parking.

When MCPS installs bicycle parking, it sometimes installs out-of-date “wave” style racks.

Recommendation: MCPS should develop bike rack standards that correspond with standards identified in Montgomery County’s zoning code.

High-Priority Bicycle Parking Stations

The *Bicycle Master Plan* recommends bicycle parking stations at all WMATA Metrorail Red Line stations, higher-demand MARC stations, and future Purple Line stations to increase the number of bicyclists traveling to these transit hubs. Currently, bicycle parking stations are funded at the Bethesda Metrorail and Purple Line station and Silver Spring Transit Center. A developer is also constructing a bicycle parking station at the Grosvenor Metrorail station. An additional bicycle parking station should be placed at the Glenmont Metrorail station, because it is in an Equity Focus Area, has a large catchment area as an end-of-the-line station, and is already connected to much of the surrounding community by low-stress bicycling.

Recommendation: Develop the organizational capacity to operate bicycle parking stations at the Bethesda Purple Line station and Silver Spring Transit Center and construct a bicycle parking station at the Glenmont Metrorail station to expand the reach of transit.

Chapter 5: Pedestrian Master Plan

Background

Implementing the *Pedestrian Master Plan* is an opportunity to make walking safer, more comfortable, more convenient, and more equitable by improving policy and programming, prioritizing infrastructure investments, and insisting on pedestrian-oriented design in all Montgomery County communities. The plan lays out the specific steps the county should take to eliminate the barriers to walking that have developed since the 1950s. Through ideas big and small, the plan knits together communities with new sidewalks, safe street crossings, and direct pedestrian routes. The plan connects people to where they learn, shop, play, and work in ways that are difficult to imagine today. It will make walking a viable option to nearby schools, shops, parks, and businesses for people who don't feel they have that choice today.

The *Pedestrian Master Plan* requires the Planning Department to produce a biennial monitoring report to track plan implementation and progress the county is making toward targets in various pedestrian-related metrics. This Transportation Monitoring Report document satisfies this requirement and provides pedestrian-related recommendations for the Planning Board and County Council to further implement the plan.

Goals and Objectives

The *Pedestrian Master Plan* envisions a county where walking and rolling are safe, comfortable, convenient, and accessible for pedestrians of all ages and abilities. To achieve the vision, the plan outlines four goals:

1. Increase Walking Rates and Pedestrian Satisfaction
2. Create a Comfortable, Connected, Convenient Pedestrian Network
3. Enhance Pedestrian Safety
4. Build an Equitable and Just Pedestrian Network

Each goal has several objectives outlined below. Each objective has a target value the county is striving to achieve, as well as data points indicating the progress the county has made doing so.

In some cases, new data were not available to update the metric. In these situations, the most current objective data are provided.

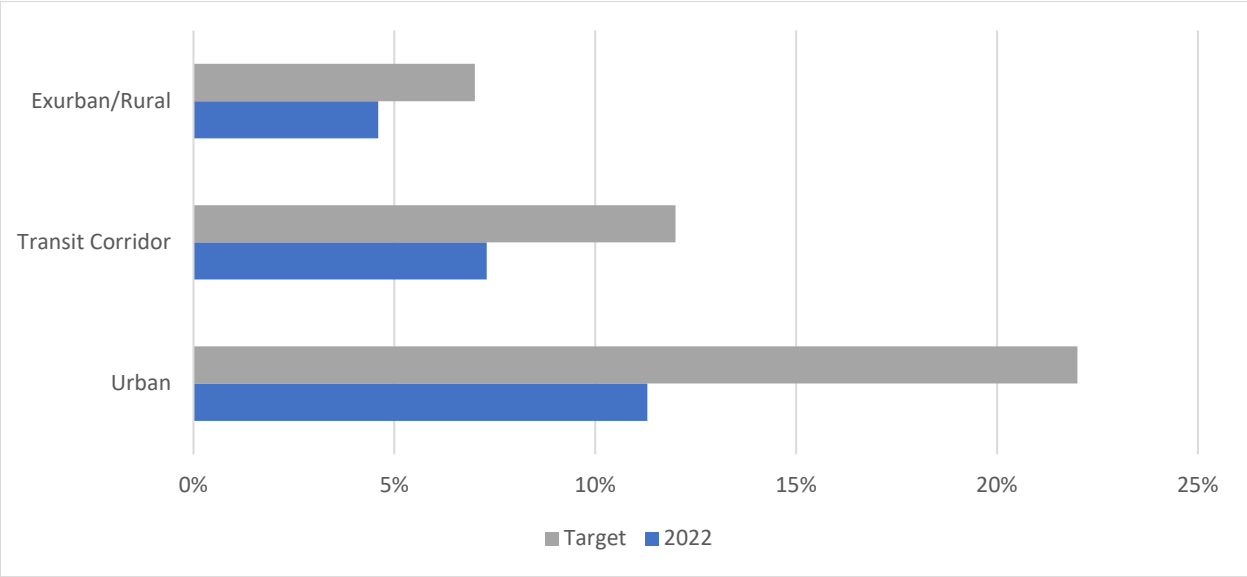
Goal 1: Increase Walking Rates and Pedestrian Satisfaction

Making it easier and safer to walk across the county will allow walking to be a viable option for more people in their daily lives. High rates of walking are associated with improved health, lower greenhouse emissions, and a vibrant economy. Improved pedestrian access is also vital to promote economic development in the county. As a result, an important measure of success for the *Pedestrian Master Plan* is the extent to which walking rates and pedestrian satisfaction increase in Montgomery County.

Pedestrian trips as a percentage of all trips (Objective 1.1) (MWCOG Regional Travel Survey)

These data come from the Metropolitan Washington Council of Governments Regional Travel Survey, which has not been updated since 2018. As of 2022, no land-use type has a share of pedestrian trips that reaches targets set in the *Pedestrian Master Plan*.

Figure 23: Pedestrian Trips as a Percentage of All Trips (Objective 1.1)

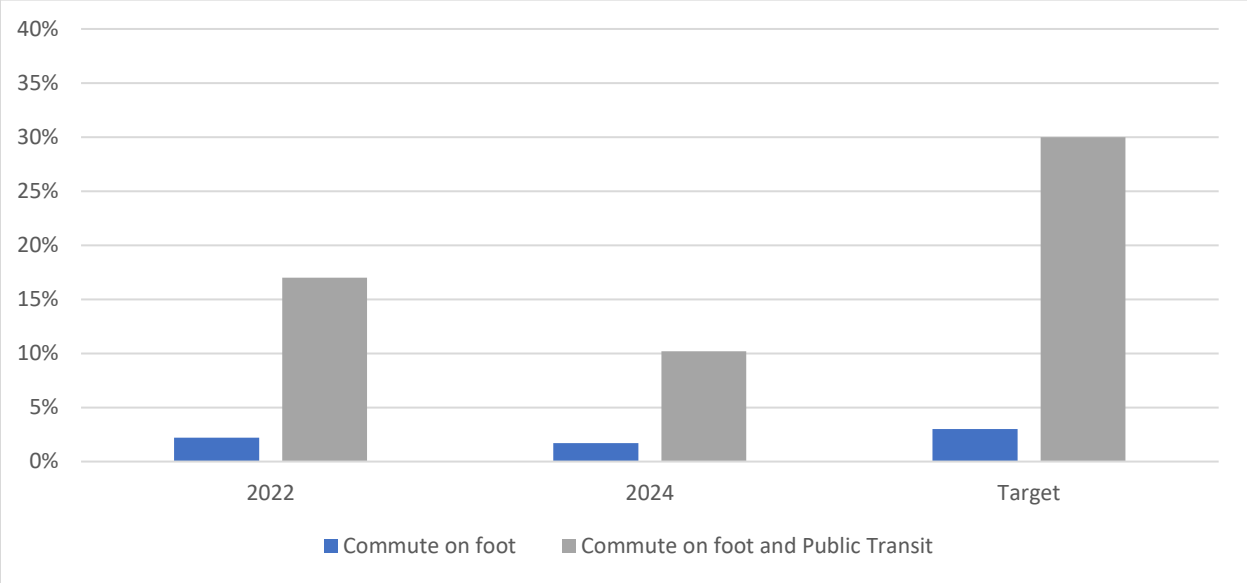


Source: MWCOG Regional Travel Survey 2017–2018

Percentage of residents who commute on foot (including the use of public transportation) (Objective 1.2) (US Census ACS 5-year Means of Transportation to Work 2019–2023)

Since 2022, the share of people in Montgomery County who walked to work dropped from 2.2% to 1.7%. In addition, the percentage of residents who took public transportation to work dropped from 17% in 2022 to 10.2% in 2024. This suggests that the change in these metrics may be the continued fallout from changing commute requirements and patterns in the aftermath of the COVID-19 pandemic. Since the survey represent the preceding five years, 2022 results may be higher, as they reflect more of the pre-COVID-19 travel behavior, whereas the 2024 results reflect mostly post-COVID-19 travel behavior.

Figure 24: Percentage of Residents Who Commute on Foot (Including to Public Transportation) (Objective 1.2)

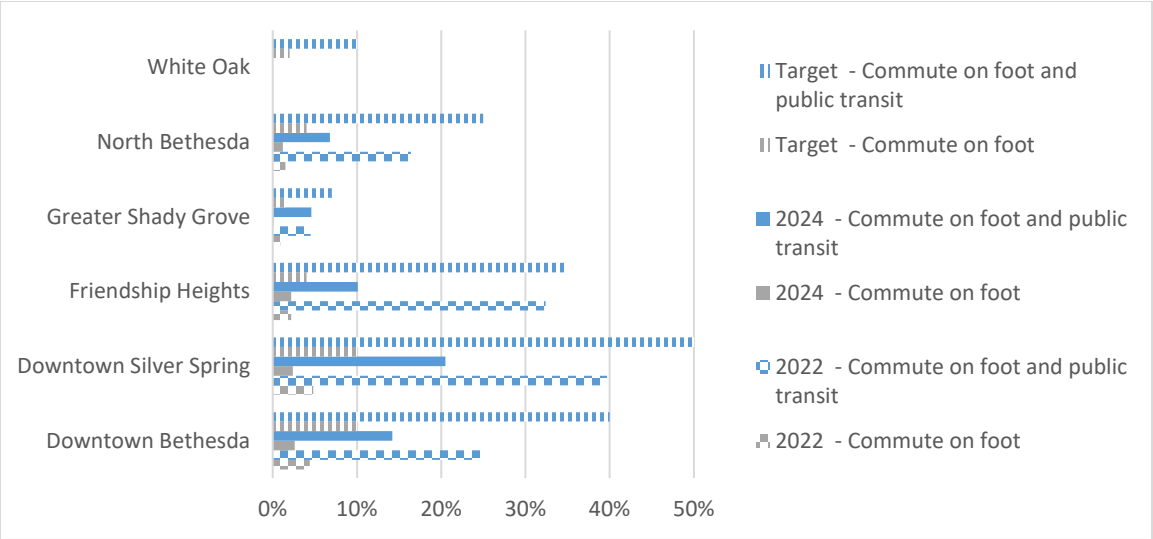


Source: U.S. Census ACS 2019–2023 "Means of Transportation to Work"

Percentage of TMD employees who commute on foot or using public transportation (Objective 1.3) (TMD Commuter Surveys FY 20 and FY 23)

Similarly, surveys of employees in the county's Transportation Management Districts have generally shown a decrease in pedestrian and public transportation mode share between 2022 and 2024.

Figure 25: Percentage of Transportation Management District Employees Who Commute on Foot or Using Public Transportation (Objective 1.3)



Source: TMD Commuter Surveys (FY20 and FY23)

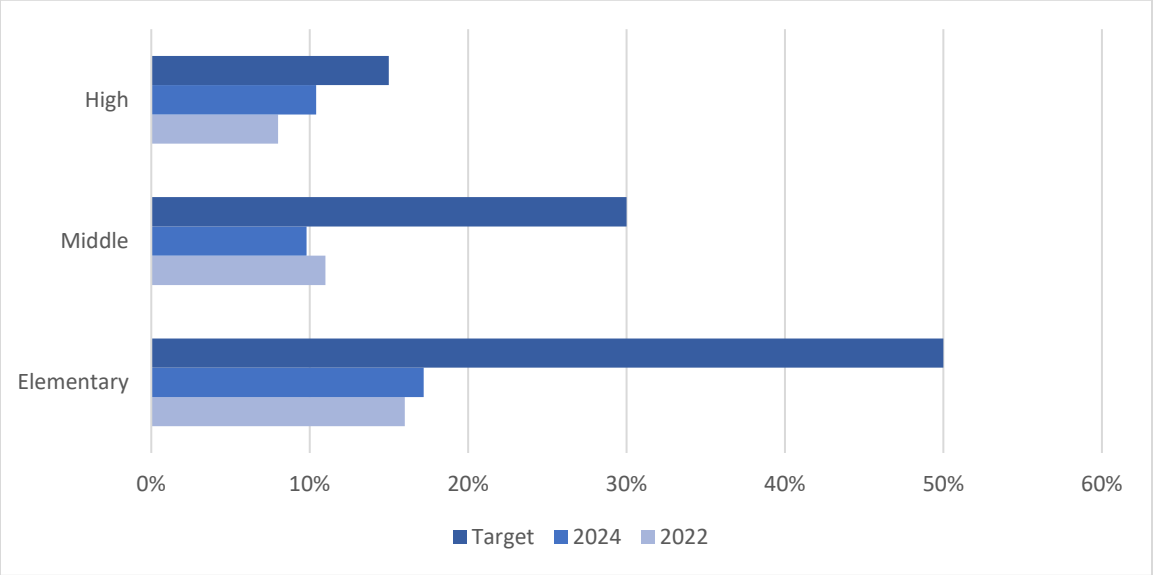
Percentage of transit riders arriving at a public transportation station on foot (Objective 1.4)

No recent surveys were conducted for the Metrorail Red Line or MARC Brunswick Line.

Percentage of MCPS students walking or using public transportation to arrive at or depart from school (Objective 1.5 and Objective 1.6) (MCPS Student Travel Tallies for 2019 and Spring 2024)

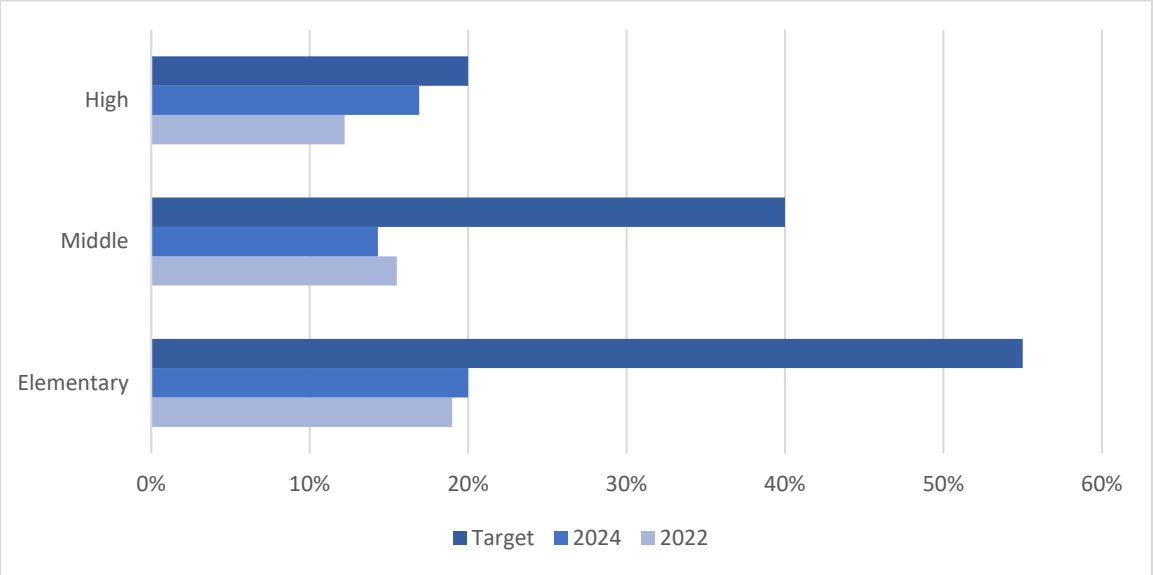
Between 2019 and 2024, pedestrian and public transportation mode share increased at the elementary and high school levels, while decreasing for middle school students. In 2019, pedestrian mode share generally decreased from elementary to middle to high school. In 2024, this is no longer the case. Elementary school students are still the most likely to walk, but now, high school student pedestrian mode share exceeds middle school pedestrian mode share, even though high schools tend to be located farther from student homes than middle schools are.

Figure 26: Percentage of MCPS Students Walking or Using Public Transportation to Arrive at School (Objective 1.5)



Source: MCPS Student Travel Tally (2019, Spring 2024)

Figure 27: Percentage of MCPS Students Walking or Using Public Transportation to Depart from School (Objective 1.6)

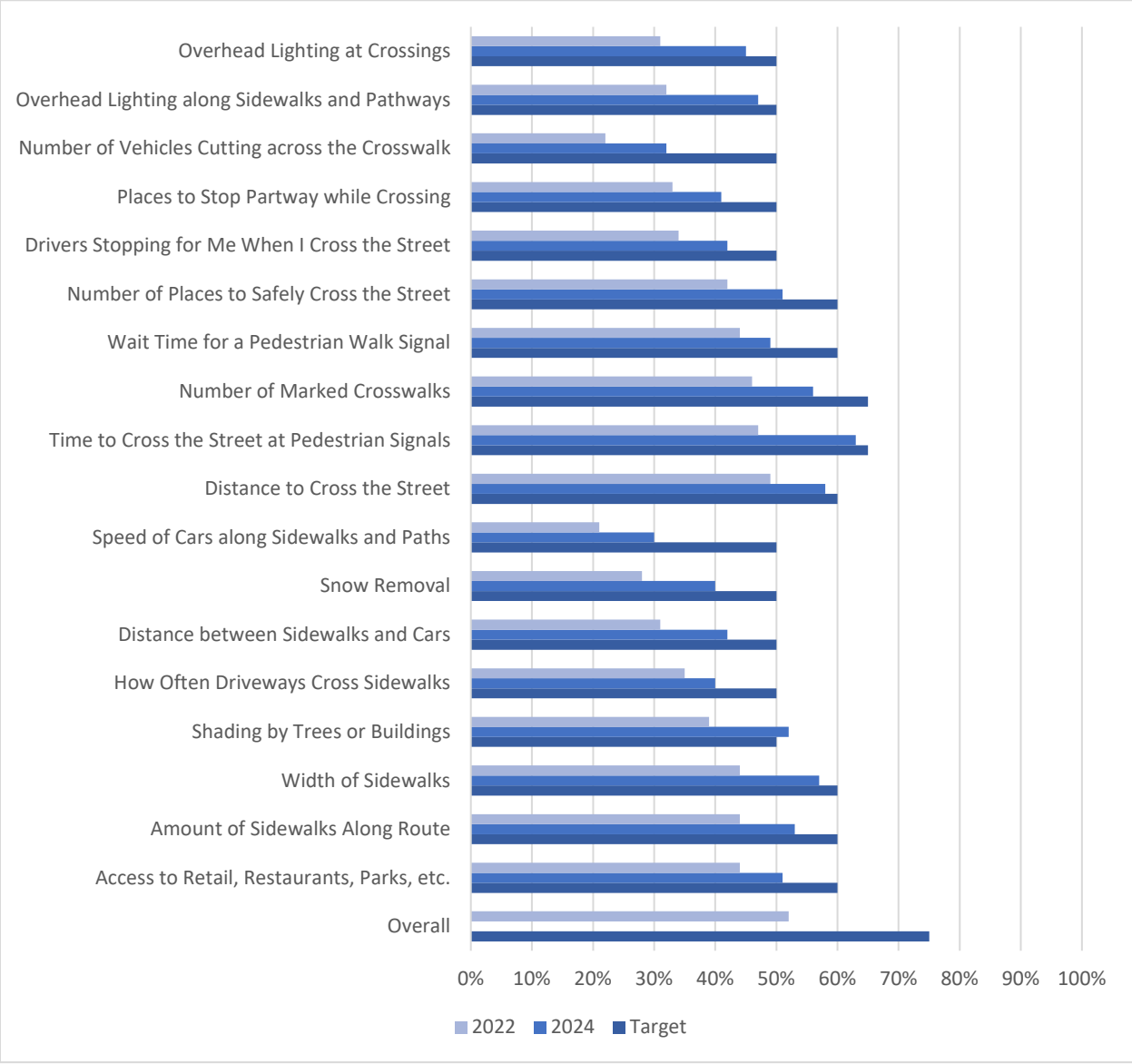


Source: MCPS Student Travel Tally (2019, Spring 2024)

Satisfaction with elements of the pedestrian experience (Objective 1.7)

Between 2022 and 2024, satisfaction with specific elements of the pedestrian experience in Montgomery County has improved. Respondents were more satisfied with every aspect of their experience. On some topics, like the width of sidewalks, the 2024 metric is nearing the target value. The 2024 survey did not ask respondents to rate their overall pedestrian satisfaction, but this question will be added for the next Travel Monitoring report.

Figure 28: Satisfaction with Elements of the Pedestrian Experience (Objective 1.7)



Source: 2022/24 Countywide Pedestrian Survey

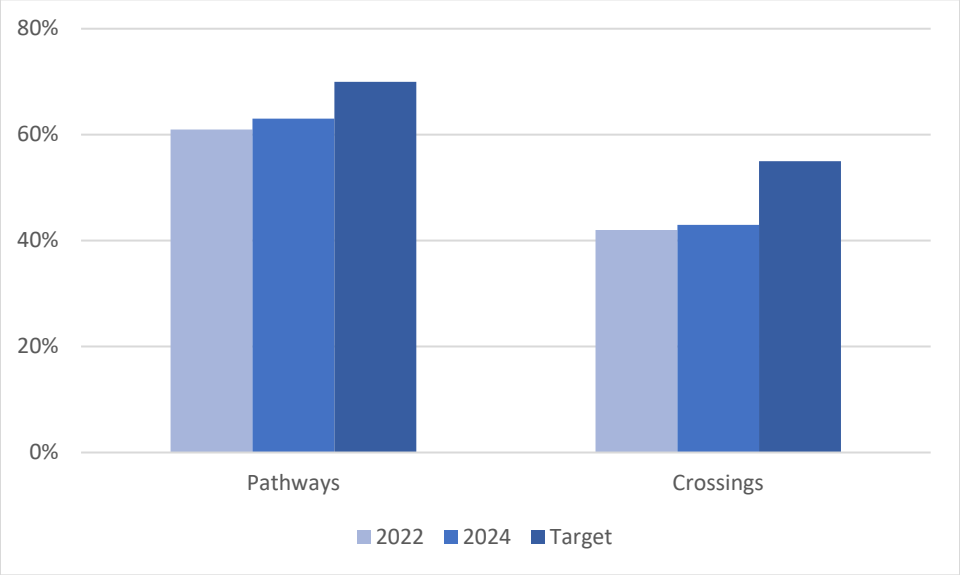
Goal 2: Create a Comfortable, Connected, Convenient Pedestrian Network

County residents, employees, and visitors will have a comfortable pedestrian experience, whether they are walking for recreation, to work, or for other purposes. Improving the pedestrian network can be achieved by building new pathways or reconstructing old ones, reducing vehicular travel speeds along and across pedestrian routes, and increasing separation between pedestrians and motor vehicles, among other things.

Miles of comfortable pathways and crossings in Montgomery County divided by length of all pathways and crossings in Montgomery County (Objective 2.1)

The percentage of comfortable pathways in Montgomery County has continued to increase, up two percent since 2022. At the same time, the percentage of comfortable crossings inched up from 42% to 43%, moving slightly closer to the targets.

Figure 29: Comfortable Pedestrian Connectivity to Public Schools (Objective 2.1)

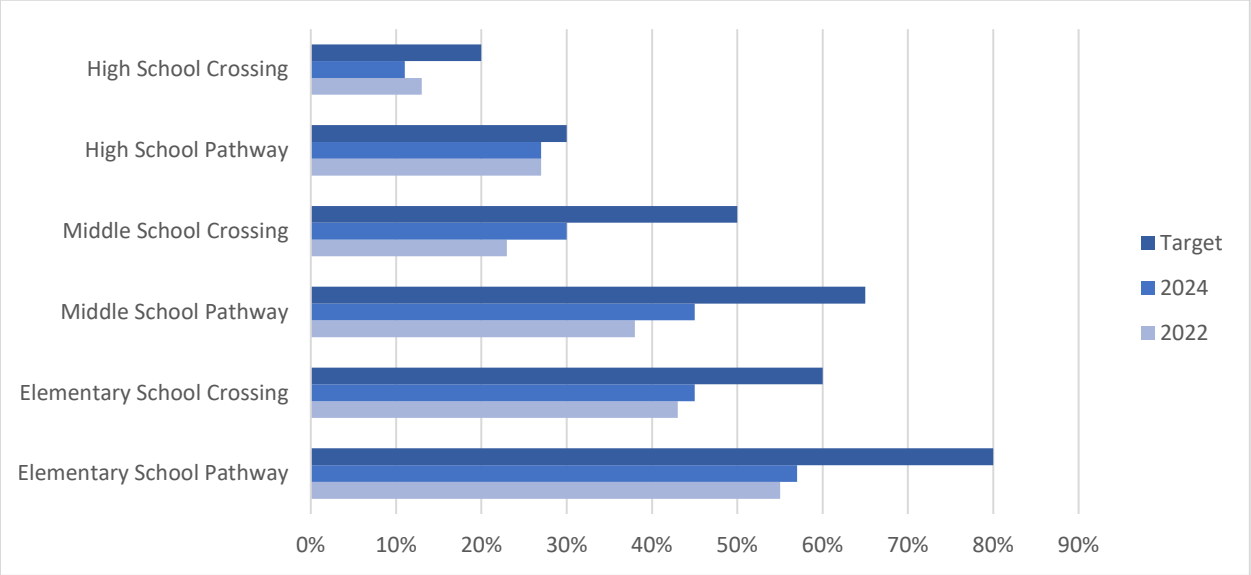


Source: Transportation Planning Department analysis using PLOC Network

Percentage of pedestrian trip lengths that are comfortable within a certain distance of schools (Objective 2.2)

As the percentage of pathways that are comfortable countywide has increased (described immediately above), the percentage of comfortable trips to elementary, middle, and high schools along those pathways has similarly increased. Crossing comfort to elementary and middle schools has also increased, although there was a small decrease at the high school level.

Figure 30: Percentage of Pedestrian Trip Lengths That Are Comfortable within a Certain Distance of Schools (Objective 2.2)

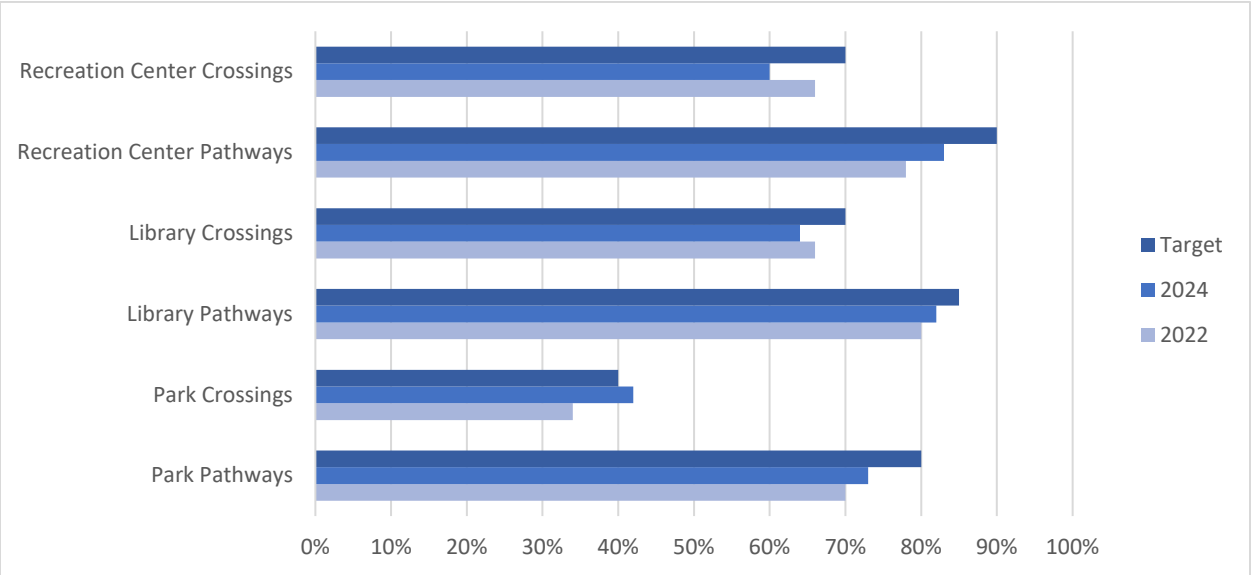


Source: Transportation Planning Department analysis using PLOC Network

Percentage of pedestrian trip lengths that are comfortable within a certain distance of parks, libraries, and recreation centers (Objective 2.3)

The percentage of trips to these destinations along comfortable pathways has increased from 2022 to 2024. At the same time, crossing comfort to parks has increased, while crossing comfort to libraries and recreation centers has decreased.

Figure 31: Percentage of Pedestrian Trip Lengths That Are Comfortable within a Certain Distance of Parks, Libraries, and Recreation Centers (Objective 2.3)

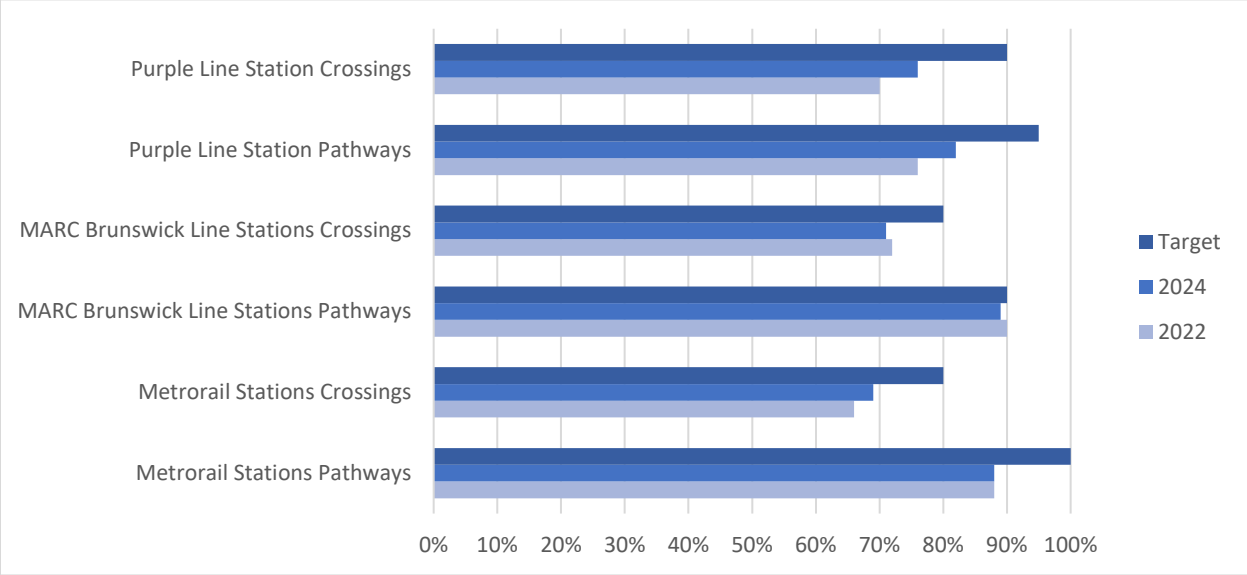


Source: Transportation Planning Department analysis using PLOC Network

Percentage of pedestrian trip lengths that are comfortable within a certain distance of transit stations (Objective 2.4)

There have been modest changes in comfortable access to transit stations since 2022. Notably, comfortable access to Purple Line stations has increased in the past two years. This is due to pedestrian, bicycle, and intersection improvement projects being completed in preparation for the

Figure 32: Percentage of Pedestrian Trip Lengths That Are Comfortable within a Certain Distance of Transit Stations (Objective 2.4)

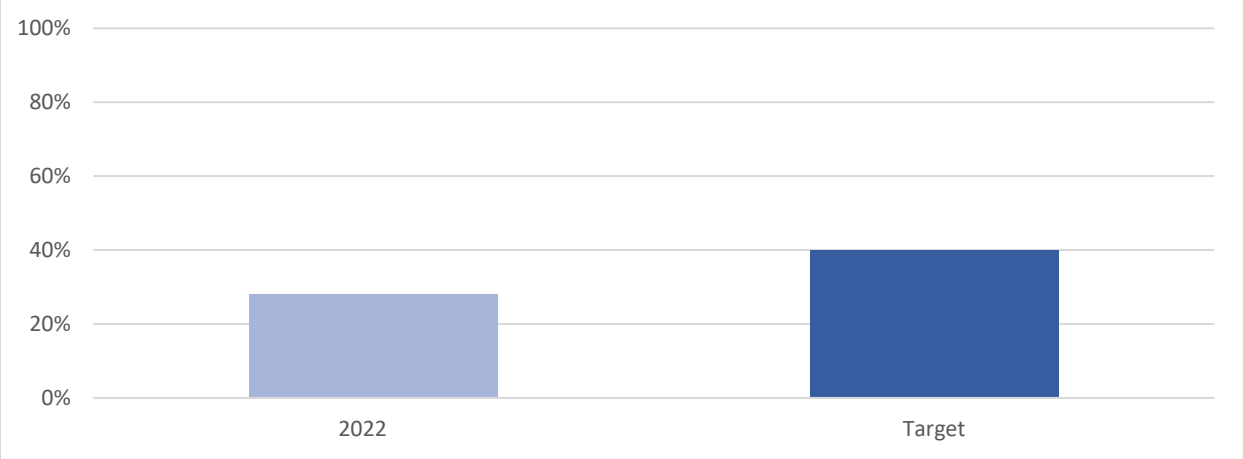


Source: Transportation Planning Department analysis using PLOC Network

Percentage of sidewalks that are shaded by tree canopy (Objective 2.5)

No new data sources were available to update this analysis. 2022 data demonstrate that the existing conditions were well below the target.

Figure 33: Percentage of Sidewalks That Are Shaded by Tree Canopy (Objective 2.5)



Source: PLOC Linework and UVA Tree Canopy data from 2020

Goal 3: Enhance Pedestrian Safety

Montgomery County has a goal of eliminating transportation-related fatalities and severe injuries by 2030. This "Vision Zero" policy starts with the ethical belief that everyone has the right to move safely in their communities.

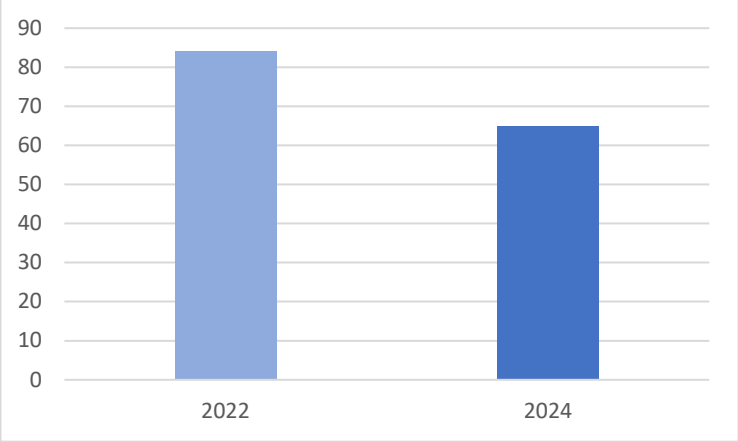
Pedestrian fatalities and severe injuries (Objective 3.1) (County Crash Data)

Pedestrian fatalities and severe injuries have decreased from 2022 to 2024, though they remain well above the county's Vision Zero goal of zero.

Percentage of respondents satisfied or very satisfied with personal safety while walking (Objective 3.2)

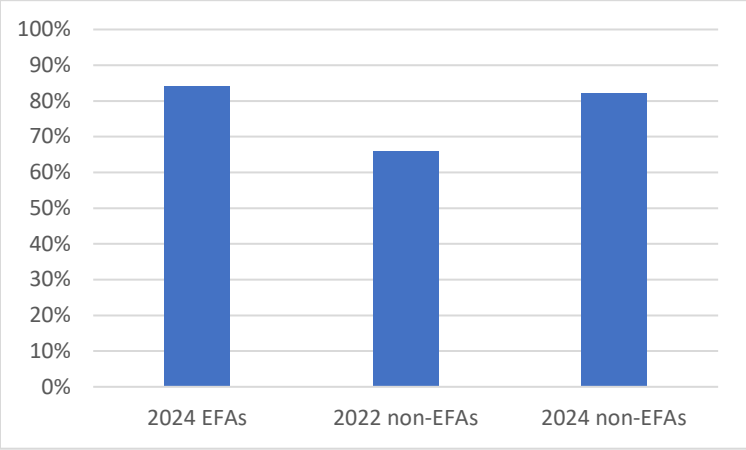
Respondent satisfaction with personal safety while walking is largely unchanged between 2022 and 2024.

Figure 34: Number of Pedestrian Fatalities and Serious Injuries (Objective 3.1)



Source: 2022 and 2024 County Crash Data

Figure 35: Percentage of Respondents Satisfied or Very Satisfied with Personal Safety while Walking (Objective 3.2)



Source: 2022/24 Countywide Pedestrian Survey

Goal 4: Build an Equitable and Just Pedestrian Network

Providing community members with a pedestrian network that meets everyone's needs is a critical aspect of achieving the county's racial and social justice goals.

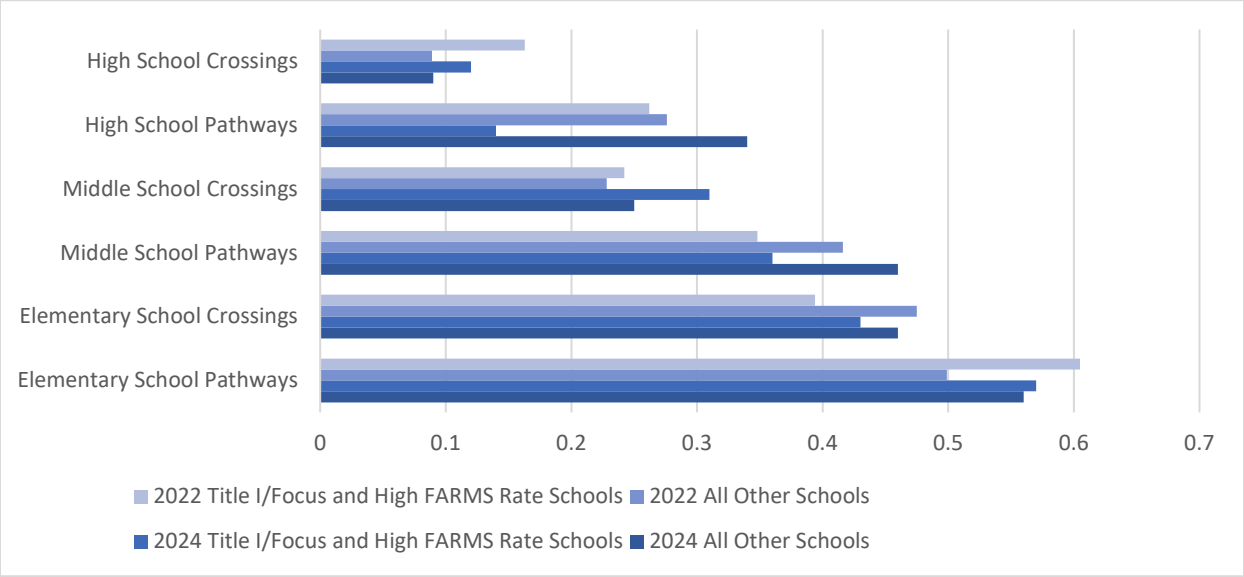
Percentage of sidewalks countywide with Americans with Disabilities Act faults (Objective 4.1)

To date, these data have not been collected.

Comparison of comfortable pathway/crossing connectivity to schools between designated and non-designated schools (Objective 4.2)

From 2022 to 2024, comfortable connectivity to schools that were not designated Title 1/Focus or High FARMs increased for both pathways and crossings, while comfortable connectivity to designated schools experienced more marginal improvements or even reductions. In sum, these changes have reduced disparities at the elementary school level while increasing them everywhere.

Figure 36: Comparison of Comfortable Pathway/Crossing Connectivity to Schools between Designated and Non-designated Schools (Objective 4.2)

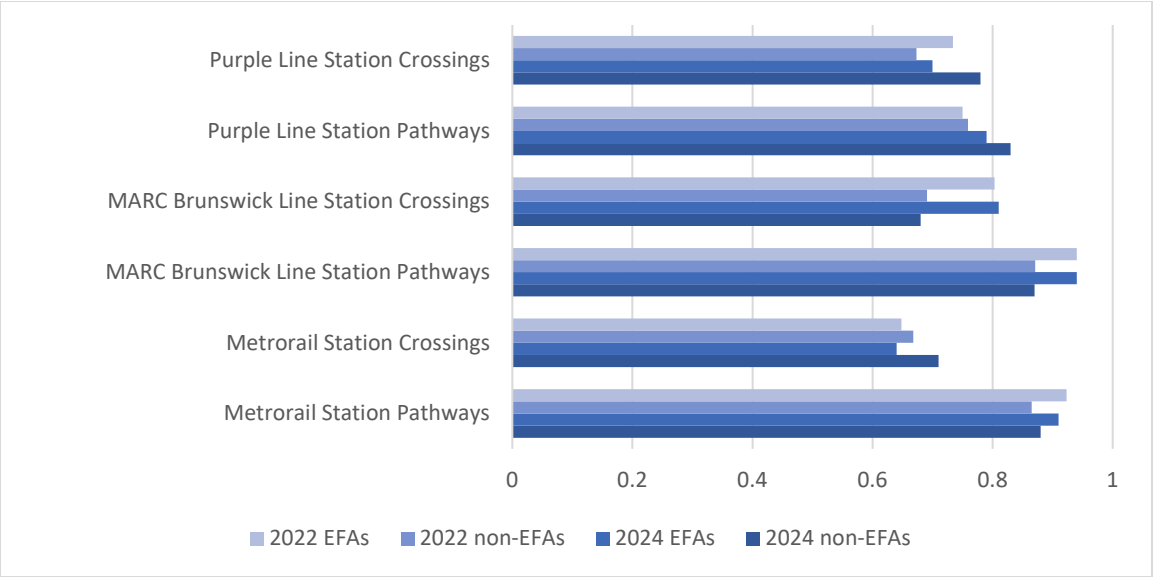


Source: Transportation Planning Department analysis using PLOC Network

Comparison of comfortable pathway/crossing connectivity to transit stations from EFAs and other areas (Objective 4.3)

The comfortable connectivity disparity between those in and out of EFAs improved between 2022 and 2024 for pathways to Metrorail stations. Disparities stayed essentially the same for the MARC Brunswick Line pathways and crossings but got worse for Metrorail crossings and Purple Line pathways and crossings.

Figure 37:Comparison of Comfortable Pathway/Crossing Connectivity to Transit Stations from EFAs and Other Areas (Objective 4.3)

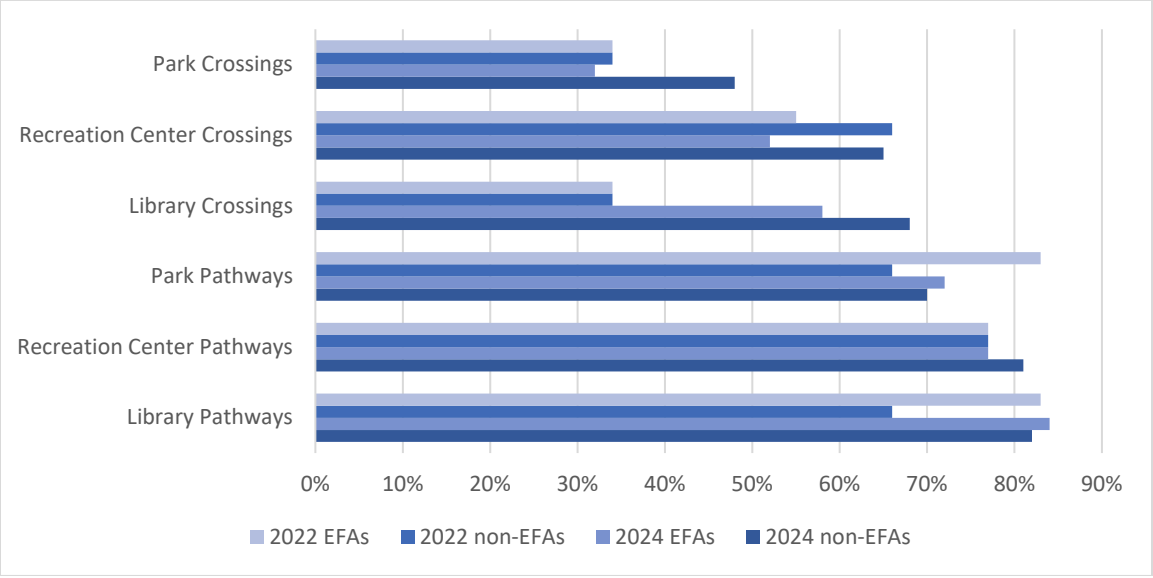


Source: Transportation Planning Department analysis using PLOC Network

Comparison of comfortable pathway/crossing connectivity to parks, libraries, and recreation centers from EFAs and other areas (Objective 4.4)

Comfortable pathway connectivity disparities between those in and out of EFAs improved for libraries and parks and slightly worsened for recreation centers. Crossing connectivity disparities increased between 2022 and 2024 with destinations outside EFAs continuing to be more comfortable to access and by larger margins.

Figure 38: Comparison of Comfortable Pathway/Crossing Connectivity to Parks, Libraries, and Recreation Centers from EFAs and Other Areas (Objective 4.4)

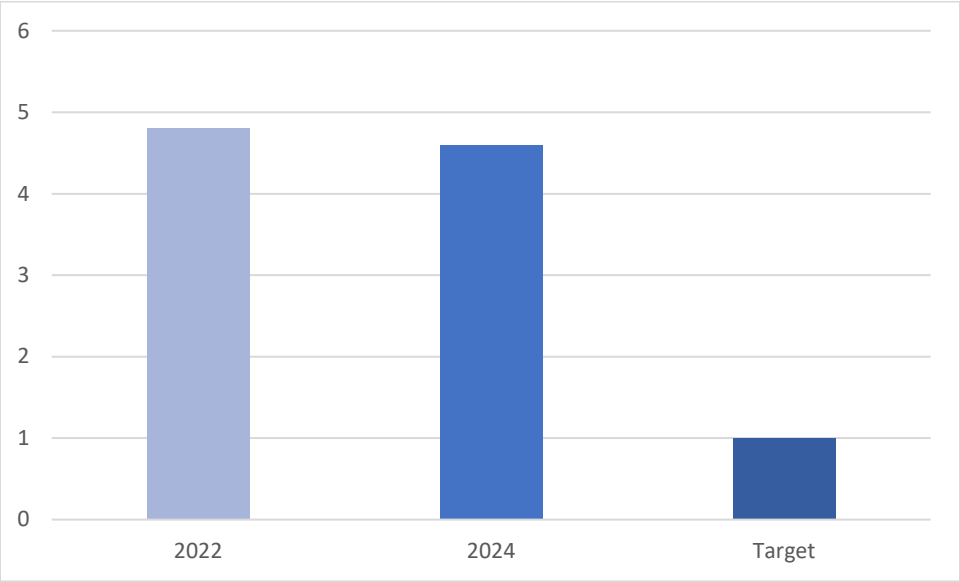


Source: Transportation Planning Department analysis using PLOC Network

Ratio of pedestrians killed or severely injured per mile of roadway inside EFAs compared with outside EFAs (Objective 4.5)

The pedestrian safety disparity between EFAs and the rest of the county improved between 2022 and 2024. Now, the ratio of severe injuries and fatalities per mile among pedestrians is 4.6 times higher in EFAs than in non-EFAs. This is down from 4.8 in 2022

Figure 39: Ratio of Pedestrians Killed or Severely Injured per Roadway Mile in EFAs Compared with Non-EFAs (Objective 4.5)



Source: County Roadway and Crash Data

Difference in overall pedestrian satisfaction between people with disabilities and those without (Objective 4.6)

In 2022, survey results indicated that overall satisfaction amongst pedestrians with a disability was 10% lower than pedestrians without one. These data were not collected in 2024.

2024 *Pedestrian Master Plan* Monitoring Report Card

Goal #1

Table 22: Goal #1 Increase Walking Rates in Montgomery County

Metric		2022	2024	Target	Source
Pedestrian Trips as a Percentage of All Trips	Overall	7.5%	--	12.0%	MWCOG Regional Travel Survey 2017–2018
	Urban	11.3%	--	22.0%	
	Transit Corridor	7.3%	--	12.0%	
	Exurban/Rural	4.6%	--	7.0%	
Percentage of Residents Who Commute on Foot (including by Transit)	Countywide	2.2% (17%)	1.7% (10.2%)	3.0% (30%)	U.S. Census ACS 2019–2023 "Means of Transportation to Work"
Percentage of Pedestrian (including Transit) Commuters to TMDs	Downtown Bethesda	4.4 (24.6)	2.6 (14.2)	10% (40%)	TMD Commuter Surveys (FY20 and FY23)
	Downtown Silver Spring	4.8 (39.7)	2.4 (20.5)	10% (50%)	
	Friendship Heights	2.2 (32.4)	2.2 (10.1)	4% (35%)	
	Greater Shady Grove	0.9 (4.5)	0.1 (4.6)	1.5% (7%)	
	North Bethesda	1.5 (16.4)	1.2 (6.8)	4% (25%)	
	White Oak	--	--	2% (10%)	
Percentage of People Walking to Access Transit	Red Line	--		50.0%	TBD
	Brunswick Line	--		10.0%	
	Purple Line	--		70.0%	
Percentage of Students Walking (Including to Transit) to School	Elementary	16% (16.7%)	17.2% (17.6%)	50% (55%)	MCPS Student Travel Tally (2019, Spring 2024)
	Middle	11% (12.5%)	9.8% (11.3%)	30% (35%)	
	High	8% (11%)	10.4% (14.6%)	15% (25%)	
Percentage of Students Walking (Including from Transit) from School	Elementary	19% (19.6%)	20% (20.3%)	55% (60%)	MCPS Student Travel Tally (2019, Spring 2024)
	Middle	15.5% (17.8%)	14.3% (16.4%)	40% (45%)	
	High	12.2% (20.8%)	16.9% (25.1%)	20% (35%)	
Pedestrian Satisfaction	Overall	52.0%	DNA	75.0%	

Metric		2022	2024	Target	Source
	Access to Retail, Restaurants, Parks, etc.	44.0%	51%	60.0%	2020 Countywide Pedestrian Survey
	Amount of Sidewalks Along Route	44.0%	53%	60.0%	
	Width of Sidewalks	44.0%	57%	60.0%	
	Shading by Trees or Buildings	39.0%	52%	50.0%	
	How Often Driveways Cross Sidewalks	35.0%	40%	50.0%	
	Distance between Sidewalks and Cars	31.0%	42%	50.0%	
	Snow Removal	28.0%	40%	50.0%	
	Speed of Cars along Sidewalks and Paths	21.0%	30%	50.0%	
	Distance to Cross the Street	49.0%	58%	60.0%	
	Time to Cross the Street at Pedestrian Signals	47.0%	63%	65.0%	
	Number of Marked Crosswalks	46.0%	56%	65.0%	
	Wait Time for a Pedestrian Walk Signal	44.0%	49%	60.0%	
	Number of Places to Safely Cross the Street	42.0%	51%	60.0%	
	Drivers Stopping for Me When I Cross the Street	34.0%	42%	50.0%	
	Places to Stop Partway while Crossing	33.0%	41%	50.0%	

Metric		2022	2024	Target	Source
	Number of Vehicles Cutting across the Crosswalk	22.0%	32%	50.0%	
	Overhead Lighting along Sidewalks and Pathways	32.0%	47%	50.0%	
	Overhead Lighting at Crossings	31.0%	45%	50.0%	
	Personal Safety	--	53.0%		
	Pedestrian Signage and Wayfinding	--	54.0%		
	Access to Buildings without Crossing Parking Lots	--	37.0%		

Goal #2

Table 23: Goal #2 Create a Comfortable, Connected, Convenient Pedestrian Network in Montgomery County

Metric		2022	2024	Target	Source
Comfortable Connectivity	Pathway Comfort	61%	63%	70%	PLOC Network
	Crossing Comfort	42%	43%	55%	
		Pathway/Crossing			
Comfortable Pedestrian Access to Destinations (Pathway/Crossing)	Elementary Schools	55%/43%	57%/45%	80%/60%	
	Middle Schools	38%/23%	45%/30%	65%/50%	
	High Schools	27%/13%	27%/11%	30%/20%	
	Regional Parks	70%/35%	73%/42%	80%/40%	
	Red Line	88%/66%	88%/69%	100%/80%	
	Brunswick Line	90%/72%	89%/71%	90%/80%	
	Purple Line	76%/70%	82%/76%	95%/90%	
	Libraries	80%/66%	82%/64%	85%/70%	
	Recreation Centers	78%/66%	83%/60%	90%/70%	
Percentage of Sidewalks that are Shaded by Tree Canopy		28%	--	40%	2020 Planning Tree Canopy Data/ PLOC Network

Goal #3

Table 24: Goal #3 Enhance Pedestrian Safety in Montgomery County

Metric	2022	2024	Target	Source
Pedestrian Fatalities and Serious Injuries	84	65*	0	2019 County Crash Data
Percent of Respondents Satisfied or Very Satisfied with Personal Safety while Walking	52%	53.0%	75%	2020 Countywide Pedestrian Survey
Pedestrian Crashes	503	447*	N/A	2019 County Crash Data

Goal #4

Table 25: Goal #4 Build an Equitable and Just Pedestrian Network

Metric		2022		2024	Target	Source
Pathways Inaccessible to Persons with Disabilities		93.80%		--	0%	2020 MCDOT Sidewalk Condition Data
		Title I/Focus/High FARMS Designated Schools/Non-Designated Schools				
Comfortable Pedestrian Access to Schools (Title I/Focus/High FARMS Designated Schools vs. Non-Designated Schools)	Elementary Schools	Pathways	60%/50%	57%/56%	No Disparities	PLOC Network
		Crossings	47%/39%	46%/43%	No Disparities	
	Middle Schools	Pathways	35%/2%	36%/46%	No Disparities	
		Crossings	23%/24%	25%/31%	No Disparities	
	High Schools	Pathways	27%/28%	14%/34%	No Disparities	
		Crossings	9%/16%	9%/12%	No Disparities	
Comfortable Pedestrian Access to Destinations (EFA vs. Non-EFA)	Purple Line	Pathways	75%/76%	79%/83%	No Disparities	PLOC Network
		Crossings	73%/67%	70%/78%	No Disparities	
	Red Line	Pathways	92%/87%	91%/88%	No Disparities	
		Crossings	65%/67%	64%/71%	No Disparities	
	Brunswick Line	Pathways	94%/87%	94%/87%	No Disparities	
		Crossings	80%/69%	81%/68%	No Disparities	
	Regional Parks	Pathways	71%/69%	72%/70%	No Disparities	
		Crossings	36%/35%	32%/48%	No Disparities	
	Libraries	Pathways	80%/79%	84%/82%	No Disparities	
		Crossings	61%/67%	58%/68%	No Disparities	
	Recreation Centers	Pathways	83%/77%	85%/81%	No Disparities	
		Crossings	48%/65%	52%/65%	No Disparities	
Ratio of Severe Injuries and Fatalities per Mile in EFAs vs. Non-EFAs			4.8	4.6	1	2019 County Crash Data
Difference in Pedestrian Satisfaction between People with and without Disabilities			10%	DNA	0%	2020 Countywide Pedestrian Survey

Pedestrian-Supportive Design, Policy, and Programming Recommendations

The *Pedestrian Master Plan* identifies 106 key actions broken out into five themes: Build, Maintain, Protect, Expand Access, and Fund.

Status of Build Recommendations

Progress has been made in 18 of the Build recommendations (see Table 26).

Table 26: Status of Build Recommendations

Recommendation		Lead Agency	Progress	Status
B-1a	Pivot the Annual Sidewalk Program from a reactive, request-driven process to an equitable, data-driven process.	MCDOT	The MCDOT Sidewalk Program has begun using a data-driven tool to prioritize requests but is not proactively constructing sidewalks based on data-driven analysis. There is an effort to develop and pilot new processes.	Ongoing
B-1b	Reimagine public engagement for sidewalk construction to ensure that community members can share valuable local perspectives while pedestrian safety and connectivity improvements are not delayed.	MCDOT	No change.	Not yet started
B-1c	Require all new public buildings, as well as major renovations, to design and construct bikeways and walkways along their frontage as recommended in master plans and the CSDG, as well as to dedicate rights-of-way where required.	MCPS, MCDGS	No change.	Not yet started
B-1d	Require that new and reconstructed sidewalks achieve at least a "somewhat comfortable" rating using the Pedestrian Level of Comfort (PLOC) tool.	Planning, MCDOT	No change.	Not yet started
B-1e	Explore use of temporary materials to create dedicated pedestrian spaces where sidewalks are not feasible.	MCDOT	Continuing to be implemented as part of new projects and as resources permit.	Ongoing
B-1f	Document deviations from Complete Streets Design Guide streetscape default widths where applicable.	Planning, MCDOT, MCPS	No change.	Not yet started
B-1g	Update state curb height standards to 6" in areas with pedestrian activity.	SHA	No change.	Not yet started
B-2a	Make pedestrian recall the default configuration for signalized intersections in Downtowns and Town Centers and adjacent to rail and bus rapid transit stations, schools, parks, major trail crossings, and community centers.	MCDOT, SHA, Municipalities	Most locations in Downtowns have ped recall. Remaining areas are continuing to be implemented as part of new projects and as resources permit.	Ongoing

Recommendation		Lead Agency	Progress	Status
B-2b	Continue to evaluate passive detection to eliminate the need for pedestrians to press a button to safely cross the street in areas where pedestrian recall is not desirable.	MCDOT, SHA	There are some passive detection options that have been in use, but substantial implementation will be dependent on available resources.	Ongoing
B-2c	Develop criteria for "Barnes Dance" pedestrian signalization.	MCDOT	MCDOT is drafting new standards for diagonal crossings and "Barnes Dance" crossings.	Ongoing
B-2d	Reduce the number of intersections with permissive left turns along Major Highways, Downtown Boulevards, Downtown Streets, Town Center Boulevards, Town Center Streets, and Boulevards to improve safety, in line with findings from the Predictive Safety Analysis.	MCDOT, SHA	MCDOT has several CIP items (P507154 - Traffic Signals, P500333 - Pedestrian Safety, P507017 - Intersection and Spot Improvements) that address intersection improvements, including signalization and phasing changes.	Ongoing
B-3a	Update state and county design standards to reflect a preference for perpendicular curb ramps aligned with the crosswalk.	MCDOT, SHA	The MCDOT Accessible Design Guide reiterated this preference from the CSDG.	Complete
B-3b	Update the CSDG to establish ladder-style, high-visibility crosswalks as the default crosswalk design in Montgomery County.	MCDOT	Multiple design guides establish this. Updates to Ch. 49 Regulations expected in next Register update, afterward will be transmitted to Council. Note that SHA has not adopted Ladder crosswalks.	Ongoing
B-3c	Construct raised crossings across all driveways and at intersections between residential street types (Neighborhood Streets and Neighborhood Yield Streets) and higher classification streets through capital projects and as a requirement for private development.	MCDOT, SHA, Municipalities	At-grade crossings across driveways are sought by MCDOT in all applicable projects, though these comments do not always appear to survive Regulatory Review + Planning Board. Raised crossings where Neighborhood (Yield) Streets intersect with other roads have not yet been widely adopted.	Ongoing
B-3d	Provide marked crosswalks and Accessible Pedestrian Signals at all legs of an intersection where there are connecting sidewalks or comfortable streets.	MCDOT, SHA, Municipalities	No change.	Not yet started
B-3e	Consider a modification of Maryland Code §21-502 to indicate that the driver of a vehicle must stop for pedestrians waiting to cross the street, not just those already in the crosswalk.	State Delegation	No change.	Not yet started
B-3f	Crosswalk markings and associated curb ramps should be at least as wide as the sidewalks and trails they connect on either side.	MCDOT, SHA, Municipalities	Crosswalk markings are being included in all applicable projects. Ramp standards updated by Accessible Design Guide and as part of ongoing standards updates.	Ongoing
B-4a	Use master planning processes to focus growth in Downtowns, Town Centers,	Planning, Municipalities	No change.	Ongoing

Recommendation		Lead Agency	Progress	Status
	and along Growth Corridors to expand walkable places in the county.			
B-4b	Locate schools and other public buildings to prioritize providing safe and direct pedestrian access.	MCPS, MCDGS	No change.	Not yet started
B-4c	Encourage MCPS to revise minimum acreage requirements for school sites and consider co-location opportunities to facilitate smaller school footprints that are better integrated into adjacent communities.	MCPS	No change	Not yet started
B-4d	Update the CSDG to include a Growth Corridor overlay to provide additional context-based guidance on crossings and target speeds.	Planning, MCDOT	The Public Hearing Draft of the *Master Plan of Highways and Transitways—2025 Technical Update* includes a recommendation to create a new Growth Corridor area type and Growth Corridor Boulevard street type.	Ongoing
B-4e	Promote redevelopment to create a grid of streets and alleys along transit corridors with block sizes based on the protected crossing spacing standards in the CSDG.	Planning, MCDOT, SHA	Planning staff continue to explore opportunities for additional street connections as part of regulatory applications.	Ongoing
B-4f	Develop and implement a comprehensive pedestrian wayfinding system for the county.	MCDOT, Municipalities	No change	Not yet started
B-4g	Provide public seating, restrooms, and other pedestrian amenities in Downtowns, Town Centers, and priority park locations and along Boulevards.	Planning, Parks, MCDOT, Municipalities, Urban Districts	No change	Not yet started
B-4h	Update horizontal alignment standards in Chapter 50 of the County Code.	Planning, MCDOT	No change	Not yet started
B-5a	Develop lighting standards for each street type and trails.	Planning, MCDOT	MCDOT has updated the county's lighting policy by adopting the Streetlighting Design Requirements, Installation Procedures, and Specifications, which has context-specific requirements for different street types and trails. The updated lighting policy is now the basis for the Local Area Transportation Review illuminance test, so private development projects are designing and installing high-quality lighting as part of their regulatory requirements.	Complete
B-5b	Update the site lighting section of the Zoning Code to encourage pedestrian-scale lighting in context-appropriate areas of the county.	Planning, MCDOT	No change	Not yet started
B-5c	Conduct a survey of lighting conditions countywide.	MCDOT	No change	Not yet started

Recommendation		Lead Agency	Progress	Status
B-6a	Develop strategies to improve shading along sidewalks with a focus on adding shade in Equity Focus Areas (EFAs).	Planning, MCDOT, SHA	No change	Not yet started
B-6b	Reinvigorate the county's street tree planting program to greatly increase native canopy tree planting within the right-of-way, especially in areas like EFAs with poor canopy coverage.	MCDOT, CE, CC	No change	Not yet started
B-6c	Study and compare how different surface materials, colors, and other streetscape elements can mitigate urban heat island effects, including information on cost, maintenance, and longevity of materials, as well as identifying standards to encourage effective implementation.	Planning, MCDOT	Montgomery Planning published the *Downtown Silver Spring Cool Streets Guidelines* in 2022. The document includes material specifications and other information. At this time, the document recommendations have not been adopted for other plan areas or in the county code.	Ongoing
B-7a	Increase funding for the Annual Sidewalk Program and other related Capital Improvements Program efforts, including the Bus Stop Improvement capital funding program, to address missing, broken, or substandard sidewalks and other infrastructure.	CE, CC	No change	Not yet started
B-7b	Create a new Capital Improvements Program project to build, reconstruct, and resurface master-planned pedestrian shortcuts, Neighborhood Connector pedestrian/bike paths, and other pedestrian connections.	CE, CC	No change	Not yet started
B-7c	Create a new Capital Improvements Program project to build pedestrian and bicycle connections to parkland.	CE, CC	No change	Not yet started
B-7d	Preserve paper streets and other rights-of-way if they could potentially provide future pedestrian connectivity benefits, like pedestrian shortcuts.	Planning, MCDOT, CC	This master plan recommendation provides justification for not abandoning rights-of-way that provide pedestrian connectivity benefits.	Ongoing
B-7e	Update development standards to require or incentivize new developments to connect to nearby sidewalks and trails that exist or may be built in the future.	Planning, MCDOT, Municipalities	No change	Not yet started
B-7f	Consider a program with financial and technical support to Homeowners Associations, Condominium Associations, and commercial properties for providing pedestrian connections through their property and reconfiguring existing parking lots to be more pedestrian friendly.	DHCA, CE, CC, CCOC	No change	Not yet started
B-7g	Include off-site pedestrian and bicycle access improvements to transit stations as part of the main capital project or through a parallel effort.	MCDOT, SHA, CC	The US-29 Bus Rapid Transit project is planning potential pedestrian and bicycle improvements along the corridor. Planning Staff have relied on this recommendation to press for	Ongoing

Recommendation		Lead Agency	Progress	Status
			these improvements to happen concurrently with the transit construction.	
B-8a	Develop a park access study to identify new pedestrian connections to and through parkland.	Parks	No change	Not yet started
B-8b	Use environmentally sensitive trail materials and construction approaches to provide pedestrian connections through parkland.	Parks	No change	Not yet started
B-8c	Write Forest Conservation Plans to allow accessible pedestrian pathways to make important connections and rewrite existing Forest Conservation Plans when opportunities arise to allow pathways where it would be beneficial for pedestrian connectivity.	Planning, DNR	No change	Not yet started
B-8d	Study lowering impervious surface caps in relevant Special Protection Areas (and other areas with impervious surface restrictions) to account for the perviousness of planned pedestrian pathways and bikeways.	Planning, MCDOT, CC	No change	Not yet started
B-8e	Prioritize construction of all required sidewalks and bikeways to standard dimensions for development projects in areas with impervious surface caps or other similar limitations.	Planning, MCDOT	No change	Not yet started
B-9a	Increase funding for traffic calming countywide to encourage a more proactive installation of traffic calming measures.	CE, CC	No change	Not yet started
B-9b	Use potential pedestrian demand instead of observed pedestrian volumes to decide whether or where to install pedestrian connectivity improvements.	MCDOT	Chapter 49 Draft Executive Regulations allow for the use of modeled demand instead of traffic counts in identifying whether a controlled crossing is warranted. Other uses for potential demand are not specified.	Ongoing
B-10a	Explore ways to formalize State Highway Administration incorporation of local master plans, policies, and standards for the design and operation of state highways in Montgomery County.	CE, State Delegation	No change	Not yet started
B-10b	Find opportunities to expedite the State Highway Administration's review of public and private projects.	CE, State Delegation	No change	Not yet started
B-11a	Develop a curbside management plan and pilot innovative approaches to curbside management.	Planning, MCDOT	The *Curbside Management Plan* is currently being led by MCDOT.	Ongoing

Source: Transportation Planning Department analysis

Status of Maintain Recommendations

Progress has been made in three of the Maintain recommendations (see Table 27).

Table 27: Status of Maintain Recommendations

Recommendation		Lead Agency	Progress	Status
MA-1a	Create a plan for proactively inspecting and repairing Montgomery County sidewalks and pathways equitably across the county, and track implementation.	MCDOT	MCDOT is using a sidewalk survey to prioritize fixes and repairs for critical maintenance issues.	Ongoing
MA-2a	Audit major county and state roadways seasonally for vegetation overgrowth and erosion that reduces the effective width of sidewalks, restricts sidewalk accessibility, and limits visibility. Any identified issues should be immediately addressed and monitored so they do not reoccur.	MCDOT	No change	Not yet started
MA-2b	Amend Montgomery County's snow clearance requirement to specify that property owners are required to clear a path at least five feet wide on pathways in the public right-of-way adjacent to their property.	CC	No change	Not yet started
MA-2c	Conduct outreach to property owners regarding their responsibility to keep sidewalks clear of parked cars, trash receptacles, overhanging vegetation, snow, and other obstructions.	DHCA	No change	Not yet started
MA-2d	Study the benefits and costs of assuming county responsibility for snow clearance along all Downtown Boulevards, Town Center Boulevards, Downtown Streets, Town Center Streets, and Bus Rapid Transit Corridors.	MCDOT	No change	Not yet started
MA-3a	Use repaving after utility work as a mechanism for upgrading crosswalks to a high-visibility design and the maintenance of other pavement markings as needed.	MCDOT, DPS	The Vision Zero Action Plan includes an item to utilize repaving, tree pruning, and other maintenance schedules to provide lane widths, pedestrian and bicycle infrastructure, and other safety countermeasures as described in the CSDG that will bring the design speed closer to the speed limit and clear sightlines and walking paths from overgrowth. This does not currently include utility work but is in the same spirit.	Ongoing
MA-4a	Streetlighting owners should publicize response improvement plans and track their progress.	MCDOT, Utilities	MCDOT is working to implement this as part of all new projects involving lighting within county rights of way.	Ongoing

Source: Transportation Planning Department analysis

Status of Protect Recommendations

Progress has been made in eight of the Protect recommendations (see Table 28).

Table 28: Status of Protect Recommendations

Recommendation		Lead Agency	Progress	Status
P-1a	Install speed governors or intelligent speed control devices in county and public agency vehicles to ensure that their drivers adhere to the speed limit.	Parks, MCPS, CE	No change	Not yet started
P-1b	Develop a strategy to purchase emergency vehicles that can navigate narrower streets and tighter curb radii while maintaining appropriate performance standards.	MCFRS	No change	Not yet started
P-1c	Consider developing legislation to create a new class of commercial driver's license required to operate vehicles with identified pedestrian safety and visibility issues.	State Delegation	No change	Not yet started
P-1d	Develop legislation to improve pedestrian and bicycle safety by implementing a knowledge test requirement as part of the driver's license renewal process.	State Delegation	No change	Not yet started
P-1e	Annually notify all county households of changes to traffic rules and regulations that have taken effect over the past year.	CE	No change	Not yet started
P-1f	Study requiring or incentivizing the use of pedestrian detection systems in vehicles registered in Montgomery County.	CE, CC	No change	Not yet started
P-2a	Develop a methodology for identifying and prioritizing implementation of new protected crossings at mid-block or uncontrolled locations based on roadway characteristics, motor vehicle speeds and volumes, proximity to bus stops, proximity to pedestrian attractors including parks and schools, pedestrian crash history, and other relevant criteria.	MCDOT, SHA	No change	Not yet started
P-2b	Establish standards for the distance between bus stops and the nearest protected crossing to encourage pedestrians to cross the street at safe locations.	MCDOT, SHA, WMATA	No change	Not yet started
P-2c	Make No Turn on Red the default in Downtowns and Town Centers and evaluated elsewhere on a case-by-case basis. Enforce this rule using automated enforcement approaches and additional traffic control devices as needed.	MCDOT, SHA, Municipalities	The Montgomery County Council passed the Safe Streets for All Act in 2023. This legislation includes No Turn on Red requirements for county-controlled intersections in Downtowns and Town Centers and within a certain distance of schools, parks, and community centers.	Ongoing
P-2d	Prioritize pedestrian crossings using Leading Pedestrian Intervals (LPIs) (or Leading Through Intervals) at signalized intersections along	MCDOT, SHA	The Montgomery County Council passed the Safe Streets for All Act in 2023. This	Ongoing

Recommendation		Lead Agency	Progress	Status
	Downtown Boulevards, Downtown Streets, Town Center Boulevards, and Town Center Streets. Everywhere else, implement LPIs within a certain distance of schools, parks, and community centers along those roadways. Ensure that Accessible Pedestrian Signals at locations with LPIs provide an audible signal to indicate when the pedestrian phase has commenced.		legislation includes LPI requirements for county-controlled intersections in Downtowns and Town Centers and within a certain distance of schools, parks, and community centers.	
P-2e	Reduce pedestrian wait times by developing a policy on target and maximum traffic signal cycle lengths by street type.	MCDOT	No change	Not yet started
P-2f	Update the CSDG and Executive Regulations to make pedestrian median refuges a high priority for intersections with six or more lanes, including through lanes, turning lanes, and auxiliary lanes.	MCDOT	No change	Not yet started
P-2g	Remove free flow channelized right turn lanes where roadway geometry allows and improve their design where it does not.	MCDOT, SHA	The MCDOT Accessible Design Guide recommends that new channelized right turn lanes should be avoided, and existing ones should be considered for removal. This is happening on a case-by-case basis across the county.	Ongoing
P-3a	Develop parking lot design standards that improve safety and reduce conflicts between pedestrians and motor vehicles.	Planning	Montgomery Planning is currently leading the Parking Lot Design Guidelines project that addresses this recommendation.	Ongoing
P-4a	Conduct pedestrian and bicycle safety educational programs in partnership with agencies such as MCPL, MCPS, and MCR.	MCDOT, MCPS, MCR, MCPL	No change	Not yet started
P-4b	Develop “traffic gardens” in several convenient locations across the county.	Parks, MCDOT, MCPS, MCR, MCPL, Municipalities	No change	Not yet started
P-4c	Integrate Safe Routes to School into the MCPS curriculum and day-to-day activities.	MCPS	No change	Not yet started
P-5a	Prioritize locations for additional school crossing guards and advocate for additional funding.	MCPD	No change	Not yet started
P-5b	Fund Walking School Buses* to reduce the number of students being driven to school.	MCPS	No change	Not yet started
P-5c	Develop and implement School Streets—partial roadway closures immediately adjacent to schools during arrival and dismissal—at several schools as a pilot.	MCDOT, MCPS	No change	Not yet started
P-5d	Develop and implement a countywide transportation demand management plan for schools addressing all school-related travel,	MCPS	No change	Not yet started

Recommendation		Lead Agency	Progress	Status
	including travel by students, parents, and staff members.			
P-5e	Identify walking and bicycling routes to school within each MCPS school catchment area and ensure that all students within the area can safely walk and bicycle to school.	MCDOT, MCPS	No change	Not yet started
P-6a	Implement the recommendations in the Access Management Study.	Planning, MCDOT, SHA, MCDPS	No change	Not yet started
P-7a	Paint lane markings to indicate the presence of minor streets along state highways in line with Maryland Manual on Uniform Traffic Control Devices guidance.	SHA	No change	Not yet started
P-7b	Ensure that vehicular stop bars are located at least four feet behind the crosswalk.	MCDOT, SHA	No change	Not yet started
P-7c	Where guardrails are installed next to sidewalks or trails, ensure that they are located between the pedestrian space and the roadway.	MCDOT, SHA	MCDOT is currently drafting new standards for railings at sidewalks.	Ongoing
P-8a	Increase the number of Automated Traffic Enforcement locations.	MCPD, CE, CC, State Delegation	The Montgomery County Council passed the Safe Streets for All Act in 2023. This legislation includes direction to plan for additional Automated Traffic Enforcement locations.	Ongoing
P-8b	Consider developing strategies for equitable in-person traffic enforcement activities.	MCPD, CE, CC, State Delegation	No change	Not yet started
P-9a	Support state legislation to allow jurisdiction-wide speed limit reduction.	State Delegation	The Montgomery County Delegation sponsored HB 0963 in the last legislative session, which would have authorized local authorities in Montgomery County to decrease the maximum speed limit on a highway without performing an engineering and traffic investigation. This bill passed the House but did not receive a vote in the Senate.	Ongoing
P-9b	Ensure that speed limits and observed speeds along county roads are in line with target speeds identified in the CSDG.	MCDOT, SHA	This is being implemented as part of new projects and as resources permit.	Ongoing

Source: Transportation Planning Department analysis

** A walking school bus is a group of children walking to and from school under the supervision of one or more adults, mimicking a traditional school bus with a planned route, designated stops, and a schedule*

Status of Expand Access Recommendations

Progress has been made in two of the Expand Access recommendations (see Table 29).

Table 29: Status of Expand Access Recommendations

Recommendation		Lead Agency	Progress	Status
EA-1a	Prioritize the repair of brick sidewalks that have identified accessibility challenges. Require new or rehabilitated brick sidewalks to be constructed using non-slip materials and with patterns, spacing, and installation methods designed to minimize disturbance for wheeled vehicles.	Planning, Urban Districts	No change	Not yet started
EA-1b	Saw cut sidewalk joints to minimize vibrations for pedestrians using mobility devices or pushing strollers.	MCDOT, SHA, DPS, Municipalities	No change	Not yet started
EA-1c	Strengthen existing regulations and the permitting process to ensure that utility cuts in sidewalks and legal crossings are quickly and appropriately repaired.	MCDOT, DPS	No change	Not yet started
EA-1d	Construct the pedestrian-clear zone in line with materials approved by MCDOT's Design Standards and Specifications.	Planning, MCDOT, DPS	No change	Not yet started
EA-2a	Identify and relocate permanent vertical obstructions (like utility poles) that result in pedestrian-clear zone widths that are not ADA compliant.	MCDOT, SHA, Utilities	No change	Not yet started
EA-2b	Move existing utility boxes and traffic signal control cabinets out of the sidewalk into the street buffer or underground. Ensure that new utility boxes and traffic signal control cabinets are not installed in the sidewalk.	MCDOT, SHA, Utilities	This is being implemented as part of new projects and as resources permit.	Ongoing
EA-2c	Provide additional on-street parking corrals for dockless vehicles in high-use areas and coordinate with operators to provide incentives to encourage their use.	MCDOT, Municipalities	No change	Not yet started
EA-3a	Lower the pedestrian walking speed standard at signalized intersections frequented by older pedestrians, younger pedestrians, and those with disabilities.	MCDOT, SHA	No change	Not yet started
EA-3b	Exclude the pedestrian crossing signal buffer interval when calculating pedestrian clearance times so that pedestrians have more time to safely cross the street.	MCDOT, SHA	No change	Not yet started
EA-4a	Identify and modify APS/Pedestrian Push Buttons in the county that are incorrectly installed or are inaccessible to wheelchair users.	MCDOT, SHA	No change	Not yet started
EA-4b	Ensure that every pedestrian push button has a light that informs pedestrians when the pedestrian phase has been triggered.	MCDOT, SHA	No change	Not yet started

Recommendation		Lead Agency	Progress	Status
EA-5a	Develop standards on the use of tactile walking surface indicators in the pedestrian and transit networks.	MCDOT	The MCDOT Accessible Design Guide provides standards for the use of tactile walking surface indicators in these contexts.	Complete
EA-5b	Provide subsidized orientation and mobility specialist and/or travel training sessions for those who may not be able to afford them.	CE	No change	Not yet started
EA-6a	Create a framework for natural surface trail accessibility to ensure that as many natural surface trails as possible are accessible to people with disabilities.	Parks	No change	Not yet started
EA-6b	Develop Accessible Sensory Trails in parks across Montgomery County.	Parks	No change	Not yet started
EA-7a	Modify the County Code and associated regulations to include additional accessibility requirements that address barriers to traveling to and through all commercial, residential, and institutional buildings for people with vision, hearing, cognitive, and other types of disabilities.	CC	No change	Not yet started
EA-8a	Pursue a modification to the Maryland Code clarifying that drivers, bicyclists, and scooter riders are required to yield the right of way to pedestrians on shared streets and that drivers are also required to yield to bicyclists and scooter riders.	State Delegation	No change	Not yet started
EA-8b	Develop streetery guidance that identifies appropriate locations, seating requirements, accessibility requirements, and other details. Conduct periodic inspections to verify compliance with this guidance.	MCDOT, DPS	No change	Not yet started
EA-9a	Consider requiring any construction worker who works in the public right-of-way to take ADA training and maintain ADA certification. Consider implementing penalties for observed ADA non-compliance during construction or maintenance that deviates from what was approved on right-of-way permits. Approved right-of-way permits should be easily accessible so members of the public can understand what has been approved.	MCDOT, DPS	No change	Not yet started
EA-9b	Publish approved Maintenance of Traffic plans in an easily accessible format.	MCDOT, DPS	No change	Not yet started

Source: Transportation Planning Department analysis

Status of Fund Recommendations

Progress has been made in one of the Fund recommendations (see Table 30).

Table 30: Status of Fund Recommendations

Recommendation		Lead Agency	Progress	Status
F-1a	Consider potential legislation to tie vehicle registration fees to safe vehicle design.	State Delegation	HB 0028, the Pedestrian Fatality Prevention Act of 2024, was intended to change the vehicle registration fee structure in a way that would implement this recommendation. The legislation did not make it out of the appropriate committee in the last session.	Ongoing

Source: Transportation Planning Department analysis

Glossary

Accessibility: People with a disability are afforded the opportunity to acquire information, engage in interactions, and enjoy services in a similar amount of time and effort as people without a disability.

Active Transportation: Non-motorized forms of transportation, such as walking, biking, and rolling via wheelchair, scooter, or other conveyance.

ADA Accessibility Guidelines: Standards for accessibility issued under the Americans with Disabilities Act of 1990 (ADA) that apply to places of public accommodation, commercial facilities, and state and local government facilities in new construction, alterations, and additions.

Advisory Bike Lane: A type of striped bikeway appropriate for narrow, unlaned roads in residential areas where a dashed lane marking indicates that motorists are permitted to temporarily enter the bike lane to provide oncoming traffic with sufficient space to pass safely.

Americans with Disabilities Act (ADA): A civil rights law that prohibits discrimination against individuals with disabilities in many areas of public life, including jobs, schools, transportation, and many public and private places that are open to the public.

Area Connector: A two-lane street in a suburban area that typically connects employment and entertainment centers, civic, commercial, and institutional land uses; may also provide limited regional connectivity; and may serve primary circulation in residential zones. These roads were previously classified as minor arterials.

Arterial: A road meant primarily for through-movement of vehicles at a moderate speed, although some access to abutting property is expected.

Accessibility: The ease with which a person can reach their destination and get what they need.

Average Daily Traffic (ADT): A commonly used measure of traffic flow that reflects the total volume of vehicular traffic passing a given point during a typical 24-hour period.

Bicycle and Pedestrian Priority Area (BiPPA): Defined in the Maryland state code as a geographical area where the enhancement of bicycle and pedestrian traffic is a priority. Montgomery County has designated 34 BiPPAs and has established a funding program for pedestrian and bicycle improvements with these areas.

Bicycle Parking: The *Bicycle Master Plan* recommends three types of bicycle parking.

- **Bicycle Parking Stations**: Secure bicycle storage areas, often located adjacent to transit stations or in downtown areas.
- **Long-Term Bicycle Parking**: Intended to provide sheltered and secure bicycle storage for residents, students, employees, and long-term visitors who are leaving their bicycles for several hours or longer. It is typically provided in a fixed, safe, and weather-protected setting, such as a bike station, bike room, or cage inside a building or stand-alone bike lockers.

- **Short-Term Bicycle Parking**: Prioritizes convenience and is located at entrances to public buildings, such as schools, libraries, recreation centers, and on commercial blocks. An example is "U" racks that allow users to quickly store and retrieve their bicycle.

Bikeways: Bikeways provide physical infrastructure to improve the comfort and safety of bicycling. They are organized into five facility classifications based on their level of separation from traffic, ranging from trails (the most separation from traffic) to shared roads (no separation from traffic). These five classifications are then subdivided into bikeway types as follows:

- **Trails**: Paths that are located outside of the road right-of-way. They provide two-way travel designated for walking, bicycling, jogging, and skating.
    - **Off-Street Trails**: Shared-use paths located outside of the road right-of-way that provide two-way travel for people walking, bicycling, and using other non-motorized modes.
    - **Stream Valley Park Trails**: Shared-use paths located within an M-NCPPC stream valley park that provide two-way travel for people walking, bicycling, and using other non-motorized modes of transportation.
    - **Neighborhood Connectors**: Short paths that provide critical connections in the residential walking and bicycling network. They create shortcuts and often bypass or minimize the amount of travel along higher-stress streets.
- **Separated Bikeways**: Separated bikeways provide physical separation from traffic.
    - **Sidepaths**: Shared-use paths located parallel to and within the road right-of-way. They provide two-way travel routes designated for walking, bicycling, jogging, and skating.
    - **Separated Bike Lanes**: Also known as protected bike lanes or cycle tracks, these are exclusive bikeways that combine the user experience of a sidepath with the on-street infrastructure of a conventional bike lane. They are physically separated from motor vehicle traffic and distinct from the sidewalk. They operate one-way or two-way.
- **Striped Bikeways**: Designated spaces for bicycling that are distinguished from traffic lanes and shoulders by striping and pavement markings.
    - **Buffered Bike Lanes**: Conventional bike lanes paired with a designated buffer space separating the bicycle lane from the adjacent vehicle travel lane and/or parking lane to increase the comfort of bicyclists.
    - **Conventional Bike Lanes (or simply, Bike Lanes):** Portions of the street that have been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists.

    - **Contra-Flow Bike Lanes**: Bike lanes designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic.
- **Bikeable Shoulders**: Portions of the roadway that accommodate stopped or parked vehicles, emergency use, bicycles, motor scooters, and pedestrians where sidewalks do not exist.
- **Shared Roads**: Bikeways that share space with automobiles.
    - **Shared Streets**: An urban design approach where pedestrians, bicycles, and motor vehicles can comfortably coexist. Shared streets prioritize pedestrian and bicycle movement by slowing vehicular speeds and communicating clearly through design features that motorists must yield to all other users. Motorists are considered "guests" in this environment.
    - **Neighborhood Greenways**: Streets with low motorized traffic volumes and speeds, designed and designated to give walking and bicycling priority. They use signs, pavement markings, and speed and volume management measures to discourage through-trips by motor vehicles and create safe, convenient crossings of busy arterial streets.
    - **Priority Shared Lane Markings**: Communicate bicyclist priority within a shared lane and guide bicyclists to ride outside the door zone. Colored backgrounds and more frequent spacing make priority shared lane markings more conspicuous than standard shared lane markings (also known as sharrows). This treatment does not improve most bicyclists' comfort in shared lanes with traffic.

Boulevard (Street Function): A high-capacity, median-divided road that carries medium distance trips between activity centers. Includes Downtown Boulevards, Town Center Boulevards, and (suburban) Boulevards.

Boulevard (Street Type): A street in a suburban area that typically connects employment and entertainment centers, civic, commercial, and institutional land uses and may also provide cross-county and regional connections. It accommodates pedestrians, bicycles, and transit users. Some access to abutting properties is expected.

Breezeways: The arterial bikeway network.

Buffer: An area of land designed or managed for the purpose of separating or providing a transition between two or more land areas whose uses may conflict or appear incompatible.

Buildout: The end point of development for a site or area, reached when all development capacity conveyed by zoning, subdivision, or site plan has been used.

Bus Rapid Transit (BRT): A high-quality, high-capacity bus-based transit system that delivers fast, comfortable, reliable, and cost-effective transit service.

Capital Improvements Program (CIP): A six-year comprehensive statement of the objectives, with cost estimates and proposed construction schedules, for capital projects and programs for all agencies for which the county sets tax rates or approves budgets or programs. Examples include the construction of public schools, street maintenance, and parks improvements.

Central Business District (CBD): Any of the principal business areas of the County that has been designated as a central business district in Chapter 1 of the County Code.

Commercial Alley: An alley that serves non-residential zones.

Commercial Centers: A broad grouping of areas of high commercial activity with a concentration of jobs, retail, housing, transit and other ancillary uses and support services. It includes Central Business Districts, downtowns, and town centers.

Complete Street: A street designed, operated and maintained to provide safe accommodations for all users, including people who walk, bicycle, use transit, and drive motor vehicles.

Complete Streets Classification: An approach to classifying streets based on both their land use context (Downtown Area, Town Center Area, Suburban Area, Industrial Area, Country Area) and street function (Highway, Boulevard, Connector, Street).

Complete Streets Design Guide: A guide developed by Montgomery Planning and the Montgomery County Department of Transportation for designing, operating, and maintaining streets to provide safe accommodations for all users, including people who walk, bicycle, use transit, and drive motor vehicles.

Conflict Point: A location where motor vehicles, pedestrians, and bicycles cross paths.

Connectivity: Measures the directness of travel, the number of potential routes, and travel options.

Connector: A street function that provides a connection between streets and boulevards. Includes Area Connectors, Neighborhood Connectors, and Country Connectors.

Context-Sensitive Design: A design process that not only considers physical aspects or standard specifications of a transportation facility, but also the economic, social, and environmental resources in the community being served by that facility.

Controlled Crossing: A location where sidewalks or designated walkways intersect a roadway at a location where traffic control (a traffic signal or stop sign) is present.

Controlled Major Highway: A type of highway meant exclusively for through-movement of vehicles at a lower speed than a freeway. Access must be limited to grade-separated interchanges or at-grade intersections with public roads.

Corridor: The area paralleling a major transportation facility, such as a highway, boulevard, or transitway.

Corridor Plan: A type of area master plan that typically covers a linear area along one of the major corridors in the county. For example: *Veirs Mill Corridor Master Plan*.

Corridor-Focused Growth: A planning approach to accommodating most of the new growth in Montgomery County surrounding major corridors. See *Thrive Montgomery 2050*, page 71, Figure 34.

Countdown Pedestrian Signals: Devices that communicate information about the number of seconds remaining in the pedestrian DON'T WALK interval.

County Code: Montgomery County's collection of written laws:

- **Chapter 49 (Road Code)**: The section of Montgomery County's code that addresses road design standards.
- **Chapter 59 (Zoning Code)**: The section of Montgomery County's code that addresses what can be built on a particular parcel of land.

Crossing Locations:

- **Controlled Crossing**: A location where a sidewalk or designated walkway intersects a roadway at a location where traffic control (a traffic signal or stop sign) is present.
- **Midblock Crossing**: A marked crossing located in between two crossings.
- **Protected Crossing**: A crossing designed to improve the safety and comfort of pedestrians and bicyclists crossing the street with traffic control devices, such as full traffic signals and Pedestrian Hybrid Beacons, that prohibit conflicting left turns and through vehicular movements.
- **Uncontrolled Crossing**: A location where sidewalks or designated walkways intersect a roadway at a location where no traffic control (traffic signal or stop sign) is present.

Critical Lane Volume (CLV): The sum of traffic volumes that cross at a single point in an intersection. The resulting product is used to determine the level of service of an intersection in a Local Area Transportation Review (LATR) Motor Vehicle Adequacy Test.

Curbside Management: The use of space along the street curb, including but not limited to loading and unloading passengers and freight, motor vehicle and bicycle parking, parklets, and outdoor dining.

Dedicated Lane: A portion of the street that is designated by signs and markings for the preferential or exclusive use of transit vehicles.

Design Guidelines: A set of guidelines intended to influence the design of buildings, landscapes, and other parts of the built environment to achieve a desired level of quality for the physical environment. They typically include statements of intent and objectives supported by graphic illustrations.

District Council: The Montgomery County Council, sitting as the District Council for that portion of the Maryland-Washington Regional District located in Montgomery County, for land-use matters, pursuant to the Land Use Article of the Maryland Code.

Downtown Areas: Montgomery County's highest density areas, including central business districts and urban centers. They are envisioned to have dense, transit-oriented development and a walkable

street grid (existing or planned). These areas are envisioned to share several of the following characteristics: identified as central business districts and/or major employment centers; high levels of existing or anticipated pedestrian and bicyclist activity; high levels of transit service; street grid with high levels of connectivity; continuous building frontage along streets, with minimal curb cuts; and mostly below ground or structured parking.

Downtown Boulevard: A boulevard in a downtown area that serves a high volume of vehicles, pedestrians, bicyclists, or transit users. Access to abutting properties is allowed but not preferable. These roads were previously classified as major highways and arterials.

Downtown Street: A type of street in a downtown area that serves a large share of pedestrians, bicyclists, or transit users. This road type is meant for circulation in commercial and mixed-use zones. Access to abutting properties is expected. These roads were previously classified as business streets.

Dwelling Unit: A building or a portion thereof that provides complete living facilities, including, at a minimum, facilities for cooking, sanitation, and sleeping, for not more than one family.

Equity Focus Area (EFA): A part of Montgomery County characterized by high concentrations of lower-income people of color, who may speak English "less than very well."

Free and Reduced-price Meals (FARM): A program for qualifying students at Montgomery County schools.

Fee-in-Lieu: A payment collected by Montgomery County as an alternative to meeting the requirements of county laws and policies.

Frontage: A property line shared with an existing or master-planned public or private road, street, highway, or alley right-of way, open space, or easement boundary.

Functional Classification: A way of grouping highways, roads, and streets according to the character of the service they provide, from access to adjacent property to regional mobility.

General Plan: A long-range guide for the development of a community. It is a framework for future plans and development that defines the basic land-use policies and context for all public and private development in the county.

Greenhouse Gas (GHG) Emissions: Gases that trap heat in the atmosphere, such as carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Growth and Infrastructure Policy: Montgomery County's tool for implementation of the county's Adequate Public Facilities Ordinance, which provides guidance for the Planning Board and other agencies in administering laws and regulations that affect the adequacy and timing of public facilities needed to support approved development. Previously known as the Subdivision Staging Policy and the Annual Growth Policy.

Growth Corridors: Major roads in the county that are recommended by *Thrive Montgomery 2050* to accommodate most new growth. See *Thrive Montgomery 2050*, page 71, Figure 34.

Guidelines: A set of limits and objectives, less binding than regulations, that are used to guide development or plan proposals.

Highway: A street function with multi-lane, high-speed roads that carry longer distance trips between activity centers. Includes Freeways, Controlled Major Highways, and non-M-NCPPC-owned Parkways.

Highway Capacity Manual: Provides the concepts, guidelines, and computational procedures for determining the capacity and quality of service of various highway facilities, including freeways, signalized and unsignalized intersections, rural highways, and the effects of transit, pedestrians, and bicycles on the performance of these systems.

Impact Tax: A charge collected by the Montgomery County Department of Permitting Services to help pay the costs of providing public facilities in designated areas. The tax is collected at the time of building permit.

Infrastructure: The built facilities, generally publicly funded, that are required to serve a community's development and operational needs. Infrastructure includes roads, water supply and sewer systems, schools, health care facilities, libraries, parks and recreation, and other services.

Land Use: The use of any piece of land through buildings or open land for activities including housing, retail, commerce, manufacturing, roads, parking, parks and recreation, and institutional uses such as schools, healthcare, and all other human activities.

Leading Pedestrian Interval (LPI): An approach to traffic signalization that allows pedestrians or bicyclists to enter the intersection in advance of vehicles traveling in the same direction.

Level of Traffic Stress (or Traffic Stress): The concept that people have a certain tolerance for bicycling near traffic, and if that tolerance is exceeded even for a short distance, they may be deterred from bicycling.

Local Area Transportation Review (LATR): Part of the Adequate Public Facilities test used to determine the traffic impacts of a proposed development that go beyond the capacity of existing and programmed roadways and intersections in the vicinity of the site.

Low-Stress Bicycling Network: A bicycling network that is comfortable and safe for people of all ages and bicycling abilities. Low-stress bicycling reflects the context of the road. For example, on high-volume and high-speed suburban highways, a shared-use path with a wide buffer from the road is preferred, whereas on downtown streets, a network of separated bike lanes is sufficient, and on low-volume residential streets, bicycling in the road with traffic may be appropriate.

Marked Crosswalk: Pavement markings that indicate the preferred location for pedestrians to cross the street and help motorists identify areas to look for pedestrians. Marked crosswalks may be located at intersections or midblock locations.

- **Continental Style Crosswalk**: A type of high-visibility marked crosswalk that uses pavement markings that are parallel to the motor vehicle path of travel.

- **High-Visibility Crosswalk**: A type of marked crosswalk that uses enhanced pavement markings to improve the visibility of pedestrians to approaching motorists.
- **Ladder-Style Crosswalk**: A type of high-visibility marked crosswalk that uses pavement markings that are both parallel and perpendicular to the motor vehicle path of travel.
- **Transverse Edge Line**: Crosswalk markings that are perpendicular to the motor vehicle path of travel that indicate the preferred location for pedestrians to cross the street.

Maryland-National Capital Park and Planning Commission (M-NCPPC): A bi-county agency created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties; the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) covers 1,001 square miles, while the Metropolitan District (parks) covers 919 square miles in the two counties. The Commission is responsible for managing physical growth and planning communities; protecting natural, cultural, and historic resources; and providing leisure and recreational experiences through the acquisition, development, operation, and maintenance of a public park system. Certain municipalities within the County (e.g., Rockville, Gaithersburg) are outside of the regional district and have their own planning and zoning powers.

Master Plan: A long-term planning document that provides detailed and specific land-use and zoning recommendations for a specific place, a countywide function, or an element of the general plan. It also addresses transportation, the natural environment, urban design, historic resources, public facilities, and implementation techniques. All master plans are amendments to the General Plan and can be classified into two major types: Functional Master Plans (or Functional Plans) and Area Master Plans (or Master Plans).

Metropolitan-Washington Council of Governments (MWCOG): A regional organization of the Washington area's major local governments and their governing officials. MWCOG works toward solutions to such regional problems as growth, transportation, housing, air pollution, water supply, water quality, economic development, and noise, and serves as the regional planning organization for the Washington metropolitan area.

Mobility: The capacity for movement of people and goods from one point to another**Mode Share**: The percentage of people arriving at a destination by a particular transportation mode. For example, the percentage of people arriving at a destination by private automobile is called the "auto mode share."

Montgomery County Council: The county's elected legislative body that has final authority, sitting as the (Regional) District Council, on all matters pertaining to planning and zoning. There are nine members elected to four-year terms. Five represent districts and four are elected at-large.

Montgomery County Zoning Ordinance (MCZO): Chapter 59 of the Montgomery County Code, which contains the zoning controls to regulate the use and development of all private property in the county. It generally defines permitted uses, maximum building floor area or the maximum number of units permissible on each property, maximum building heights, minimum setbacks, open space, and other requirements to shape all buildings and related improvements.

Multi-modal: Multiple travel modes, such as walking, bicycling, using transit, and motor vehicles.

National Capital Planning Commission: The federal government's planning agency for the National Capital Region.

Neighborhood Connectors (Street Type): A type of connector street in a suburban area providing primary circulation in residential zones, which may also enable traffic to pass through a neighborhood. These streets were previously classified as primary residential streets.

Neighborhood Street: A type of street in a suburban area that provides internal circulation within neighborhoods. Access to abutting properties is expected. These streets were previously classified as secondary and tertiary residential streets.

Neighborhood Yield Street: A type of street in a suburban area that is designed as a bi-directional one-lane street.

Node: A place where people and transportation routes Intersect.

Non-Auto Driver Mode Share (NADMS): The percent of commuters who travel by modes other than driving an automobile during peak periods. NADMS includes commuters who travel by transit, vanpool, biking, walking, or connecting to the workplace electronically. NADMS does not include carpool or vanpool drivers, but it does include carpool and vanpool passengers.

Paper Street: A dedicated public right-of-way for a road or street that has not been built.

Parkway: A type of highway meant exclusively for through-movement of vehicles at a moderate speed. Access must be limited to grade-separated interchanges and at-grade intersections. Any truck with more than four wheels must not use a parkway, except in an emergency or if the truck is engaged in parkway maintenance. Excludes roads not owned by M-NCPPC.

Pedestrian Level of Comfort (PLOC): A methodology that captures how comfortable it is to walk and roll in different conditions in Montgomery County.

Policy Area: A geographic sub-area of the county delineated by the Planning Board and adopted by the County Council in the Growth Policy for the purpose of staging analysis and the establishment of transportation staging ceiling capacities.

Posted Speed: The legal maximum speed at which vehicles may travel on a given stretch of road, indicated on signs posted along the roadway. See also Speed.

Priority Funding Areas: Existing communities and places designated by local governments indicating where they want state investment to support future growth.

Protected Intersection: A collection of design elements to improve the safety and comfort of pedestrians and bicyclists crossing intersecting streets, which include reducing speeds of turning motor vehicles, increasing visibility of pedestrians and bicyclists, increasing yielding to pedestrians and bicyclists, reducing crossing distances, and eliminating conflicts for bicyclists performing left turns.

Racial Equity and Social Justice: Changes in policy, practice, and allocation of county resources so that race or social justice constructs do not predict one's success, while also improving opportunities and outcomes for all people.

Rail: Metrorail, the Purple Line, and Maryland Area Regional Commuter (MARC) train service.

Right-of-Way (ROW): A strip of land intended for use by the public. A public right-of-way is occupied or intended to be occupied by a road, bikeway, sidewalk, path, or transit facility, as well as any ancillary facilities such as storm drains and stormwater management facilities. Public utilities such as electric transmission lines, telephone lines, cable TV lines, gas mains, water mains, and sanitary sewers may be permitted in the public right-of-way. A public right-of-way may be obtained by dedication as part of the development process or purchased in whole or in part by a public agency.

Road Design Standard: A standard developed by transportation agencies to define how roads and roadway elements are to be designed. In the United States, this is heavily influenced the Association of American State Highway and Transportation Officials document titled "A Policy on Geometric Design of Highways and Streets," colloquially known as the "Green Book."

Scenario Planning: A way in which planners test the benefits and costs of potential alternatives to identify a preferred alternative to advance as the master plan recommendation. Includes Baseline Scenarios and Alternative Scenarios.

Standard Shared Lane Markings (Sharrows): A type of roadway marking used to indicate a shared lane environment for bicycles and automobiles. These markings are places in the travel lane to indicate where people should preferably cycle.

Street: A street function that provides local access to property and circulation within a small area. Includes Downtown Streets, Town Center Streets, Neighborhood Streets, Neighborhood Yield Streets, Industrial Streets, Shared Streets, Country Roads, Rustic Roads, and Exceptional Rustic Roads.

Student Travel Tally: A quick, in-class survey that provides valuable information on student travel patterns, including arrival and departure mode of transportation.

Suburban Area: An area that has low-to-moderate residential development intensity.

Target Speed: The speed at which vehicles should operate on a roadway when all the factors that influence operating speed are in place, including adjacent land use, access to adjacent land use, building massing and setbacks, pedestrian and bicycle activity, road classification and function, traffic control, intersection spacing, traffic calming, posted speed limit, enforcement, and roadway geometry.

Thrive Montgomery 2050: Montgomery County's General Plan, a long-range guide for the development of the county.

Town Center Area: Similar to a Downtown but generally features less intense development and covers a smaller geographic area. Town centers typically have moderate to high intensity residential development, including multi-family buildings and townhouses and retail (existing or planned). Town

centers share the following characteristics: a regional or neighborhood-serving retail node with housing and other uses; medium to high levels of pedestrian and bicyclist activity; medium levels of existing or planned transit service; a street grid that ties into the surrounding streets; continuous building frontage along streets, with some curb cuts; and a mix of structured and underground parking as well as surface parking lots.

Town Center Boulevard: A type of boulevard in a town center area that serves a moderate to high volume of vehicles, pedestrians, bicyclists, or transit users. Access to abutting properties is allowed but generally not preferable. These roads were previously classified as major highways and arterials.

Town Center Street: A type of street in a town center area that serves a larger share of pedestrians, bicyclists, or transit users. This road type is meant for circulation in commercial and mixed-use zones. Access to abutting properties is expected. These roads were previously classified as business streets.

Traffic Calming: Physical changes to a street or roadway used to improve safety by decreasing traffic speed and/or volume and/or improving visibility. Methods of traffic calming include traffic circles, speed humps, and curb extensions.

Transit: A system of shared transportation available to members of the public. Transit service generally uses a fixed schedule and has specific stops or stations where transit vehicles allow passengers to board and alight. There are many kinds of transit vehicles, but in Montgomery County, they tend to include buses, commuter trains, heavy rail trains, and light rail trains. Also called Public Transit.

Transitway: A right-of-way for transit service such as light rail or rapid bus. Transit vehicles can be located within a median, within lanes, or to the side of vehicle lanes. Station locations are key destinations within a community.

Transportation Demand Management: Actions designed to alleviate traffic congestion by reducing dependence on single-occupancy vehicles through transit, carpooling, and other alternatives.

Transportation Management Districts (TMD): County organizations that provide concentrated services to encourage the use of transit and other commuting options in Montgomery County's major business districts. Currently, TMDs exist in Friendship Heights, downtown Bethesda, downtown Silver Spring, Greater Shady Grove, North Bethesda, and White Oak.

Transportation Networks: A set of transportation facilities, including highways and roads, rail lines, transit facilities, trails, and bike paths that together form the transportation system of a jurisdiction or a region.

Travel Demand Forecasting Model: A series of mathematical relationships linked together in a sequential process that calculates expected travel patterns based on a given land-use and transportation system scenario. Changes to land-use patterns or the transportation system are reflected in the travel patterns forecasted by the model. Montgomery County's mode uses the four-step modeling process: Trip Generation, Trip Distribution, Mode Choice, and Trip Assignment.

Tree Canopy: The layer of leaves, branches, and stems of trees that cover the ground when viewed from above and that can be measured as a percentage of a land area shaded by trees.

Urban District: A county special purpose tax area for an urban location to develop and maintain communities that contain diversified commercial, residential, and institutional development. An urban district is intended to provide streetscape maintenance and public amenities, promote commercial and residential interests of the area within the district's boundaries, provide cultural and community activities, enhance and monitor the safety and security of the public and property, and provide any capital project that promotes the economic stability and growth of the district. Montgomery County's urban districts are in Bethesda, Silver Spring, and Wheaton.

Vehicle Miles Traveled: The amount of travel for all vehicles in a geographic region over a given period.

Vehicle Revenue Miles: The distance traveled by transit vehicles while they are in service.

Vision Zero: A proven approach to preventing roadway-related deaths and serious injuries that represents a fundamental change in how we plan and design our roads, shifting from a focus on maximizing motor vehicle efficiency to ensuring that our roads are safe regardless of whether travel is by car, bus, bicycle, or foot. Vision Zero recognizes that people sometimes make mistakes and that our roads should be designed to ensure that those inevitable mistakes do not result in serious injuries or fatalities.

Washington Metropolitan Area Transit Authority (WMATA): A tri-jurisdictional public transit agency that operates transit service in the Washington metropolitan area.

Zone: An area within which certain uses of land and buildings are permitted and certain others are prohibited; yards and other open spaces may be required; lot areas, building height limits, and other requirements are established; and all of the foregoing apply uniformly within the zone.

Zoning: The practice of classifying different areas and properties in a jurisdiction into zones for the purpose of regulating the use and development of private land. Each zone specifies the permitted uses within the zone, the maximum size and bulk of buildings, the minimum required front, side and back yards, the minimum off-street parking, and other prerequisites to obtaining permission to build on a property.