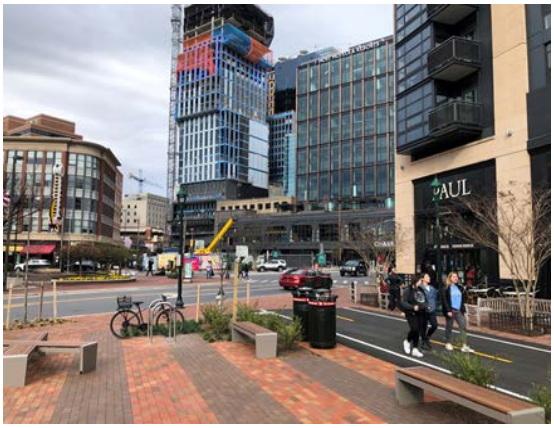
BICYCLE AND PEDESTRIAN PLAN FOR THE NATIONAL CAPITAL REGION- DRAFT

January 14, 2022 DRAFT



BICYCLE AND PEDESTRIAN PLAN FOR THE NATIONAL CAPITAL REGION

Prepared by Bicycle and Pedestrian Subcommittee of the TPB Technical Committee
Adopted on Month Date, Year

ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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The COG GIS department had a major role in the development of the project database, map, and related analysis. Credit is also due to the many TPB member agency staff who devoted numerous hours to providing and editing the necessary project data, to the Project Infotrak team, within COG, and to the staff at the consultant for Project Infotrak, Eco-Interactive. Without the hard work of many this plan would not have been possible.

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EXECUTIVE SUMMARY

Purpose

This *Bicycle and Pedestrian Plan for the National Capital Region* identifies the capital improvements, studies, actions, and strategies that the region proposes to carry out by 2045 for major bicycle and pedestrian improvements in state, local, and agency plans, and shows how implementation of these improvements, actions, and strategies will advance the goals of the region's long range transportation plan, *Visualize 2045*. It serves as a resource for planners and the public.

Overview

This plan is an update to the 2015 *Bicycle and Pedestrian Plan for the National Capital Region*.

The National Capital Region Transportation Planning Board (TPB), composed of governments and agencies from around metropolitan Washington, has developed this plan with the support of its Bicycle and Pedestrian Subcommittee. The plan incorporates the goals for walking and bicycling from the *TPB Vision* (1998), the current *Visualize 2045* long range plan, and other TPB planning documents and policies.

In addition to the *TPB Vision, Visualize 2045,* and its predecessor plans, the *Bicycle and Pedestrian Plan for the National Capital Region* draws on and has been shaped by regional, federal and state guidance on bicycle and pedestrian facilities; and a wealth of state and local bicycle, pedestrian, and trail plans from around the region.

In contrast to the fiscally constrained element of the long range plan, the *Bicycle and Pedestrian Plan* includes both funded and unfunded projects. Projects in this plan may not yet have funding identified to support their implementation.

Planning Context

A number of federal, state, and local activities, as noted above, provide the planning context (Chapter 1) for this document. At all levels the trend is to require or strongly encourage the routine inclusion of pedestrian and bicycle facilities in all transportation, a policy sometimes known as "complete streets".

The TPB has also endorsed an initiative to improve walk and bike access to transit, and to build a connected, regional long-distance "National Capital Trail Network".

Jurisdictions and agencies around the region maintain active bicycle and pedestrian planning and coordination programs. Within this context, the TPB incorporates bicycle and pedestrian considerations into overall regional transportation planning, the bike-to-work components of the Commuter Connections program, and the Transportation-Land Use Connections, Transit Within

Reach, and Regional Roadway Safety technical assistance programs. The region's Access for All Committee advises the TPB on issues relating to minority, low-income, and disabled communities, which often relate to pedestrian access and safety.

The Transportation Planning Board and the Council of Governments support bicycling and walking and their health, community, pollution reduction, and congestion reduction benefits for the region.

Bicycling and Walking in the National Capital Region

The state of bicycling and walking in the Washington region (Chapter 2) includes success stories, challenges, and opportunities for improvement. Data from the 2017/2018 Regional Travel Survey, the U.S. Census, surveys, and other sources provide an understanding of where bicycling and walking are found throughout the region, as well as who is walking and bicycling. These data may point to opportunities for increasing these activities, and support the need to consider bicycling and walking in overall roadway and transit planning and engineering.

Safety

Bicycle and pedestrian safety (Chapter 3) is a key challenge for the region. The plan describes the scope of the safety problem, its geographic and demographic distribution across the region, and the legal rights and responsibilities of drivers, pedestrians, and bicyclists.

Unfortunately, bicycle and pedestrian safety issues are found throughout the region. The region and member agencies are actively pursuing a number of engineering, enforcement, and educational strategies to reduce deaths and injuries.

Existing Facilities

The Washington region benefits from numerous popular bicycle and pedestrian facilities in place in our communities (Chapter 4). The region's transit agencies have also worked to provide access and accommodation of bicycling and walking to and on their systems. A goal of this plan is to complement and augment the existing system of facilities.

Recommended Best Practices

Convenient and safe bicycle and pedestrian access is a key goal of the TPB's *Vision* and the Council of Governments' *Region Forward 2050* plans. To help achieve this, the Bicycle and Pedestrian Subcommittee developed a set of recommended best practices (Chapter 5) for the design and implementation of bicycle and pedestrian facilities, as well as for the incorporation of bicycling and walking considerations into overall roadway and transit design. Best practices are based upon national and state laws and guidelines.

Planned Bicycle and Pedestrian Facilities and Improvements

Improvements included on the plan's list of regional bicycle and pedestrian projects (overview in Chapter 6 and the full listing in Appendix A) were identified, submitted and reviewed by agency staffs of TPB member jurisdictions.

The Bicycle and Pedestrian Plan for the National Capital Region includes 1650 bicycle and pedestrian facility improvement projects from across the region. If every project in the plan is implemented, in 2045 the region will have added approximately 138 miles of protected bicycle lanes, 30 miles of buffered bicycle lane, 363 miles of standard bicycle lanes, and over 1700 miles of shared-use path. The overall network length will increase by approximately 2500 miles.

If it implements the projects in this plan, by 2045 the region will have approximately 3500 miles of bike lanes and shared us paths, three times the current total.

The Washington region is national leader in design and services. Treatments such as protected bike lanes, protected intersections, HAWK signals, and floating bus stops were developed or refined here. The Washington region has also been a national leader in Micromobility, including Capital Bikeshare and numerous e-scooter and e-bike rental services.

Costs

Total estimated cost of projects in the draft plan is about $5 billion (2021 dollars). Total plan cost was imputed based on planned facility mileage and project types. Project-level cost estimates, where provided, should be considered as order-of-magnitude planning estimates and in most cases do not reflect engineering-level estimates.

Project Infotrak

Development of the *Bicycle and Pedestrian Plan for the National Capital Region* has benefited from an on-line plan project database, Project Infotrak, a resource separate from the printed document. Bicycle and Pedestrian Subcommittee members were able to view, enter, and edit their project listings on-line in the database. Project Infotrak will facilitate keeping the regional list accurate and up-to-date, and eliminates the duplication of records that formerly existed between the Transportation Improvement Program and bike-ped project databases.

A non-editable, public access version of the list of bicycle and pedestrian projects, and an interactive map of those projects, will be made available on the COG web site.

Outlook

For over 20 years successive regional plans have called for convenient, safe bicycle and pedestrian access, walkability in regional activity centers and the urban core, reduced reliance on the automobile, increased walking and bicycling, inclusion of bicycle and pedestrian facilities in new

transportation projects and improvements, and implementation of a regional bicycle and pedestrian plan, and developed increasingly specific strategies to make it happen. Today the region is well on its way to making that vision a reality. The *Bicycle and Pedestrian Plan for the National Capital Region* provides a blueprint for providing bicycle and pedestrian access to virtually all of the region's developed areas.

INTRODUCTION

This section briefly describes the role of walking and bicycling within the region's transportation system and transportation planning. It also provides a a summary of the development and organization of this Bicycle and Pedestrian Plan for the National Capital Region.

Bicycling and Walking in the National Capital Region

The Washington region is nationally known for the quality, beauty, and extent of its bicycle paths. Its walkable core neighborhoods attract residents and visitors alike. The region has a strong foundation of walking and bicycling facilities to build upon.

Taken together, bicycling and walking are a significant and growing mode of transportation in the Washington region. According to the Metropolitan Washington Council of Governments' 2017-2018 Regional Travel Survey walking and bicycling account for 11% of all trips in the Washington region, up from 9% in 2008. Bicycling to Work in the District of Columbia tripled in ten years, from 1.6% in 2008 to 5.3% in 2018.

Figure 1: Green Bike Lane/TPB/Michael Farrell

Walking and Bicycling account for 11% of all trips in the region

Recent years have seen progress for bicyclists and pedestrians. Several major new trails and bridges have opened, and most local governments have adopted bicycle, pedestrian, and/or trail plans. Most of the transit agencies in the region have added bike racks to their buses. Bicycle or pedestrian coordinators and trail planners are now found at most levels of government. In accordance with federal guidance and state and local Complete Streets policies, pedestrian and bicycle facilities are routinely provided as part of larger transportation projects. Employers are investing in bike facilities at work sites, and developers are including paths in new construction. Capital Bikeshare, which launched in September 2010, has been a dramatic success, and now features over 5000 bicycles at over 600 stations.

Figure 2: New York Avenue Metro Station and Metropolitan Branch Trail/TPB/Michael Farrell

The New York Avenue Metro Station Incorporates a Shared-Use Path and Bicycle Parking

Bicycling and walking could reach a greater potential in the Washington region, however. Many trips currently taken by automobile could be taken by bicycle. The median work trip length for auto commuters in the Washington Metropolitan Statistical Area is nine miles.[1] But the median non-work trip for non-work trips, which is more than ¾ of all trips, the median distance is only 3.1 miles.

Many people who live far from their jobs, but closer to transit or a carpool location could walk or bike to transit or the carpool instead of driving.

Destinations such as schools, shopping, and recreational facilities are often close enough to walk or bicycle. Bicycling and walking have considerable potential to displace automobile trips if suitable transportation, design, safety, parking, school siting, and land development policies are followed.

Bicycling, Walking and the Transportation Planning Board

The National Capital Region Transportation Planning Board (TPB) has long recognized the benefits of bicycling and walking in the region's multi-modal transportation system. The Transportation Planning Board's *Transportation Vision for the 21st Century*, adopted in 1998, emphasizes bicycles and pedestrians in its goals, objectives and strategies.

The Region has a Growing Network of Shared-Use Paths

Since then, the TPB has adopted a regional trails plan, prioritized pedestrian and bicycle initiatives in its long range transportation plan, and promoted the adoption of "Complete Streets" policies, which have led to the incorporation of pedestrian and bicycle accommodations in nearly every new transportation project.

[1] 2017-2018 Regional Travel Survey,

Figure 3: Woodrow Wilson Bridge/TPB/Michael Farrell

Complete Streets in Action: The Woodrow Wilson Bridge Trail opened in 2009

COMPLETE STREETS

The National Capital Region Transportation Planning Board adopted a Complete Streets policy in May 2012. The policy defined a complete street as one that safely and adequately accommodates motorized and nonmotorized users, including pedestrians, bicyclists, motorists, freight vehicles, emergency vehicles, and transit riders of all ages and abilities, in a manner appropriate to the function and context of the facility. The TPB endorsed the concept of Complete Streets and encouraged its member governments, which had not already done so, to adopt a Complete Streets policy.

All three States and 91% of local governments have a Complete Streets Policy

All three States and 91% of the local governments in the Washington region now have Complete Streets policies.

Plan Development and Organization

This plan is intended to help fulfill the goals of the *Visualize 2045* and the *TPB Vision*, for bicyclists and pedestrians. It includes performance measures that will show progress towards regional goals.

This plan has been prepared by the National Capital Region Transportation Planning Board, the federally designated Metropolitan Planning Organization (MPO) for the Washington region. The TPB

is made up of representatives of 23 local governments, the departments of transportation of Maryland, Virginia, and the District of Columbia, the state legislatures, and the Washington Metropolitan Area Transit Authority (WMATA).

This document presents the long-range Bicycle and Pedestrian Plan for the Washington Region through the year 2045. The plan is a list of regional projects identified by the TPB member jurisdictions, accompanied by recommended best practices and a description of existing facilities and regional trends for bicycling and walking. This plan includes both funded and unfunded projects. It does not specify design guidelines, but refers instead to state and national guidelines for bicycle and pedestrian facilities.

This update of the *Bicycle and Pedestrian Plan for the National Capital Region* seeks to reflect the goals, objectives and strategies of the 1998 *TPB Vision, Visualize 2045,* and the approved *National Capital Trail Network,* while building on information from previous plans.

Pedestrian access and safety receives more attention in this update, reflecting increased involvement in transportation safety planning by the TPB. Pedestrian planning is most needed at the county, city and neighborhood level. There is, however, a role for regional pedestrian planning, in safety, public education, and connections to transit and between jurisdictions. This plan documents how the planned projects will serve activity centers, high capacity transit stations, and low income and minority areas.

PROJECT INFOTRAK

The database of major Bicycle and Pedestrian Projects is the core of the plan. The original database was designed in 2006 as a list of projects with no associated GIS layers, and no connections to other project databases that the TPB uses, such as the Transportation Improvement Program (TIP). With the rapid adoption of new bicycle and pedestrian plans in the region, the 2015 plan database, which was compiled in 2014, had become very out of date.

The goal for the current update was a visual, GIS map-based plan. Any project that can be mapped is mapped.

For the 2021 database, we made a fresh start. Instead of a separate database, we used the new TIP database, Project Infotrak. Projects were imported in bulk from agency plans, with associated GIS layers, from agency bike/ped plans developed since 2013, and from the National Capital Trail Network. Additional edits to the database can be made directly by agency staff who have the necessary permissions. New TIP projects that include bicycle and pedestrian accommodation are automatically added to the bike/ped project database. The result is a database that will be easier to keep current.

GIS mapping enables better analysis of how the network of planned projects will serve regional goals, such as access to high capacity transit, activity centers, and equity emphasis areas.

CHAPTER 1: PLANNING CONTEXT

There are numerous plans, policies and goals that both affect and are affected by the level of walking and bicycling. This section details the role of walking and bicycling in regional, federal, state, and local planning and policies.

Regional Planning

THE VISION OF THE TRANSPORTATION PLANNING BOARD

The National Capital Region Transportation Planning Board (TPB) is the Metropolitan Planning Organization for the Washington region. It brings key decision-makers together to coordinate planning and funding for the region's transportation system.

The TPB's official vision statement for the region, the *Transportation Vision for the 21st Century*, adopted in 1998, is meant to guide regional transportation investments into the new century. The *Vision* is not a plan with a map or specific lists of projects. It lays out eight broad goals, with associated objectives and strategies that will help the region reach its goals.

The Vision of the TPB calls for more Walking and Bicycling

The *Vision* is supportive of pedestrians and bicyclists. It calls for:

- Convenient, safe bicycle and pedestrian access
- Walkable regional activity centers and urban core
- Reduced reliance on the automobile
- Increased walk and bike mode share
- Including bicycle and pedestrian facilities in new transportation projects and improvements
- Implementation of a regional bicycle and pedestrian plan

Other goals of the *Vision* affect bicyclists and pedestrians, such as: maintaining the existing transportation system, reducing the per capita vehicle miles traveled, linking land use and transportation planning, and achieving enhanced funding for transportation priorities.

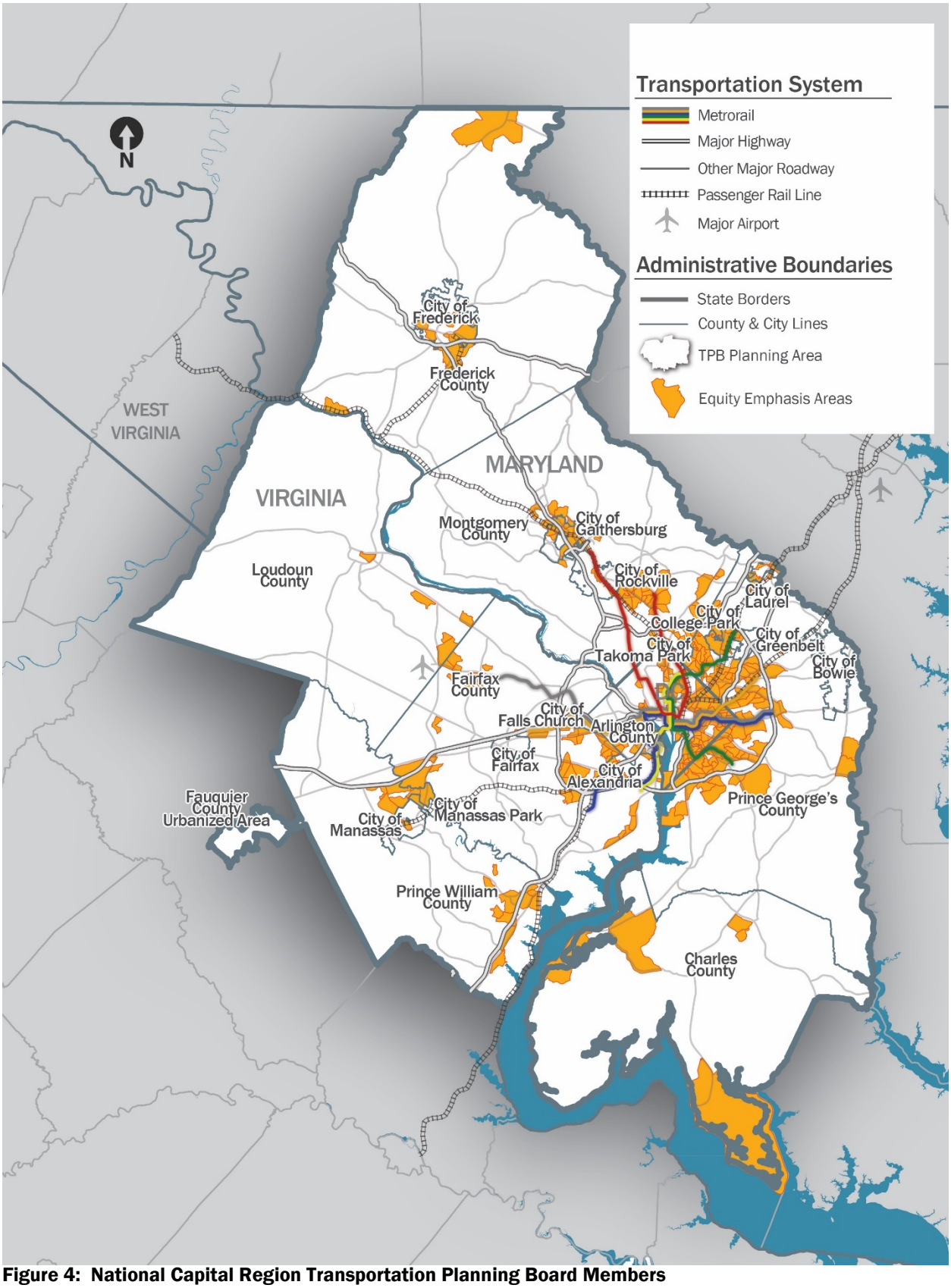
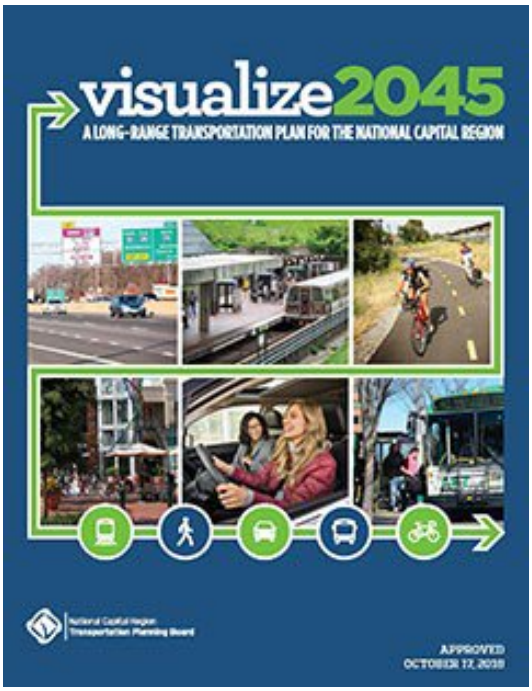


Figure 4: National Capital Region Transportation Planning Board Members

Visualize 2045



Visualize 2045, which was approved by the Transportation Planning Board in October 2018, is the current federally mandated, long-range transportation plan for the National Capital Region. An updated version of *Visualize* is slated for public release in mid-2022.

Visualize 2045 contains both projects that the region expects to be able to fund (the constrained element) and unfunded (aspirational) elements.

Financially Constrained Element

Federal regulations require the TPB to develop a long-range transportation plan identifying the projects expected to be funded within a minimum planning horizon of 20 years. The TPB must demonstrate that there is funding available for those projects. The total expenditures cannot exceed the total anticipated funding. The TPB must also analyze the plan for its effect on the region's air quality.

This kind of plan is known as a financially constrained long-range plan. Future population growth, congestion, and travel mode shares are forecast based on the transportation network for which funding is available.

The constrained element predicts 45% growth in walk and bike trips by 2045, much faster than the expected 23% increase in population and 20% increase in vehicle-miles traveled.

Aspirational Element

Visualize 2045 also represents a new kind of long-range planning effort in this region. For the first time, in addition to projects that the region's transportation agencies expect to be able to afford between now and 2045, the plan includes aspirational projects, programs, and policies that go beyond financial constraints.

The latest information on the 2022 update to the plan can be found at the Visualize 2045 web site. In addition, an interactive companion is available to view Visualize 2045 projects and initiatives in a story map.

Visualize 2045 proposes seven aspirational initiatives which, if enacted, would have the potential to significantly improve the region's transportation system performance compared to current plans and programs. *Visualize* goes beyond earlier strategic plans, in that it identifies specific locations in need of improvements.

The seven Aspirational Initiatives are:

- Bring Jobs and Housing Closer Together
- Expand Bus Rapid Transit and Transitways
- Move More People on Metrorail
- Provide More Telecommuting and Other Options for Commuting
- Expand Express Highway Network
- Improve Walk and Bike Access to Transit
- Complete the National Capital Trail Network

Most of these initiatives imply a greater role for walking and bicycling. Bringing jobs and housing closer together echoes longstanding TPB goals and makes walking and bicycling for transportation more feasible. Increased transit service and improving walk and bike access to transit mean more walking and bicycling. Completing the National Capital Trail Network would provide a continuously connected, high quality regional and long distance bicycle and pedestrian network.

Projects that will advance the aspirational initiatives receive favorable consideration for the competitive grant and technical assistance funds that TPB administers, such as the *Transportation-Land Use Connections* and *Transportation Alternatives* programs. Unlike previous plans, *Visualize* identifies specific trails and transit stations to be prioritized for improvements.

TRANSIT ACCESS FOCUS AREAS

At its July 2020 meeting, the TPB adopted Resolution R4-2021 to approve a regional list of 49 Transit Access Focus Areas (TAFAs). The TAFAs include Metrorail stations, commuter rail, light rail, and selected bus transit centers. The TAFAs are rooted in the region's long-range transportation plan, Visualize 2045, and its aspirational initiative to Improve Walk and Bike Access to Transit.

TPB was able to identify those stations that had the greatest potential for increasing ridership through improved pedestrian access, based on the stations' effective half-mile walksheds given their existing pedestrian network, and on their density of people and jobs.

When the TPB approved 49 TAFAs and also asked member jurisdictions to:

…Prioritize projects, programs, and policies that will implement improvements in the Transit Access Focus Areas. All projects, programs, and policies must be implemented in an environmentally sensitive and sustainable manner, consistent with the TPB Vision.

NATIONAL CAPITAL TRAIL NETWORK

The National Capital Trail Network, which was adopted by the TPB in July 2020, is a trail plan for the National Capital Region. It will be a continuous network of long-distance, mostly off-street facilities,

designed for non-motorized use. The network will provide healthy, low-stress access to open space and clean, inexpensive, reliable transportation for people of all ages and abilities. [2]

When complete, the National Capital Trail Network will include over 1400 miles of shared use paths and other low-stress facilities, of which 645 miles already exist, and 780 miles are planned.

Visualize 2045 calls for the completion of the National Capital Trail Network.
The network will provide high-quality bicycle and pedestrian access for most of the region's people and jobs. 70% of the region's population lives within a half-mile of the network, and 98% of the jobs are within two miles of the network. 136 of the region's 141 Activity Centers are within a half-mile of the network, as are 308 of the 351 Equity Emphasis Areas.

When the TPB adopted the trail network, it also asked its member jurisdictions to:

"Prioritize projects, programs, and policies that will implement portions of the National Capital Trail Network. All projects, programs, and policies must be implemented in an environmentally sensitive and sustainable manner, consistent with the TPB Vision".

The network will be used to prioritize funding for the Transportation Alternatives Program and the Transportation – Land Use Connections (TLC) Program.

The network was developed using the following facility types and design criteria:

- Off-Street Paths:
    - 10'+ wide for new construction.
    - 8' minimum for existing facilities
    - Narrower in short segments if necessary
    - Paved, or firm surface such as crushed limestone
    - Designed for non-motorized users (<20 mph design speed)
- On-street:
    - Protected from moving traffic (i.e. parked cars, curb, flexposts)
    - Short unprotected connections where necessary for connectivity
    - Traffic-calmed, low-stress "bicycle boulevards" are also acceptable
- Connectivity
    - Directly connected to the regional network
    - Suitable for both transportation and recreation
    - Existing or planned facilities are acceptable
    - Planned facilities must be in an approved plan

To develop this network TPB staff gathered information from the Capital Trails Coalition and from jurisdictions which the Capital Trails Coalition Plan did not include, including Charles, Frederick, Loudoun, and Prince William Counties. The network will be updated regularly to reflect the adoption of new agency bicycle and pedestrian plans.

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[2] The National Capital Trail Network benefited from concurrent trails planning work for the urban core and inner suburbs done by the Capital Trails Coalition, an effort housed at the Washington Area Bicyclist Association and funded by a grant from REI. The Capital Trails Coalition also promotes the completion of the trail network within the urban core and the inner suburbs. The Capital Trail Nework plan took nearly three years to develop. National Park Service and TPB staff participated in the plan development. To keep the task of creating a regional trail plan manageable, the footprint of the Capital Trail Network was limited to the urban core and inner suburbs, which is the Washington Area Bicyclist Association service area.

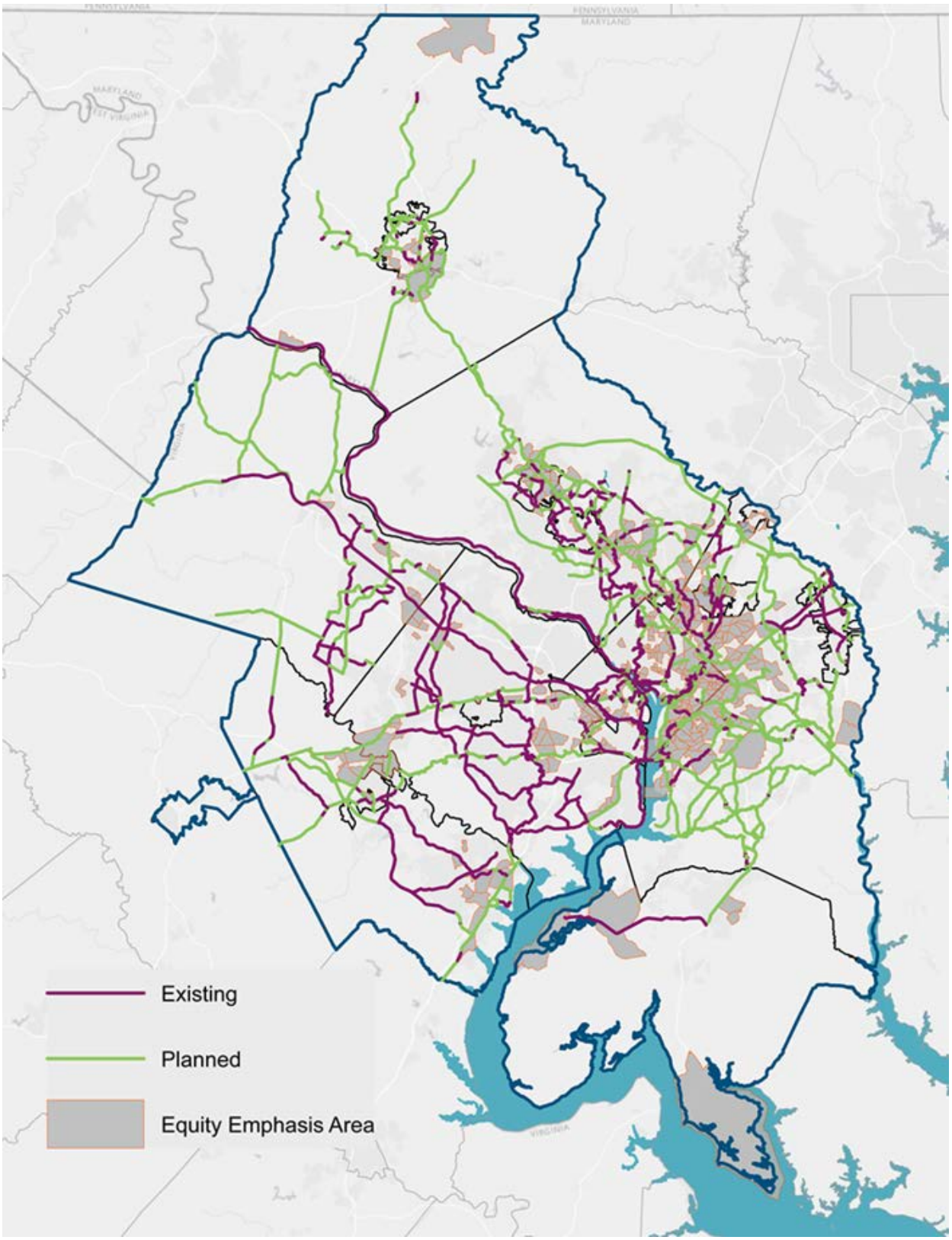


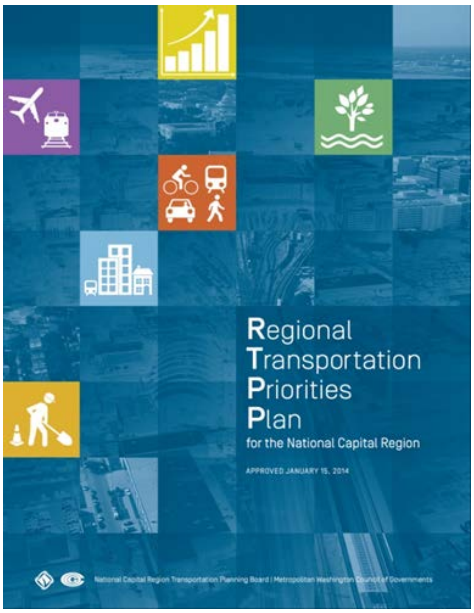
Figure 5: National Capital Trail Network

REGIONAL TRANSPORTATION PRIORITIES PLAN

In January 2014, the TPB approved, the *Regional Transportation Priorities Plan* (RTPP). The RTPP built on the *Vision* goals by identifying strategies with the greatest potential to respond to our most significant transportation challenges. The strategies were intended to be complementary, to make better use of existing infrastructure, and to be "within reach" both financially and politically.

Bicycle and pedestrian modes are prominent in the RTPP. It calls for:

1. **Improved access to transit stops and stations**, connecting them to nearby neighborhoods and commercial areas with sidewalks, crosswalks, and bridges.
2. **Incentives to use commute alternatives** such as transit, carpool, vanpool, bicycling, walking, telework, and living closer to work.
3. **Expanded pedestrian and bicycle infrastructure,** including
   - Sidewalks, crossings, traffic calming
   - Bicycle lanes/paths, bicycle parking, bikeshare
   - Workplace amenities for bicyclists
   - Growth concentrated in **Walkable, Bikeable Activity Centers**
4. **Improved circulation** within activity centers though enhanced
   - Pedestrian and bicycle infrastructure
   - Local bus service
   - Street connectivity



COMPLETE STREETS

In May 2012 the TPB approved a *Complete Streets Policy for the National Capital Region.* The policy defines a Complete Street as a "facility that safely and adequately accommodates motorized and non-motorized users, including pedestrians, bicyclists, motorists, freight vehicles, emergency vehicles, and transit riders of all ages and abilities, in a manner appropriate to the function and context of the facility". The TPB endorsed the concept of Complete Streets, provided a sample policy template, and urged its members who had not already adopted such a policy to do so.

The significance of Complete Streets is that future pedestrian and bicycle projects are likely to be built as part of larger transportation projects. Therefore, far more such projects are likely to be built. Moreover, designing and building with pedestrians and bicyclists in mind from the start is far more cost-effective than retrofitting after the fact.

Follow-on actions to the policy included an implementation workshop, held on January 2013, and the establishment of an information clearinghouse, where links and information on state and regional planning processes and high-profile projects can be found.

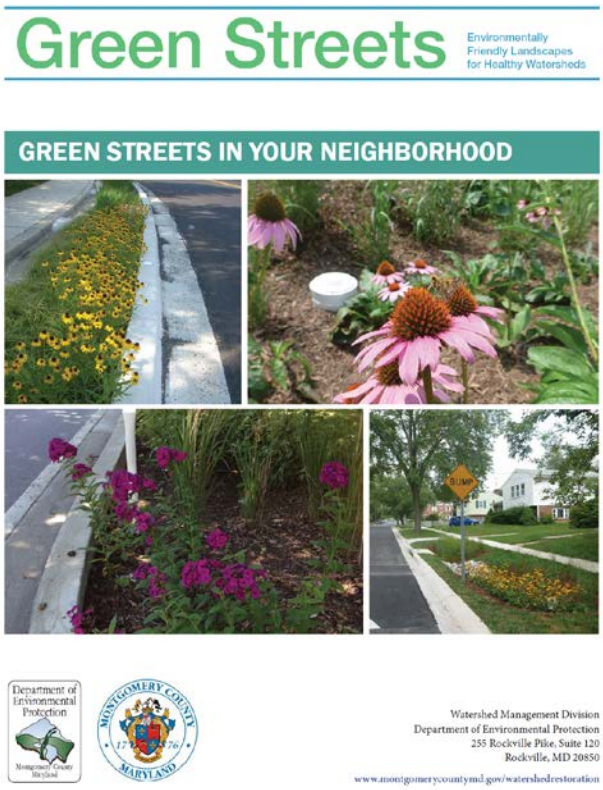
As of 2020 all three State departments of transportation and 91% of local jurisdictions (including DC) had adopted a Complete Streets policy. Complete Streets is now standard practice.

Under Complete Streets, accommodation for pedestrians and bicyclists is now typically provided as part of larger transportation projects. Prior to the adoption of Complete Streets policies and precursor policies, these were seen as optional "amenities".

GREEN STREETS

In February 2012 the TPB adopted a voluntary regional Green Streets Policy. The policy defines a Green Street as an "alternative to conventional street drainage systems designed to more closely mimic the natural hydrology of a particular site by infiltrating all or a portion of local rainfall events". A green street uses trees, landscaping, and related environmental site design features to capture and filter stormwater runoff within the right of way, while cooling and enhancing the appearance of the street.[3]

DC's Urban Forestry Program Helps Keep DC Cool and Green



Green Streets benefit pedestrians and bicyclists by cooling and beautifying the street, making it a more pleasant place to walk or bike. Green Streets treatments may compete with pedestrians and bicyclists for space but can often be placed in traffic calming features such as bulb-outs and landscaped islands. Road diets and traffic calming projects can free up space for Green Streets treatments.[4]

A warming climate means that reducing the urban temperatures even more important to maintaining the walkability and bikability of urban areas.

Green Streets are mostly an urban phenomenon. Greening the streets and sidewalks is an effective mitigation for urban

[3] https://ddot-urban-forestry-dcgis.hub.arcgis.com/

[4] https://ddot.dc.gov/GreenInfrastructure

challenges such as the heat island effect, stormwater runoff, and combined sewage overflow.[5] Inner suburban places such as Arlington, Hyattsville, and Wheaton that face similar issues have also started greening their streets.[6]

On the other hand, outer suburban and rural areas have less impervious surface, more land available for large off-street stormwater detention basins, lower summer temperatures, and fewer pedestrians or bicyclists who would value greener streets.

As of 2020, half the local governments (including DC and Montgomery County) had adopted a Green Streets policy.

AIR QUALITY AND BICYCLING

Walking and bicycling are near zero emission modes of transportation. At the same time, cleaner air helps pedestrians and bicyclists, who are more vulnerable than motorists to smog and particulate pollution. During "code red" air quality days people are typically urged to avoid outdoor exercise.

Poor air quality discourages Walking and Bicycling

Fortunately, the metropolitan Washington region has made tremendous progress in its air quality thanks to decades of actions at the federal, state, and local government levels[7]. The number of bad air days (code orange or worse) fell by 97% between 1997 and 2020.[8] The region had zero code red days in 2021, and only eight code orange days.[9] The number of bad days for fine particulates has fallen to zero. These declines have come even as population and vehicle miles traveled have grown.

Within transportation, reductions in emissions of NOx and VOCs have resulted mostly from federal requirements for cleaner, more fuel-efficient vehicles and for cleaner-burning fuels. Efforts to reduce roadway congestion and to encourage less driving have also contributed.

Fortunately, air quality in the region is much improved!

Increased walking and bicycling is a part of proposed strategies to reduce the region's greenhouse gas emissions.

Progress on greenhouse gas emissions, while significant, has been much less than for NOx, Volatile Organic Compounds, and particulates.[10] Transportation and mobile sources account for 40% of greenhouse emissions.[11]

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[5] https://www.montgomerycountymd.gov/DEP/Resources/Files/brochures/GreenStreetsHandout.pdf

[6] https://potomac.org/blog/2020/3/1/dc-green-streets

[7] https://www.mwcog.org/environment/data-and-tools/air-quality-progress-dashboard/

[9] https://www.mwcog.org/environment/data-and-tools/air-quality-progress-dashboard/

[10] https://www.mwcog.org/documents/2017/09/23/air-quality-trends-air-quality-air-quality-data-featured-publications/

[11] https://www.mwcog.org/documents/2018/02/08/metropolitan-washington-community-wide-greenhouse-gas-emissions-inventory-summary--featured-publications-greenhouse-gas/

Bicycling and Greenhouse Gases

Walk and bike trips do not contribute significantly to greenhouse gas emissions.

Bicycling is the most energy-efficient form of transport

Bicycling is the most energy-efficient mode of transportation. .Accounting for the life-cycle carbon emissions of the vehicle, a bicycle emits 1/30 the greenhouse gases of a fossil fuel vehicle, and 1/10 the emissions of an electric vehicle.[12]

To the extent that the region can divert motorized trips to walking and bicycling, it can help reduce these emissions. Active transport is part of the regional strategy to reduce such emissions.

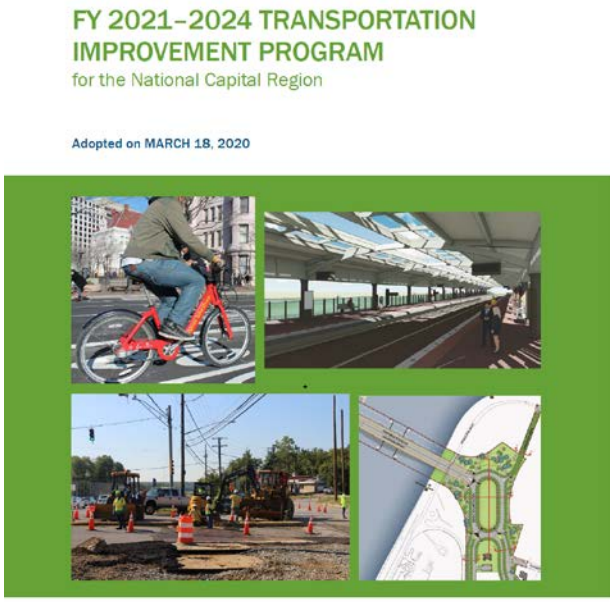
TRANSPORTATION IMPROVEMENT PROGRAM

The Transportation Improvement Program includes $1.475 billion for pedestrian and bicycle projects.

The Transportation Improvement Program (TIP) is a federal obligation document which describes the planned schedule in the next four years for distributing federal, state and local funds for state and local transportation projects. The TIP represents an agency's intent to construct or implement specific projects in the short term and identifies the anticipated flow of federal funds and matching state or local contributions. It is a multimodal list of projects that includes highway projects, rail, bus and streetcar projects, and bicycle and pedestrian improvements. It also includes roadway and transit maintenance projects, operational programs, and many other transportation-related activities.

[12] https://theconversation.com/cycling-is-ten-times-more-important-than-electric-cars-for-reaching-net-zero-cities-157163

The TPB's FY 2021–2024 TIP contains over 300 project records and more than $15 billion in funding across the region. The TIP is a dynamic budget document and is amended and modified on a weekly/monthly basis.



The TIP includes $1.475 billion for pedestrian and bicycle projects, or roughly 10% of total funding .

Funding for bicycle and pedestrian projects in the TIP has increased sharply. For example, the six-year Fiscal Year 2013-2018 TIP included $313 million for bicycle and pedestrian projects. Annual bike/ped project funding in the current TIP is seven times what it was in the FY 2013-2018 TIP.

This does not provide a complete picture of the region's planned investments in bicycle and pedestrian infrastructure, however. Every submitting agency reported that their jurisdiction had a Complete Streets policy, which implies pedestrian and bicycle accommodation, the cost of which is not always calculated or reported.

BICYCLE AND PEDESTRIAN SUBCOMMITTEE

The Bicycle and Pedestrian Subcommittee of the TPB Technical Committee advises the TPB, TPB Technical Committee, and other TPB committees on bicycle and pedestrian considerations in overall regional transportation planning. It meets six times per year. One its most important functions is information exchange, at regular meetings, and at sponsored training events.

The Subcommittee also helps coordinate planning efforts which require inter-jurisdictional coordination. It developed a vision for a regional circumferential bicycle route, or "bicycle beltway", which ultimately became the National Capital Trail Network. A working group of the Subcommittee advises the regional Street Smart Pedestrian and Bicycle Safety Campaign.

Street Smart Pedestrian and Bicycle Safety Campaign

Since 2002, The Metropolitan Washington Council of Governments' Street Smart program has worked to protect vulnerable road users by raising awareness about pedestrian and bicycle safety. The region-wide public safety campaign educates drivers, pedestrians, and bicyclists on about safe use of roadways in the District of Columbia, suburban Maryland, and Northern Virginia.

The campaign integrates several components, including broadcast and outdoor advertising, media relations, digital media, and outreach events. It is meant to complement, not replace, the efforts of state and local governments and agencies to build safer streets and sidewalks, enforce laws, and train better drivers, bicyclists, and pedestrians.

Figure 6: Street Smart Ad

BICYCLING, WALKING, AND THE REGIONAL TRANSPORTATION MODEL

Data relevant to walking and bicycling are gathered as part of the regional household travel survey, and are incorporated into regional transportation modeling and forecasting.

The regional travel forecasting model is based on traffic analysis zones, which are large enough that many pedestrian and bicyclist trips begin and end within a single zone, and thus are not modelled. Adding many more traffic analysis zones, to capture more pedestrian trips, would make the model much more complicated and require more computing power. Also, pedestrian and bicyclist trips are likely to occur on local streets or paths that are not part of the modelled network. Therefore the travel forecasting model which MWCOG currently uses does not assigned pedestrian or bicyclist trips to particular links in the transportation network, but only predicts in which traffic analysis zone in which they will start.

Regional Encouragement and Funding Programs

To help reduce automobile traffic, congestion and air pollution, COG and TPB have developed several programs to encourage bicycling and walking in the Washington region. TPB offers technical assistance and funding for construction to its member governments, while the regional Commuter Connections program offers incentives to commuters to encourage them to use transit, carpooling, and walk/bike to get to work.

COMMUTER CONNECTIONS

As part of the Commuter Connections program, every year on the third Friday in May the TPB sponsors a regional Bike to Work Day. This event has grown into one of the largest of its kind in the country, attracting over sixteen thousand riders to seventy-nine "pit stops" or rallying points around the region. The event is meant to encourage first-time riders to try bicycling to work.

The Commuter Connections program also supports publication of *Biking to Work in the Washington Area: A Guide for Employers and A Guide for Employees*, which provides tips for employees and employers. For employees, there are tips on safe cycling, laws, equipment and clothing, and transit connections. For employers, the guide explains the benefits of bicycling to the employer, the types of bicycle parking, and the ways an employer can encourage an employee to bike to work.

Commuter Connections produces a regional Bike Route map. Google maps offers both pedestrian and bicycle routing. Other tools and resources for bicycle commuters are listed on the bicycling resources section of the Commuter Connections web site.

People sometimes drive to work because they need to be able to get home quickly in an emergency. To meet that need and help get more people out of their cars, the Commuter Connections program offers a free taxi ride home in an emergency for commuters who regularly (twice a week) carpool, vanpool, bike, walk or take transit to work. Commuters who sign up for the Guaranteed Ride Home program may use it up to four times per year.

TRANSPORTATION-LAND USE CONNECTIONS PROGRAM

The Transportation Land Use Connections (TLC) Program provides short-term consultant services to local jurisdictions for small planning projects that promote mixed-use, walkable communities and support a variety of transportation alternatives. The program provides consultant assistance of $30,000 to $60,000 for planning projects, and up to $80,000 for design or preliminary engineering projects.

Since 2007 dozens of pedestrian and transit access planning projects have been funded through the TLC program. Community response has been enthusiastic, and competition for the technical assistance has been stiff.

In addition to providing technical assistance, the TLC Program includes a Peer Exchange Network and provides support for the TPB's project selection role under the federal Transportation Alternatives Set Aside (TAP).

TRANSPORTATION ALTERNATIVES

The Transportation Alternatives Set-Aside (TA Set-Aside) Program provides federal funds for small-scale projects such as pedestrian and bicycle facilities, trails, safe routes to school (SRTS) projects, community improvements, and environmental mitigation. These kinds of projects are considered "alternatives" to traditional highway construction.

Under federal law, the TPB is responsible for selecting projects using sub-allocations of each state's TA Set-Aside funding.

The TPB encourages applications that support regional transportation priorities, including projects focused on Activity Centers, access to transit, regional trails, access for disadvantaged communities, and ADA improvements. In particular, the TPB is interested in applications focused on the region's Transit Access Focus Areas and the National Capital Trail Network.

The TPB encourages past recipients of TLC assistance to consider seeking TA Set-Aside funding.

TRANSIT WITHIN REACH

To encourage more projects that will provide pedestrian and bicycle access to high capacity transit, TPB launched the Transit Within Reach technical assistance program in Spring 2021

The Transit Within Reach Program funds design and preliminary engineering projects to help improve bike and walk connections to existing high-capacity transit stations or stations that will be open to riders by 2030. The program places special emphasis on projects that improve access in TPB Transit Access Focus Areas (TAFAs), which have been identified as prime locations for small capital improvements— such as sidewalks, trails, crosswalks— that will make it safer and easier to walk or bike to train stations and bus stops.

The program complements the Transportation Land-Use Connections (TLC) Program, which also funds technical assistance for local governments throughout the region. The TLC Program also promotes access to transit, but its projects address other topics as well.

REGIONAL TRANSPORTATION SAFETY PROGRAM

TPB Resolution R3-2021 adopted in July of 2020 established and funded the Regional Roadway Safety Program. It is similar to the TLC program, and many of the projects it funds also deal with pedestrian or bicycle safety.

Studies, planning, and design projects are eligible. The program provides consultant assistance of up to $60,000 for studies or planning projects, and up to $80,000 for design or preliminary engineering projects.

Federal Policies

ROUTINE ACCOMMODATION OF WALKING AND BICYCLING

U.S. Department of Transportation guidance issued in 2000 calls for bicycling and walking facilities to be incorporated into all transportation projects unless exceptional circumstances exist. Further guidance issued in March 2010 urged agencies to go beyond the minimum standards to provide safe and convenient facilities for pedestrians and bicyclists, set mode share targets, and collect data on walk and bike trips. Bicycling and walking are to have equal importance to other transportation modes. Transportation projects using federal funds may not sever an existing bicycle or pedestrian route, unless an alternate route exists or is provided.

The US DOT headquarters in Washington, D.C. sets an example for other employers by encouraging employee bicycling.

Federal and State policies have evolved over the last few decades, from not requiring (or in some cases prohibiting) the use of transportation funds for pedestrian or bicycle facilities, towards requiring the provision of such facilities. These federal and state guidelines and policies have led to an increase in the number of pedestrian and bicycle facilities provided, with more facilities provided as part of larger transportation projects rather than as stand-alone projects.

Federal and State policies are also evolving away from encouraging single-use cul-de-sac development patterns typical of the last half of the 20th century, to encouraging mixed use development and a connected street grid that is far more accessible to pedestrians and bicyclists.[13]

AMERICANS WITH DISABILITIES ACT

The ADA Requires that all New and Altered Pedestrian Facilities be made Accessible to the Handicapped

The Americans with Disabilities Act (ADA) is a federal civil rights statute that prohibits discrimination against people who have disabilities. Under the ADA, designing and constructing facilities that are not usable by people with disabilities constitutes discrimination. Public rights of way, including pedestrian facilities, are required by federal law to be accessible to people with disabilities.

Both new and altered pedestrian facilities must be made accessible to persons with disabilities, including those who are blind or visually impaired. The courts have held that if a street is to be

[13] Southworth, Michael and Eran Ben-Josesph, *Street Standards and the Shaping of Suburbia,*

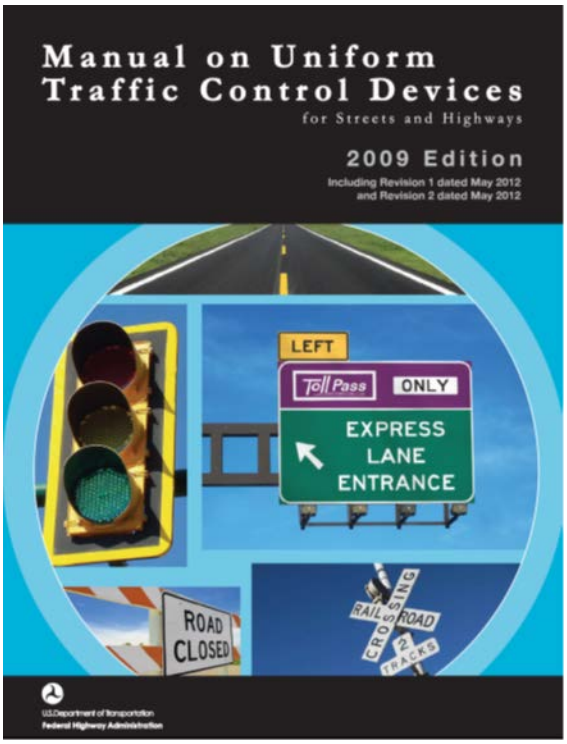
Journal of the American Planning Association, Volume 61, Number One, Winter 1995.

altered to make it more usable by the general public, it must also be made more usable for those with disabilities.

Government facilities which were in existence prior to the effective dates of the ADA and which have not been altered are not required to be in full compliance with facility standards developed for new construction and alterations. However, they must achieve 'program access.' That is, the program must, when viewed in its entirety, not deny people with disabilities access to government programs and services. For example, curb ramps may not be required at every existing walkway if a basic level of access to the pedestrian network can be achieved by other means, e.g., the use of a slightly longer route. Municipalities should develop plans for the installation of curb ramps and accessible signals such that pedestrian routes are, when viewed in their entirety, accessible to people who are blind or visually impaired within reasonable travel time limits. [14]

Design standards for the disabled, such as smoother surfaces, adequate width, and limits on cross-slope, are also beneficial for the non-disabled pedestrian. Good design for persons with disabilities is good design for all. More information on the Americans with Disabilities Act is available from the US Access Board.

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES



The *Manual on Uniform Traffic Control Devices for Streets and Highways*, or MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. It includes pedestrian and bicycle signs and signals.

The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F. It can be found at http://mutcd.fhwa.dot.gov/. The 11th edition of the manual is currently in the public comment process.

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THE FAST ACT

Under the FAST act (Fixing America's Surface Transportation Act) the federal transportation legislation signed in December 2015, bicycle and pedestrian projects remained broadly eligible for nearly all funding categories, including transit funding, either for projects incorporated into something larger, or for stand-alone bicycle and pedestrian projects.

[14] American Council for the Blind, *Pedestrian Safety Handbook: A Handbook for Advocates.* www.acb.org

The FAST Act built on MAP-21 (Moving Ahead for Progress in the 21st Century Act), which was enacted in 2012, to strengthen the role of Metropolitan Planning Organizations in regional planning. MPOs now have an enhanced role in transportation safety planning and goal-setting, and more control over Transportation Alternatives funds, which are often used for walking and bicycling projects.

Nearly All Federal Transportation Funds may be used for Bicycle and Pedestrian Projects

Transportation Alternatives

The FAST Act eliminated the MAP-21 Transportation Alternatives Program (TAP) and replaced it with a set-aside of STBG (Surface Transportation Block Grant) funding for transportation alternatives. These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

Similar to MAP-21, after the set-aside for the Recreational Trails Program, the FAST Act requires FHWA to distribute 50 percent of TA funds to areas based on population (suballocated), with the remainder available for use anywhere in the State.

States and MPOs for urbanized areas with more than 200,000 people are required to conduct a competitive application process for the use of TA funds; eligible applicants include tribal governments, local governments, transit agencies, school districts, and a new eligibility for nonprofit organizations responsible for local transportation safety programs.

Under Map-21, the FAST Act, and the most recent transportation bill (IIJA), large MPOs, including the Transportation Planning Board, play an enhanced role in project selection for a portion of program funds sub-allocated to large metropolitan regions. For the National Capital Region, this program offers an opportunity to fund regional priorities and complement regional planning activities.

In the National Capital Region, the TA Program is framed as a complementary component of the TPB's Transportation/Land-Use Connections (TLC) Program, which provides technical assistance for small planning studies to TPB member jurisdictions, and a potential implementation tool for the bicycle and pedestrian components of the Visualize 2045 plan.

INFRASTRUCTURE INVESTMENT & JOBS ACT (IIJA) OF 2021

The new transportation bill, the Infrastructure Investment and Jobs Act was signed in November 2021. The IIJA includes $284 billion in ***new*** surface transportation spending, mostly for roads, bridges, rail and transit. It increases funding for trails, walking, and bicycling, while emphasizing the importance of connectivity, equitable access, and safety.

Active Transport Summary[15]

Transportation Alternatives is still the biggest dedicated source of funds for pedestrian, bike, and trails. Over a five year period, the Rails to Trails Conservancy estimates at the Washington region will receive an additional $122 million in TA funds, or roughly a 70% increase over current levels. The bill restricts transfers of TA funding to other purposes. Recreational trails funding will also be increased.

IIJA authorizes a number of other programs relevant to walking and bicycling, including:[16]

- ***Healthy Streets Program.*** The bill makes available $500 million for a new competitive grant program that funds grants to states, local governments and tribes to deploy cool pavements and porous pavements and to expand tree cover.

- ***Reconnecting Communities Pilot Program***. The bill makes $1 billion available for a new competitive grant pilot program of which $250 million is for planning grants and $750 million is for construction grants. This program funds projects that remove, retrofit or mitigate previously constructed barriers to mobility, access or economic development to restore community connectivity. State and local governments are eligible applicants.

- ***Active Transportation Infrastructure Investment Program.*** The bill authorizes $1 billion for a new competitive grant program for infrastructure improvements that create safe and connected active transportation facilities, including adding sidewalks, bikeways and pedestrian trails. Eligible entities include government entities.

- ***Safe Streets and Roads for All Competitive Grant Program.*** Subject to appropriation, the bill authorizes $1 billion for a new competitive grant program for local governments to implement "vision zero" plans and other improvements to reduce crashes and fatalities, especially for cyclists and pedestrians.

- ***Carbon Reduction Formula Program.*** The bill makes available $6.4 billion for a new carbon reduction formula program. **States may use funds for projects that reduce transportation emissions**, including traffic management, public transportation, **trails and paths for bicyclists and pedestrians**, advanced transportation congestion management technologies, intelligent transportation systems, projects to deploy alternative fuel vehicles, including charging infrastructure, zero emission construction equipment and vehicles and supportive facilities, diesel engine retrofits and projects that reduce transportation emissions at ports. States must develop carbon reduction plans and coordinate and consult with urbanized and rural areas.

Bicycle and Pedestrian projects remain broadly eligible for most federal transportation funding, including Surface Transportation Block Grants, Congestion Mitigation and Air Quality, and the Highway Safety Improvement Program.

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[15] Rails to Trails Conservancy presentation, December 9, 2021

[16] https://www.mondaq.com/unitedstates/government-contracts-procurement-ppp/1110054/infrastructure-investment-and-jobs-act-summary-of-key-programs-and-provisions

State Planning

DISTRICT OF COLUMBIA

The District of Columbia is to become a "walk-centric, bike-centric" city.

As the center of the Washington region, a major employment center, and one its most walkable and bikeable jurisdictions, the District of Columbia's policies have a significance larger than its population would suggest.

Reflecting its urban character, the District of Columbia is doing much to encourage walking and bicycling. District of Columbia Department of Transportation intends to create a "walk-centric, bike-centric" city. DDOT's 2010 "Action Agenda" called for safety, sustainability, and increasing livability and prosperity by creating great spaces that are the "living room" of the city.

An average District resident can reach 32,269 jobs and 117 destinations such as grocery stores, hospitals, and schools, in a 20-minute walk.

Streetscaping projects and traffic calming projects are a high priority. By providing pedestrians with plenty of well-designed, safe, and comfortable space, the city hopes to increase retail sales and property values. Business Improvement Districts are to have considerable input into transportation projects.

Due to the built-up character of the District of Columbia, DDOT aims to shift travel from less space-efficient modes, such as single occupant vehicles, to more space efficient modes, such as walking, bicycling, and public transportation.

DDOT's strategy for shifting auto trips to transit, walk, and bike trips encompasses both transportation and land development elements. The District of Columbia will encourage mixed use development projects that promote and support non-auto mobility. Reduced auto parking, increased bike parking, on-site car and bike sharing, and transportation demand management plans will reduce auto trips generated by new development.

On a citywide basis there is to be car sharing, bike sharing, new transit service, streetcars, reduced off-street parking requirements, required off-street bike parking, and rapid construction of new pedestrian and bicyclist infrastructure. The Bicycle Master Plan (2005) and Pedestrian Plan have been succeeded by the pedestrian and bicycle elements of the city's latest Transportation Plan, MoveDC.

MoveDC Update

DDOT's Bicycle Lane Program has built 95 miles of bicycle lanes in the District since 2001

In December 2021 DDOT released the most recent version of District's Transportation Plan, MoveDC. MoveDC continues in the same direction as previous planning documents, but in greater detail, and with more ambitious goals and methods. MoveDC is a 25 year plan. It proposes to (among other things):

- Improve safety for all, especially vulnerable road users, by
    a. Implementing road diets to make streets safer.
    b. Making intersections safer for pedestrians
    c. Using Complete Streets principles to make streets and sidewalks safer for all users
- Design public space to be people-focused
- Install more car-free streets and plazas
- Expand street tree coverage
- Make more efficient use of curb space
- Expand the bicycle network
- Achieve 75% non auto commute modes by 2032

Expanding the Multimodal Network

MoveDC identifies a bicycle priority network within the city, as well as pedestrian, transit, freight, and auto priority networks. DC recognizes that while every street should serve all permitted users, not every street can serve all users equally well.

MoveDC proposed adding twenty miles of protected bike lanes per year for three years, building more trails in the (National) Capital Trail Network, as well as adding more public and private bike parking, expanded access to bike sharing and micromobility, and signed neighborhood bike routes.

MoveDC will fill major gaps in the regional bicycle network, and improve connections between the District, Maryland and Virginia. MoveDC proposes a new bicycle and pedestrian crossing of the Potomac River at the Long Bridge, and three new crossings of the Anacostia. Other bridges that currently have outmoded bicycle and pedestrian facilities will be upgraded.

MARYLAND

Maryland adopted its first Bicycle and Pedestrian Access Plan in 2002. Under that plan the State made numerous advances in promoting bicycling and walking. MDOT invested more than $283 million in non-motorized transportation projects to improve bicycling and walking conditions over the last decade. The proportion of total highway expenditures dedicated to bicycle or pedestrian programs increased from 2% to 4% over the last decade.

"Maryland will be a great place for biking and walking that safety connects people of all ages and abilities to life's opportunities."

The State also created a number of grant programs, including the Maryland Bikeways Program, which provides $3 million per year in technical assistance to a wide range of bicycle network

improvements, and **Maryland Bikeshare Program** provides grants to communities interested in adding a bikeshare system, notably Montgomery County.

Maryland State Highway Administration adopted Complete Streets policy in 2012.

The current Maryland Twenty-Year Bicycle and Pedestrian Master Plan (2019) calls for a Complete Streets approach. Complete Streets in Maryland means that the state transportation network will address the needs of all users, regardless of travel mode. It does not, however, mean that all users will have equal priority on all roadways. Design is to be appropriate for the land use and context, including Urban Centers, Towns and Suburban Centers, Rural and Agricultural Areas, and Natural Areas.

The initial focus will be to support biking and walking in urban centers and main streets. MDOT will pilot a Bicycle and Pedestrian Prioritization Area (BPPA) program to foster collaboration with local jurisdictions and support the development of connected bicycle and pedestrian networks in high need locations.

Maryland hast also published *Accessibility Policy and Design Guidelines for Pedestrian Facilities along State Highways* (2010), *Bicycle Policy and Design Guidelines* (2015), the *Maryland Context-Driven Design Guide* (2020), a *Strategic Trails Implementation Plan* (2009), a bicyclist education video, and other materials designed to share information on best practices with respect to the engineering, education, and enforcement aspects of walking and bicycling.

A Bicycle and Pedestrian Advisory Committee advises State government agencies on issues directly related to bicycling and pedestrian activity including funding, public awareness, safety and education.

VIRGINIA

In 2004, the Virginia Department of Transportation released its Policy for bicycle and pedestrian accommodation, which commits VDOT to routinely accommodating pedestrians and bicyclists as part of all new construction and reconstruction projects, unless exceptional circumstances exist.[17]

"VDOT will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking."

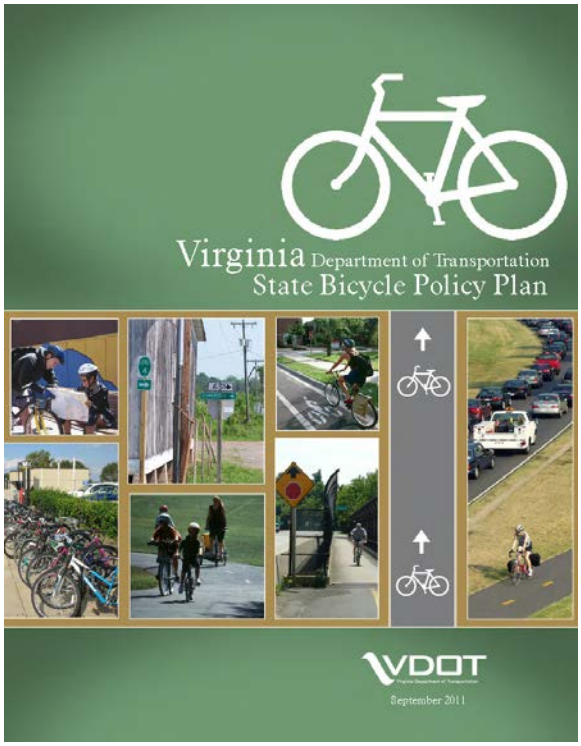
[17] www.virginiadot.org

Since 2004 VDOT has developed a process to ensure that bicycle and pedestrian accommodations are provided in accordance with the policy. The Bicycle and Pedestrian Accommodations Decision Process gives designers a step by step process to determine if bicycle / pedestrian accommodations are appropriate for the characteristics of a particular roadway, and a Bicycle and Pedestrian Accommodations list and a design guide provides project managers with a menu of possible accommodations. A series of implementation guidance documents for localities have also been developed to improve communication between agencies regarding planning and accommodation of pedestrians and cyclists under terms of the 2004 policy.

VDOT maintains all roads in Virginia outside of urban areas, including thousands of miles of residential streets originally built by developers. In view of the importance of secondary streets for vehicular, pedestrian, and bicycle movement, VDOT has revised its Secondary Street Acceptance Requirements (SSAR) to mandate higher levels of street connectivity in urban areas, as well as adequate pedestrian accommodation. New streets and developments are required to connect to the surrounding streets and future developments in a way that adds to the capacity of the transportation network.

Virginia requires new developments to connect with the surrounding streets

The policy divides Virginia into "compact", suburban, and rural areas, with graduated connectivity requirements for each. Narrower streets, traffic calming and "context-sensitive" design are encouraged where appropriate.
New development proposals initially submitted to counties and VDOT after June 30, 2009, must comply with the requirements of the SSAR.
Cul-de-sac development patterns have long been an obstacle to walking or bicycling in suburban areas. More direct, traffic-calmed secondary streets will allow more people to walk or bike to local destinations.



Virginia has adopted a fairly stringent set of requirements mandating accommodation of pedestrians and bicyclists on both public roads and private developments which are accepted by State for maintenance, which in Virginia means almost all development. As the economy recovered from the late 2000's recession, and new development applications have come under the new rules, we have seen results.

Virginia State Bicycle Policy Plan

VDOT completed a State Bicycle Policy Plan in April, 2010, which incorporates the policies discussed above, as well as the most recent federal guidance. The plan calls for bicycling for increased bicycling for all trip purposes, and a transportation system that "accommodates and encourages" bicycling by providing facilities for bicyclists of all ages and abilities. It also calls for better data gathering and benchmarking of bicycling, coordination with

various stakeholders, and recommends a number of strategies to improve implementation of VDOT's 2004 policy for bicycle and pedestrian accommodation.

The plan provides some guidance on bicycle facilities to be used. Bicycle lanes and paved shoulders are recommended over other bicycle facilities. Restriping travel lanes, or "road diets" are recommended as a way to provide bicycle lanes within the current right of way. Actuated traffic signals should be able to detect bicycles, and bicycle compatible drain grates should be used on all roads where bicycles are permitted. A signed bike route should have at least a bicycle level of service "C".

Virginia State Pedestrian Policy Plan

VDOT completed the Pedestrian Policy Plan. Released in September 2014, this document is a complement to the Bicycle Policy Plan, which was released in September 2011.

The purpose of this plan is to establish a vision for the future of walking in Virginia and to advance the walking element of the Commonwealth Transportation Board's Policy for Integrating Bicycle and Pedestrian Accommodations consistently, appropriately and cost-effectively. The plan addresses implementation of both the Bicycle and the Pedestrian Policy Plans.

Northern Virginia Bikeway Study

This study and network map, which were completed in 2004 and updated in 2015, used latent demand analysis to determine the most promising portions of a network of regionally significant bicycle routes in Northern Virginia. As of 2015, 108 miles of the 544 mile network had been built.

Local Bicycle and Pedestrian Planning

Nearly every jurisdiction in the region has completed a bicycle or pedestrian plan, and most have at least part time bicycle or pedestrian planner. Table 1 shows local and state plans and studies and the year published. Jurisdictions and agencies drew projects from these individual plans and submitted them for incorporation into the Regional Bicycle and Pedestrian Plan. Local plans may include unfunded projects.

Table 1: Bicycle and Pedestrian Plans and Studies

Jurisdiction/ Agency	Plan/Study	Year
Arlington County	Arlington Master Plan - Pedestrian Element, Bicycle Element	2011, 2019
City of Alexandria	Transportation Master Plan – Pedestrian and Bicycle Chapter	2016

District of Columbia	District of Columbia Bicycle Master Plan, District of Columbia Pedestrian Master Plan, MoveDC	2005, 2009, 2014, 2021
Charles County	Charles County Bicycle and Pedestrian Master Plan	2012
City of Fairfax	Bike Fairfax City Plan	2021
City of Falls Church	Bicycle Master Plan	2015
Fairfax County	Fairfax County Bicycle Master Plan	2014
Frederick County	Frederick County Bikeways and Trails Plan	2018
City of Gaithersburg	Transportation Plan, Bikeways and Pedestrian Plan	2010
Greenbelt	Greenbelt Bicycle and Pedestrian Master Plan	2013
Town of Herndon	Bicycle Network Master Plan	2019
City of Laurel, Maryland	Bikeway Master Plan	2009
Loudoun County	Loudoun County Bicycle and Pedestrian Master Plan	2003
City of Manassas	City of Manassas Transportation Master Plan	2019
Maryland Department of Transportation	Maryland Twenty Year Bicycle and Pedestrian Master Plan SHA Complete Streets Policy 2009 Maryland Trails Strategic Implementation Plan	2019, 2014, 2012, 2008
M-NCPPC – Prince George's County	County Master Plan of Transportation – Bikeways and Trails	2009
Montgomery County	Montgomery County Bicycle Master Plan	2018
National Capital Planning Commission	Comprehensive Plan for the National Capital - Transportation	2020

National Capital Region Transportation Planning Board	Priorities 2000: Metropolitan Washington Greenways & Circulation Systems, Bicycle and Pedestrian Plan for the National Capital Region	2001, 2006 2010 2014 2021
National Park Service	Paved Recreation Trails Plan, Paved Trails Plan	1990 2016
Prince William County	Transportation Plan – Nonmotorized	2016
City of Rockville	Bikeway Master Plan	2017
Virginia Department of Transportation	Virginia Pedestrian and Bicycle Policy Plans	2014 2011
Virginia Department of Transportation, Northern Virginia Office	Northern Virginia Regional Bikeway and Trail Network Study	2015
WMATA	Metrorail Bicycle & Pedestrian Access Improvements Study, WMATA Station Area Access Guide	2010 2017

The Washington Region is fortunate to host a community of consultants and agencies that are advancing the national practice of bicycle and pedestrian planning.

For example, the Montgomery County Bicycle Master Plan uses the concept of a "low-stress bicycle network". Low stress bike routes are accessible to people of all ages and abilities.

Montgomery County will increase the share of bike trips that can be accomplished entirely on low stress streets from 16% to 50%.

While about 75 percent 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 bikability, cut off from most useful destinations.

The goal is to connect these islands of bikability, and increase the share of bicycle trips that can be accomplished entirely on low-stress facilities from 16% to 50%. The County will also sharply increase the percentage of residences within two miles of a high-capacity transit station that have low-stress bike access to that station, as well as the percentage of schools and other public facilities that are easily accessible by bike.

The proposed 1,125-mile network of bikeways will include 585 miles of sidepaths, 174 miles of trails, 130 miles of bikeable shoulders, 95 miles of separated bike lanes and 49 miles of neighborhood greenways. More than one-quarter of this network currently exists. Much of the County's proposed long-distance "Breezeway" bike network has been incorporated into the planned National Capital Trail Network.

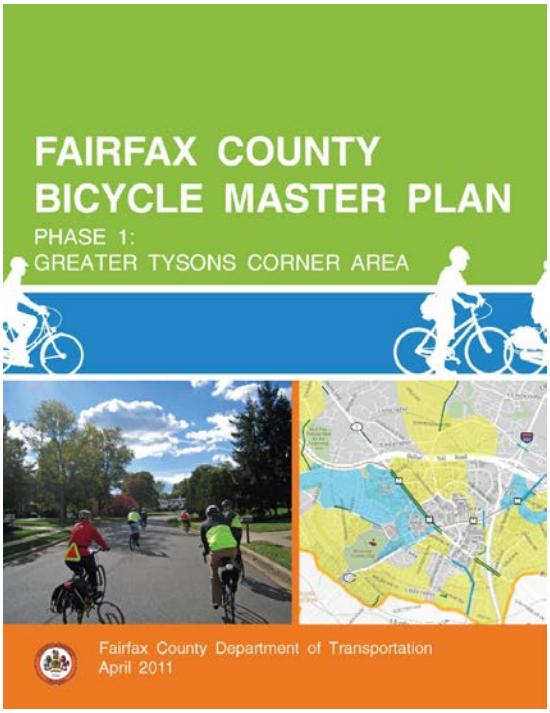
Safe Routes to School

Safe Routes to School is a national movement that encourages students to travel to and from school by walking or bicycling. Safe Routes to School efforts are supported by parents, schools, community leaders, Safe Routes to School coordinators and local, state, and federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. The Safe Routes to School movement in the United State grew exponentially with a federal funding program starting in 2005. In 2012, Safe Routes to School was incorporated into the Transportation Alternatives program, but Safe Routes to School programs continue to grow.

DC Schools Teach Students How to Ride Bikes

In the Washington DC region, Safe Routes to School programs have flourished. The majority of school systems in the region have access to a Safe Routes to School coordinator either within the school district or in the department of transportation.

Metrorail Silver Line



Since 2010 one of the most significant changes in the region has been the extension of the Metrorail to Tysons Corner in Fairfax County to Dulles Airport and beyond. This Metrorail extension is generating new, walkable development.

Tysons, already the second-largest commercial center in the region, is undergoing a dramatic transformation from an auto-oriented commercial "edge city" to a mixed-use urban downtown. The four new Metrorail stations in Tysons will provide the foundation for this shift. Pedestrian and bicycle access will be critical to making a redeveloped Tysons work.

Future Silver Line stations along the Dulles Tollway will serve park and ride commuters, but will also incorporate some development and some pedestrian and bicycle access, in an area which has been overwhelmingly oriented towards driving. Plans call for an eventual extension further into Loudoun County, which has been working on station-area pedestrian and bicycle access plans.

WMATA Bicycle and Pedestrian Access Planning

In recent years WMATA has become a regional leader in pedestrian and bicycle access and safety, both on and off WMATA property. WMATA's priorities include signage and crosswalk striping on and around stations, designated and improved bicycle access routes into stations, resurfacing deteriorated sidewalks, lighting, and high security bicycle parking.

Metrorail Access needs: Improving pedestrian and bike access at and around stations is often a more cost-effective way to boost ridership than to add car parking or connecting bus service. Approximately 45% of Metrorail customers live within walking or bicycling distance from a station (up to 3 miles).

Transit Oriented and Joint Development: Walkable and bikeable station areas will have a positive and mutually reinforcing impact on Metro's Joint Development programs and local government's encouragement of Transit Oriented Development (TOD). Bringing more people out into the streetscape will increase visibility and safety of those on foot and bike, while also demonstrating the viability of similar future developments.

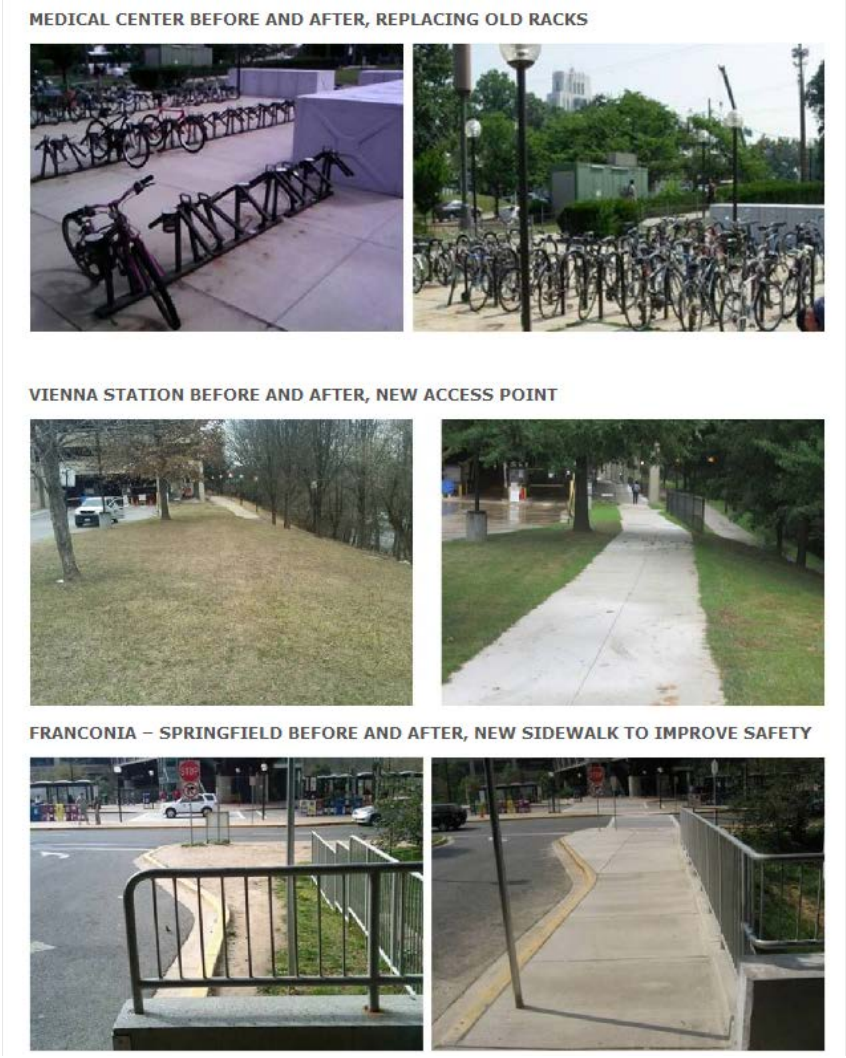


Figure 7: Access to Metrorail

In its 2010 *Metrorail Bicycle and Pedestrian Access Improvements Study* WMATA identified pedestrian and access problems at its Metrorail stations. A number of the projects identified as part of that process, totaling $25 million, have been funded in WAMA's Capital Improvement program. A few examples of completed projects are shown above. WMATA is no long builds fences to keep pedestrians out of its rail stations.

WMATA also identified "hot spots" of short distance auto access; i.e. places where people live close enough to walk to Metro, but don't, and studied those areas to find out what was missing.

WMATA's 2017 *Station Area Planning Guide* provides concise, clear design guidance for station site and access planning at Metrorail stations. The guide is meant to enhance user access and promote transit-oriented development around the station. Access hierarchies are provided for different station types. Intended users include WMATA, jurisdictional planners, related government agencies, and WMATA's real estate partners.

Outlook

Policies in the Washington region has become much more favorable to walking and bicycling over the last three decades, and the change has only accelerated since 2015. Bicycling and walking has become an integral part of transportation planning at all levels. The Federal, State, and local policy context has changed in ways that make it more likely that the goals of these plans will be met. Pedestrian and bicycle accommodation is no longer an optional "amenity"; it is built into nearly every project and new development.

Since the economy recovered from the great recession, the effects of the policy changes have become evident in the way people live, work, and travel in our region.

Implementation of walk and bike friendly policies is likely to accelerate. As the cleanest, most energy efficient modes of transportation, walking and bicycling will play a significant role in addressing the challenge of climate change, while continuing to address the issues of congestion, health, air quality, safety, access, and economic development.

CHAPTER 2: BICYCLING AND WALKING IN THE WASHINGTON REGION

Introduction

This chapter discusses what we know about bicycling and walking trip mode shares in the Washington region. It draws on a number of sources, including the TPB's Regional Travel Survey, the US Census American Community Survey, the National Household Travel Survey, the Commuter Connections *State of the Commute* survey, WMATA's Passenger Rail Survey, and various bicycle and pedestrian counting programs. It compares walking and bicycling in the Washington region with national trends, as well as trends in other major metropolitan areas.

Data Sources

The different data sources each have their own strengths and weaknesses. The samples and information tracked are different. The US Census American Community Survey has the largest sample size, and is the most reliable for work trips, and for small geographical units. It does not track non-work trips. The TPB's Regional Travel Survey is the best source for non-work trips, but it happens only once every ten years. The Commuter Connections *State of the Commute* survey, which is done every three years, surveys employed adult residents, and asks questions about demographics and attitudes towards the commute not found in other sources.

OVERVIEW

Residents of the Washington region walk and bicycle slightly more than in the nation as a whole. Bicycling has grown faster in the Washington region than in other large Metro areas.

Nationally, 12% of all trips are made on foot or by bike

The walk and bike modes are more common than the census commute mode numbers would lead one to believe. Work trips account for about one quarter of all trips, and walking and biking are more common for other purposes. According to the National Household Travel Survey 12% of all trips taken in the U.S. are on foot or by bike.[18]

Geography/urban design, age, race, ethnicity, gender, and car ownership affect the decision to walk or bicycle.

[18] https://nhts.ornl.gov/assets/FHWA_NHTS_Brief_Bike%20Ped%20Travel_041520.pdf

People living in households without cars are more likely to walk or bicycle than those that have one, and those living in households with only one car are more likely to walk or bicycle than those owning two. Whites are more likely to bicycle than African-Americans or Hispanics.

Men are more than twice as likely to bike to work as women, 0.7% to 0.3%. [19]

Regionally, bicycling and walking are concentrated in the core neighborhoods of the Washington region, especially areas near downtown D.C. and certain Metro stations, as well as college campuses and military bases.

Trips in the Urban Core are Mostly Short Enough to Walk or Bike

In the past decade walk mode share for all trips in the Washington region has stabilized, while bike mode shares have grown, especially in the urban core. Bicycling is rare in the outer jurisdictions.
Trips in the outer suburbs are usually farther than most people are willing to walk or bicycle.

Most commute trips that are short enough to be bikable are still taken by car. The average trip distance to transit or carpool is short.

Transit and walking are interdependent, with 80% of bus and 60% of Metrorail access trips on foot. Pedestrian access to Metrorail has grown over the last decade, while motor vehicle access has fallen. Bicycling to transit is less common and varies greatly by Metro station, with the lowest rates of bicycle access found east of the Anacostia river.

US CENSUS

2020 US Census data is not yet available. The ACS data is currently the most up to date source of information on walk and bike mode shares The five-year rolling averages are reasonably accurate down to the census tract level.

At a national level, in 2019 2.7% of Americans walked to work, and 0.5% bicycled to work. In the Washington region 3.3% of workers walked to work, while 0.9% bicycled to work.

Tables 3 and 4 show the share of walking and bicycling trips to work for the ten largest metropolitan areas.

Table 2: Pedestrian Commuting in Large Metro Areas

	Pedestrian Commuting in the Ten Largest Metropolitan Areas[20]	% Walk to Work 2006-2008	% Walk to Work 2000 Census	% Walk to Work 2008-2012	% Walk to Work 2015-2019
1	New York	6.2%	5.55%	6.2%	5.9%
2	Boston	4.8%	4.12%	5.3%	5.4%
3	San Francisco	4.2%	3.25%	4.3%	4.7%
4	Philadelphia	3.7%	3.88%	3.7%	3.6%

[19] https://data.census.gov/cedsci/table?q=coummute%20mode%20united%20states&text=S0801&g=0100000US_0500000US51179&tid=ACSST1Y2019.S0801

[20] 2000 US Census, 2006-2008, 2008-2012 American Community Survey, 2015-2019 American Community Survey

5	Washington	3.0%	3.10%	3.2%	3.3%
6	Chicago	2.9%	3.13%	3.1%	3%
7	Houston	1.5%	1.62%	1.4%	3%
8	Los Angeles	2.6%	2.56%	2.7%	2.5%
9	Detroit	1.5%	1.83%	1.4%	1.4%
10	Dallas-Fort Worth	1.3%	1.48%	1.2%	1.2%
	United States	2.8%	2.93%	2.8%	2.7%

Table 3: Bike Commuting in Large Metro Areas

Bicycling is growing faster in the Washington region than in other large Metro Areas

	Bicycle Commuting in the Ten Largest Metropolitan Areas	% Bike to Work 2006-2008	% Bike to Work 2000	% Bike to Work 2008-2012	% Bike to Work 2015-2019
1	San Francisco	1.4%	1.12%	1.7%	1.9%
2	Boston	0.7%	0.38%	0.9%	1.1%
3	Washington	0.5%	0.30%	0.6%	0.9%
4	Los Angeles	0.7%	0.63%	0.9%	0.7%
5	Chicago	0.5%	0.31%	0.6%	0.7%
6	New York	0.4%	0.30%	0.5%	0.7%
7	Houston	0.3%	0.30%	0.3%	0.7%
8	Philadelphia	0.5%	0.33%	0.6%	0.6%
9	Detroit	0.2%	0.18%	0.2%	0.2%
10	Dallas--Fort Worth	0.2%	0.14%	0.2%	0.1%
	United States	0.5%	0.38%	0.6%	0.5%

Long Run Trends

Throughout the second half of the 20th Century, driving increased, while walking bicycling, and public transportation declined. In 2000 2.93% of Americans walked to work, and 0.38% bicycled. By comparison, in 1960 9.9% of workers walked to work.[21] The number of people driving alone rose from 73.2% in 1990 to 75.7% in 2000, while use of public transportation fell by 0.5%.

In the 21st Century, solo driving, transit, walking and bicycling mode shares have stabilized. 76.3% of workers drove alone in 2019, which is essentially the same as in 2000, and public transportation grew from 4.7% to 5%.

The 20th Century trend towards less walking and bicycling also applied to the Washington Metropolitan Statistical Area (MSA). In 1990, 6,633 people (0.3 %) biked to work on an average day in the Washington area and 85,292 (3.9 %) walked. In 2000, 7,532 people (0.3%) biked to work and 72,700 (3.1%) walked. In the first decade of the 21st century walk mode stabilized around 3.2%, while bike mode share doubled, to 0.6%. In 2019 the walk mode share was 3.3%, and the bike mode share increased to 0.9%.

[21] 1960 Census of Population, Characteristics of Population, United States Summary

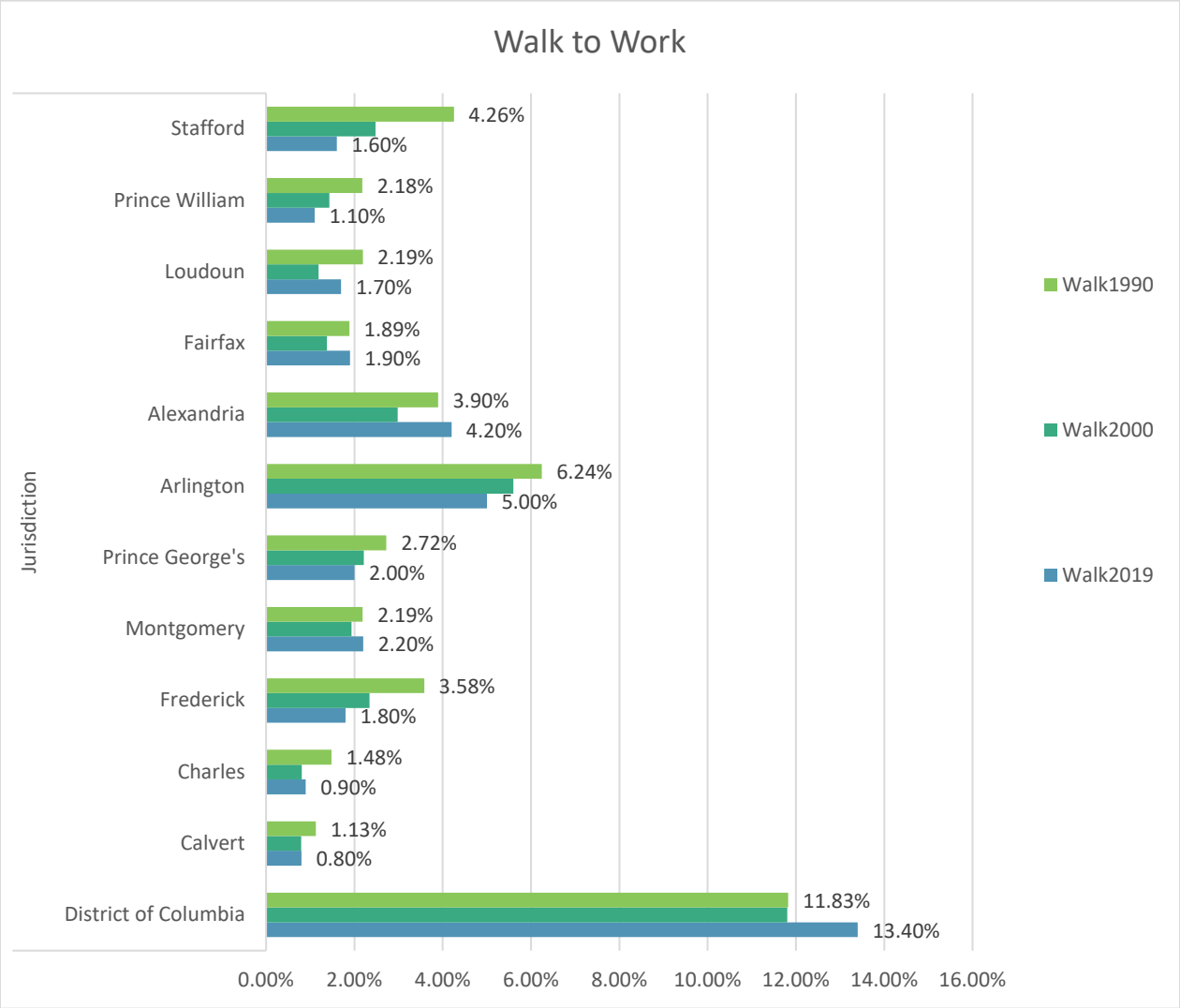


Figure 8: Walk to Work

Only DC and Alexandria saw much increase in walking to work between 1990 and 2019. Cuts in military personnel at bases after 1990 affected walk to work numbers in some jurisdictions.

The urban core of the Washington region, consisting of the District of Columbia, Arlington, and Alexandria saw major gains in bicycling between 1990 and 2019. The District of Columbia increased its bicycle commute mode share by a factor of six, and Arlington and Alexandria tripled theirs.

Bicycling mostly increased in the inner suburbs, but from a very low base. Montgomery County tripled its bike commute mode share, to 0.6%.

The exurban counties of Calvert and Stafford had few people bicycling to work in 1990, and that number fell further during the decades that followed. The American Community Survey counted 18 bicycle commuters in Stafford County in 2012, and 25 in Calvert County.

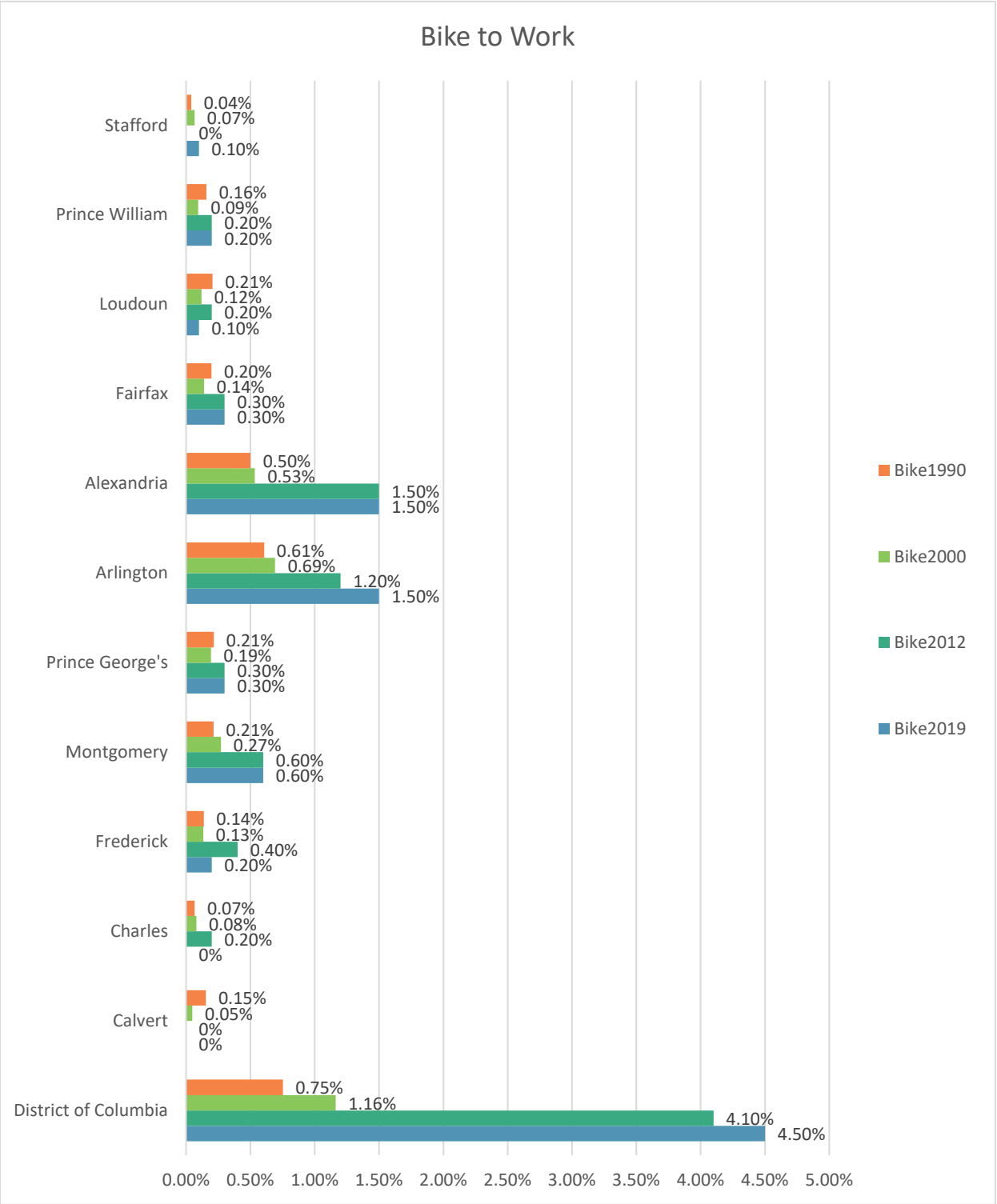


Figure 9: Bike to Work

The inner suburban jurisdictions of Fairfax, Montgomery, and Prince George's saw a decline in walking to work in the 1990's, which was reversed in the 2000's, leaving them roughly where they were in 1990. Bike mode share increased from 1990-2012, but from a low base.

Only DC and Alexandria saw much increase in walking to work. Cuts in military personnel at bases after 1990 affected walk to work numbers in some jurisdictions.

Bicycling mostly increased in the suburbs, but from a very low base. Frederick County more than doubled its bike mode share, to 0.6%.

The exurban counties of Calvert and Stafford had few people bicycling or walking to work in 1990, and that number fell further during the decades that followed. The American Community Survey counted 18 bicycle commuters in Stafford County in 2012, and 25 in Calvert County.

Mode Share by Census Tract

The Census Bureau has released an application that will shows American Community Survey five year data at the census tract level, including walk commuting numbers.[22]

Walking and bicycling are hyper-local, with big differences between census tracts even within the same city or county.

Zooming in to the Washington region, the maps show that bicycling and walking are concentrated in the neighborhoods surrounding downtown D.C., Capitol Hill, and North Arlington. Downtown DC and the surrounding neighborhoods show the highest walk mode shares, as much as 52%, while those a little further out have the highest bike mode shares. Outside DC, North Arlington, Old Town Alexandria, downtown Bethesda, and the City of Frederick the highest (non-campus) walk mode shares.

College campuses and military bases such as University of Maryland, Ft. Meyers, Bolling Air Force Base, the National Institute of Health, George Mason, Howard, Georgetown and Gallaudet all have high walk and bike mode share.

Census tracts abutting major facilities such as the W&OD, the C&O, and the Mt. Vernon Trails tend to show higher levels of bicycling than the surrounding suburban tracts. However, the highest bike mode share by far is in the ring of neighborhoods within easy biking distance of downtown DC, on the order of 10-15%. A dense network of on-street bicycle facilities, and proximity between housing and employment, seems to be more predictive of bicycling than an isolated trail.

[22] https://data.census.gov/cedsci/. A training video is also available at https://www.census.gov/data/academy/data-gems/2020/how-to-access-data-for-your-neighborhood.html.

NATIONAL HOUSEHOLD TRAVEL SURVEY

Only 9% of weekday walk/bike trips in the US are trips to work

The Federal Highway Administration's Household Travel Survey is the best national source for non-work trips. It includes trips made by all modes of travel, and for all purposes.

According to the 2017 National Household Travel Survey (NHTS), Americans ages 5+ reported more than 42.5 billion trips by walking or biking These trips averaged 1 mile in length and 16 minutes in duration and comprised almost 12% of all trips annually (across all modes and purposes).[23]

Only 9% of weekday non-motorized trips were commute trips. Another 2% were work-related. Weekend work trips were only 4% of the total. 37% of weekday trips were social/recreational, as were 49% of week-end trips.

2017/2018 REGIONAL TRAVEL SURVEY

The TPB's once-in-a-decade Regional Travel Survey (RTS) helps paint a detailed picture of the daily travel patterns of people who call this region home. The survey, which has been conducted approximately every ten years since 1968, collects demographic and travel information from a randomly-selected representative sample of households in the region and adjacent areas. It is the primary source of observed data used to estimate, calibrate, and validate the regional travel demand model, which is used for the travel forecasting and air quality conformity analysis of the region's long-range transportation plan. The survey data are also used to analyze travel trends and for other key program activities. Over 16,000 households responded to the 2017/2018 survey.

Figure 9: Core, Inner Suburbs, Outer Suburbs

The initial results of the 2017/2018 RTS were made available in a series of presentations. TPB staff have prepared additional tabulations that provide insights on travel patterns in the region.

The Regional Transportation Data Clearinghouse (RTDC) RTS Tabulations are an online resource for the RTS data to be used by practitioners, researchers, and other stakeholders.

[23] https://nhts.ornl.gov/assets/FHWA_NHTS_Brief_Bike%20Ped%20Travel_041520.pdf

Advantages

The regional travel survey is the best overall source of data on non-motorized trips in the Washington region. Unlike the US Census, the regional travel survey includes information on non-work trips. Almost ¾ of the trips in the Washington region are non-work trips.

Mode Shares in 2017/2018

The RTS shows that commute trips are only about a quarter of the total trips in the region. Drive alone is less significant for all trips than it is for commuter trips, and walk is more significant.

Table 4: All Trips

	TPB Region	
Travel Mode	**N**	**%**
Drive Alone	40784	39.9
Drive Others	13141	15.8
Auto Passenger	15429	21.5
Rail Transit	5895	5.0
Bus Transit	2080	2.0
Walk	**10555**	**9.6**
Bike	**1292**	**1.4**
Ride-Hail/Taxi	1200	1.0
School Bus	2022	3.4
Other	461	0.4

Table 5: Commute Trips

	TPB Region	
Travel Mode	**N**	**%**
Drive Alone	10046	62.2
Drive Others	507	3.4
Auto Passenger	627	4.1
Rail Transit	3541	17.6
Bus Transit	861	4.6
Walk	**766**	**3.8**
Bike	**480**	**2.6**
Ride-Hail/Taxi	255	1.3
School Bus	9	0.1
Other	54	0.2

Median Trip Distances

People will travel farther for work. For non-commute purposes, the median distances that people walk or bicycle are short.

Table 6: Trip Distances in Miles

Travel Mode	All	Commute	Non-commute
Drive Alone	4.3	9.3	3.1
Rail Transit	8.6	9.3	6.9
Bus Transit	3.3	4.5	2.9
Walk	**0.3**	**0.7**	**0.3**
Bike	**1.6**	**3.0**	**1.0**
Ride-Hail/Taxi	3.6	4.6	3.3

Changes Since the 2007/2008 Survey

Bike mode share in DC increased from 1.6% to 5.3%

- Bike mode share increased from 0.6% to 1.4% for all trips in the region.
- Walk mode share increased slightly, from 9.1% to 9.3%
- Dramatic increase in bicycle trips in the urban core
- Rail transit declined, and bus transit was stable.
- The differences between the urban core and the outer suburbs are becoming sharper. Walk/bike/ride hail increased in the urban core, while drive alone increased in the outer suburbs.

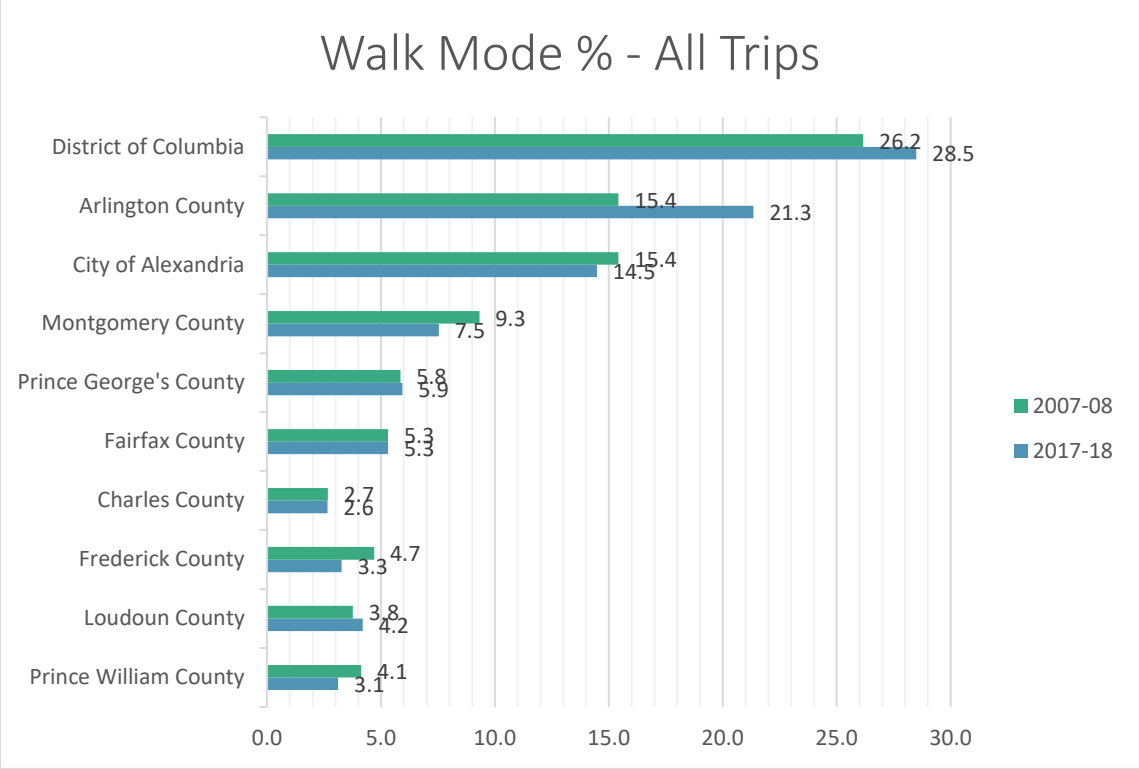


Figure 10: Walk Mode

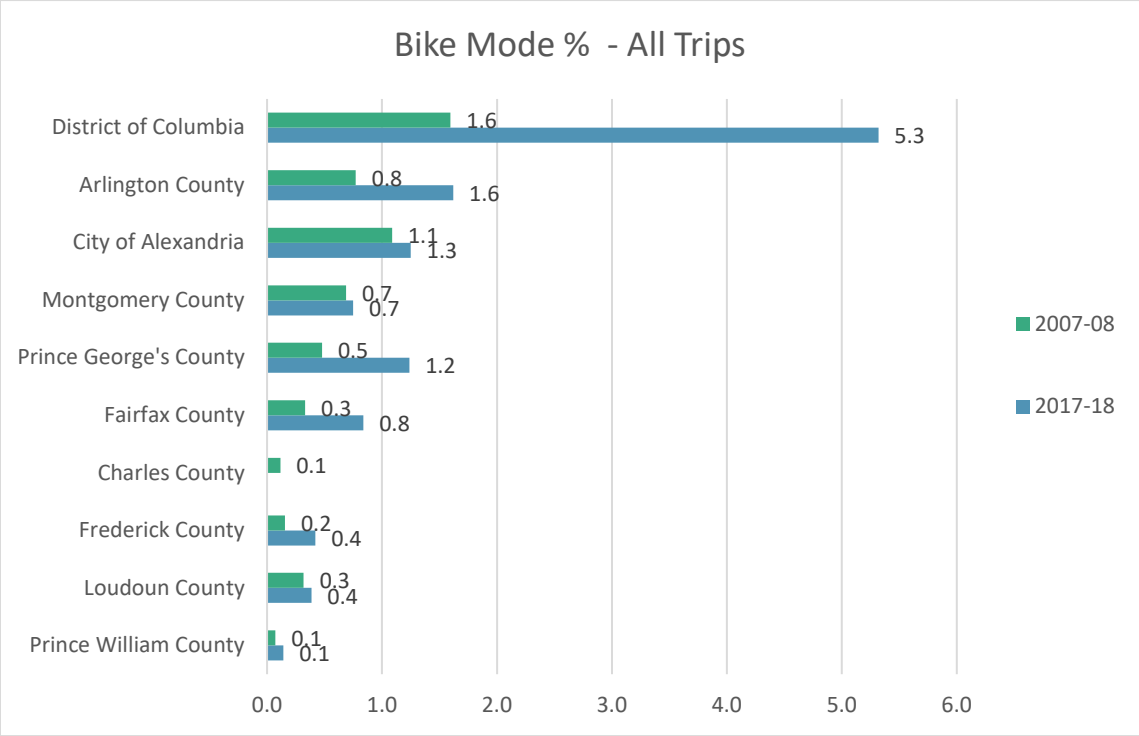


Figure 11: Bike Mode

BICYCLE/PEDESTRIAN COUNTS

Historically agencies have relied on manual counts of pedestrians and bicyclists, often carried out by volunteers. Manual counts have a number of disadvantages, notably cost, an inherently limited time window, unrepresentative counts due to weather events, and a lack of data on cyclists' and pedestrians' off-peak presence. As a result, there has been a move towards the use of automated bicycle and pedestrian counters.

On the downside, the counters require maintenance, and are occasionally out of order, resulting in gaps in the data.

Arlington County has by far the largest automated counting program in the region. Arlington's first two automated bike and pedestrian counters were installed in the fall and Spring of 2009-10 on the Custis and Four Mile Run Trails. They use a combination of in-ground inductive loops and passive infrared detectors to collect data on trail volumes and travel direction. The loops detect metal, which distinguishes a bicyclist from a pedestrian.

The County currently has 32 permanent installations, and six portable counters to gauge and monitor usage and demand. Mobile counters are used to estimate facility needs and guide negotiations with developers.

The data show that people continue to ride in bad weather, but are deterred by snow and ice on the trails, which are not plowed. Weekday bike traffic peaks during the morning and evening rush hours, while week-end traffic peaks mid-day.

BikeArlington Dashboard

Arlington automated counter data can be found on the BikeArlington dashboard, along with automated count data from Alexandria, DC, Montgomery County, and Prince George's County. The dashboard can be queried for pedestrians and/or bicyclists by time period, day of the week, direction, and a number of other variables.

National Park Service has completed an exploratory study on a regional bike/ped count system, which could include analysis of data collected by the counters, as well as possibly consolidation of maintenance.

DC Counters & Dashboard

The District Department of Transportation (DDOT) maintains a system of automated counters to measure the number of people walking and biking. DDOT began installing these counters in 2014, and now has 18 in operation. Counters have been installed in both bicycle lanes and trails. One location counts only pedestrians; 10 locations count only bikes; and 7 locations count people biking and walking.

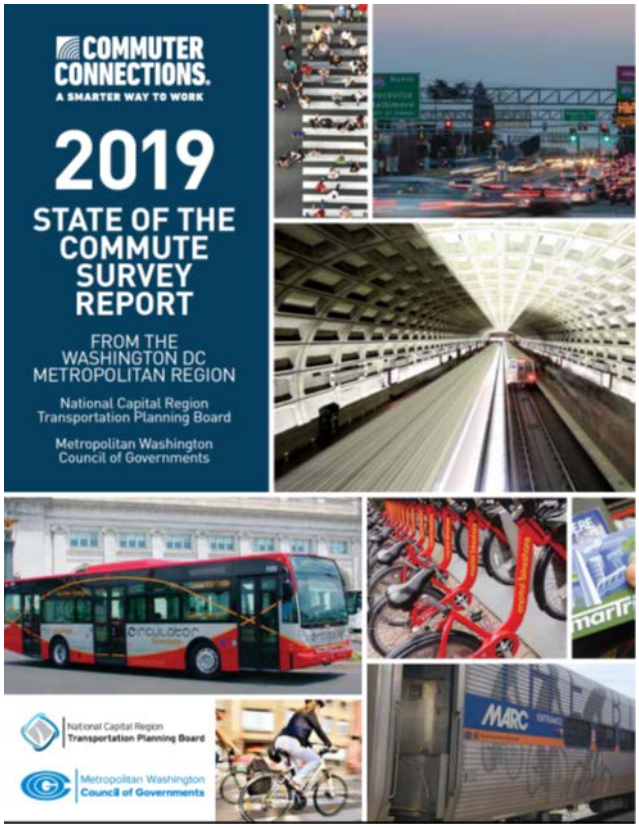
DDOT monitors the continuous data stream to analyze trends in walking and biking, assess the value of its facility investments, and apply this data to plan for new bike lanes and trails. DDOT has created a dashboard where the public can view the counts at each counter.[24]

Regional Transportation Data Clearinghouse

Other bicycle and pedestrian counts from around the region, including both manual and automated counts, are posted on COG's Regional Transportation Data Clearinghouse.

[24] https://ddot.dc.gov/page/dc-automated-bicycle-and-pedestrian-counters

COMMUTER CONNECTIONS STATE OF THE COMMUTE SURVEY



Ethnicity, geography, income, age, and car ownership affect the decision to walk or bicycle to work. The best recent source of this demographic information on pedestrian and bicycle commuters in the Washington region is the 2019 Commuter Connections *State of the Commute Survey*.

The SOC survey is conducted every three years and documents regional trends in commuting patterns, such as commute mode shares and distance traveled, and prevalent attitudes about transportation services. The resulting data is used to estimate the impacts of several Commuter Connections program services, such as carpooling incentives. Several new modes, such as ride-hail and scooters/bikeshare, were added to the 2019 survey.

The survey had 8,246 respondents. It included Calvert County, in addition to the TPB member jurisdictions.

The *State of the Commute Survey*, like the US Census, measures work trips only.

All data in the following tables comes from the 2019 *State of the Commute Survey* unless otherwise noted. Walking and bicycling were not calculated separately in the *State of the Commute Survey* for the subcategories of ethnicity, income, age, and state of residence due to sample size issues. All mode shares are for primary commute mode, 3+ days per week. Walk/bike mode share varies state of residence, number of vehicles in the household, ethnicity, and age.

Walk/Bike Mode Share

Walk mode in 2019 was 1.7%, and bike/scooter was 1.6%. Weekly commute trips made by biking/scooter/walking were evenly divided between the two modes (1.7% walk and 1.6% bike/scooter). Scooters accounted for only 0.1% of total commute trips.

Nearly one in four bike commuters used a rented bike, either a Capital Bikeshare bicycle (16%) or a dockless bike (7%) on some days.

Trip Satisfaction

Bicyclists and Pedestrians are the Happiest with their Commutes

92% of bike/walk commuters reported being satisfied with their commutes, the highest of any commuter mode. Drive alone commuters were the least happy. Only 45% of drive alone commuters reported being satisfied with their commutes, a steep decline from 57% in 2013. Drivers and carpoolers were also more likely to report that their commutes were getting worse. Bike/walk commuters typically have shorter commutes and are able to avoid traffic congestion.

Of commuters who had recently moved, 3% reported that the availability of protected bike lanes was a factor. Three percent also reported that access to a bikeshare station was important. Access to Metrorail ranked far higher, at 44%.

People who walked or biked listed the major benefits as "get exercise" (80%), "avoid stress" (32%), and "save money" (23%).

Bike/Walk by Demographic

Whites are more likely to Walk or Bike to Work

Five percent of bike/walk commuters were under the age of 35. Two percent were 55 or older. Younger people are also more likely to use bike share and e-scooter services.

Sex and income had little effect on bike/walk.

Bike/walk use was highest among white respondents, at 6%. Hispanics reported a 2% bike/walk mode share, and African-Americans 1%. Drive alone shares were similar for all three groups.

Motor Vehicles per Household

16% of People Without a Car Walk or Bike to Work

Vehicles per household is a strong predictor of mode share – the more cars per adult, the more driving. Non-work trips also shift sharply away from walking in households that have at least one car per adult.

Not having a car is also associated with more use of bike share, scooting, transit, and ride-hailing apps. 23% of people living in household with no car had used bike share, and 13% had used an e-scooter service. Having less than one car per adult in the household also had a positive effect on the use of these modes. Having a least one car per adult is predictive of more driving.

Geography

17% of DC residents used bike/walk to go to work, versus 1% for Maryland residents, and 2% for Virginia residents. 13% of residents of the urban core jurisdictions used bike/walk to get to work, and only 37% drove alone.

Distance and Time

16% of Commutes in the Region are less than 5 miles

Average commute distance was 17.1 miles. About one-third (34%) of respondents commuted fewer than 10 miles one-way, and 16% commuted less than five miles.

Bicyclists reported an average commutee distance of 4.2 miles, and pedestrians reported an average distance of one mile. Trip times were 24 and 15 minutes respectively. Average commute time for the region for all modes was 43 minutes.

Travel distances to alternative meeting points, such as transit stations and park and rides, are short, typically less than three miles.

The use of bikes for commuting is still well below its potential.

WALKING AND BICYCLING TO TRANSIT

Mode of Access

62% of Metrorail Passengers Walk to the Station

Walking is the dominant mode of access to transit. The census walk to work mode share does not include walk trips to transit, since a walk trip to transit is counted as a transit trip rather than as a walk trip. In areas with high transit ridership the census walk to work numbers significantly undercount the amount of walking to or from work.

In 2016 WMATA surveyed passengers at all 91 of its Metrorail stations. The primary purpose of the survey was to estimate the percentage of total ridership residing in each jurisdiction. Passengers *entering* each Metro station were queried throughout the entire day, so the "mode of access" number for any given Metro station includes both people on their way to work or some other destination, and those on their way home. "Mode of Access" is the mode people use to get to the station, not to leave it.

In 2016 62% of all Metrorail passengers walked to the station and 0.6% arrived by bicycle essentially the same as in 2012.

However, the AM peak results, which are the best measure of how people access the system (as opposed to any particular station), show higher auto mode and bus mode of access. Pedestrian mode of access for the AM peak is 40%, up from 37% in 2012 , and 33.3% in 2007. Bike access is 1%, the same as in 2012. Drive mode fell from 25.6% in 2012 to 21.5% in 2016.

WMATA is making significant progress increasing walk mode and decreasing drive mode of access to the system.

Distribution

Mixed Use Development near stations has increased Pedestrian Access to Metrorail

Mode of Access varies greatly by station, from Arlington Cemetery, Convention Center, with 97%+ access by foot, to New Carrollton, with 6% access by foot. The thirty-six stations with the greatest share of pedestrian access (as a percentage of total passengers accessing that station) are all located in the District of Columbia, Arlington, or Alexandria.[25]

Stations with a very high share of pedestrians tend to be major employment centers, with people walking from work to the station, rather than from home to the station. However more than half the top twenty Metro stations for pedestrian access are mixed-use areas with

[25] Appendix E: Origin Station Sorted by All Day Walk Mode of Access.

significant residential, retail, or entertainment, which in many cases didn't exist twenty years ago.

Figure 12: NOMA Station Area/TPB/Michael Farrell

The bicycle mode of access to Metrorail ranges from 4% at Medical Center, McLean, East Falls Church, Braddock Road, and West Hyattsvile to zero at 48 stations.[26] Stations with more bicycling tended to be located in the western portion of the region, have access to a major shared-use path, be near a major University, and/or be located in an area with a bicycle-friendly street grid. Stations with no bicycling are either in dense urban employment centers with no bicycle parking, or are located in the southeastern portion of the region.

OUTLOOK

[26] 2016 WMATA Rail Passenger Survey.

Rapid Growth in the Urban Core and Regional Activity Centers favors Walking and Bicycling

Walking and bicycling taken together are significant travel modes in the Washington region, especially for non-work trips, and for trips to transit. Walking is the larger mode, and is growing slowly. Cycling is less common, but is growing rapidly.

Exurban and outer suburban areas have developed in ways that often make utilitarian walking and bicycling difficult and dangerous, with long distances, lack of direct routes, heavy, fast automobile traffic, and incomplete facilities for walking or bicycling. They typically have low levels of walking and bicycling.

The story in the urban core is different. In the District of Columbia, Arlington, Alexandria, and portions of Montgomery County and Frederick County, walking and bicycling are growing rapidly.

Since 2010 the urban core jurisdictions have captured a larger share of the region's growth, and have expanded their share of the region's population, a trend which if it continues will help increase walking and bicycling.

It is likely that urban core and inner suburban communities will develop over the next thirty years in ways that will be conducive to walking and bicycling. Many inner suburban activity centers have already reached critical levels of traffic congestion, and regional projections call for rapid employment growth in these same areas.

From 2015 to 2045, 76 percent of job growth and 64 percent of household growth is expected to occur in Activity Centers.[27] Under "Complete Streets" policies most of this new development will be walkable and bikeable.

A prominent example is the ongoing transformation of Tysons Corner, a classic auto-oriented commercial center, into a walkable downtown built around Metrorail.

If growth occurs in ways that are consistent with the TPB's regional plans and forecasts, creating activity centers that mix jobs, housing and services in a walkable environment, we can expect rapid growth in walking and bicycling in the inner suburbs as well as in the core.

[27] https://www.mwcog.org/documents/2018/10/17/growth-trends-cooperative-forecasting-in-metropolitan-washington-cooperative-forecast-growth--development/

CHAPTER 3: PEDESTRIAN AND BICYCLE SAFETY

Pedestrian and bicycle fatalities and injuries are a serious problem in the Washington region. More than one quarter of all traffic fatalities in the region are pedestrian or cyclist. Every jurisdiction has a significant pedestrian safety problem. Pedestrian and bicyclist fatalities account for at least 7% of total traffic fatalities in every major jurisdiction.

While all areas and demographic groups are affected, some groups are more affected than others. Urban areas and inner suburban areas are more heavily affected than the outer suburbs, Hispanics and African-Americans more than Whites and Asians.

Adjusted for their high walk and bike mode shares, the urban core jurisdictions are the safest places to walk or bicycle.

This section will describe the scope of the pedestrian and bicycle safety problem, its distribution across the region by jurisdiction, a look at the factors associated with pedestrian crashes, and the legal rights and responsibilities of drivers, pedestrians, and bicyclists. It will also discuss the region's efforts to deal with the problem through the "Street Smart" pedestrian and bicycle safety campaign.

Pedestrian Fatalities in the United States

Pedestrian safety is a major problem nationally and in the metropolitan Washington region. Of the 36,408 traffic fatalities in the United States in 2019, 6,301, or 17%, were pedestrians.[28]

Pedestrian Fatalities are up 46% since 2010

Pedestrian fatalities are up 46% since 2010. All other traffic fatalities are up 5%. This is a reversal of a decades-long trend towards reduced traffic and pedestrian fatalities. The last time pedestrians accounted for 17% of traffic deaths was in 1982.

The United States is an outlier in this respect. From 2010 to 2018 per-capita fatality rates in the USA rose by 19% for pedestrians and 11% for cyclists. Northern European countries either saw no increase or continued to see reductions in pedestrian fatalities during this period.[29] Walking and bicycling is much more dangerous in the United States than in its peer industrialized countries, and the gap is only getting wider.

[28] https://www.ghsa.org/resources/Pedestrians21

[29] "The Growing Gap in Pedestrian and Cyclist Fatality rates between the United States and the United Kingdom, Germany, Denmark, and the Netherlands, 1990-2018". Ralph Buehler and John Pucher, *Transport Reviews, Volume 41, 2021.*

Within the United States pedestrian fatalities vary widely by State and region, with sunbelt cities rated the most dangerous for pedestrians, and Florida as the most dangerous state. Maryland is ranked the 18th most dangerous state for pedestrians.[30]

2020: Covid Spring

2020 was an unusual year. Despite fewer cars on the road in the first half of 2020, the number of pedestrian fatalities stayed flat. From January through June 2020 there were 2,957 pedestrian deaths, while in 2019, there were 2,951 for the same time period.[31]

Pedestrian Fatalities by Age and Ethnicity in the United States

Pedestrians over age 75 are at high risk of Death

American Indians, African-Americans, and people over the age of 65 are over-represented among pedestrian fatalities relative to their share of the population.[32] Asians are under-represented. Ethnic risk varies significantly by State, so jurisdictions should not rely solely on national numbers when planning safety programs.

People over the age of 75 are at high risk; with six percent of the U.S. population, but more than 12 percent of pedestrian fatalities.

Adjusted for exposure, pedestrians over the age of 65 have a very high risk of dying, over six times as high as children under age 16.[33] For pedestrians over age 75 the risk is even higher, about eight times the risk for children.

American Indians are also over-represented among bicyclist fatalities. Blacks, Hispanics and Whites have roughly comparable per capita bicycle fatality rates.

Asians had the second-lowest per capita bicyclist fatality rate, after native Hawaiians. This was the only category of traffic fatality in which Asians did not have the lowest per capita rate.

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[30] *Daangerous by Design 2021 Update*, Smart Growth America,, page 23. https://smartgrowthamerica.org/wp-content/uploads/2021/03/Dangerous-By-Design-2021-update.pdf

[31] Governors Highway Safety Association, Pedestrian Traffic Fatalities by State: 2020 Preliminary Data, published March 2021

[32] *An Analysis of Traffic Fatalities by Race and Ethnicity,* Governor's Highway Traffic Safety Association, June 2021. https://www.ghsa.org/resources/Analysis-of-Traffic-Fatalities-by-Race-and-Ethnicity21

[33] *Dangerous by Design 2014*, Smart Growth America, p. 13.

PEDESTRIAN AND BICYCLIST FATALITIES IN THE WASHINGTON MSA

Pedestrians and Bicyclists account for 30% of the region's Traffic Fatalities

The Washington Metropolitan Area was rated 81st out of the 100 largest metro areas for pedestrian danger. Washington is one of the safer Metro areas for pedestrians.

Despite a decrease in traffic on our region's roadways in 2020, pedestrian fatalities held steady relative to 2019, reflecting national trends. In 2020 there were 93 pedestrian and 5 bicyclist fatalities, compared to 92 pedestrian and 7 bicycle fatalities in 2019.[34]

In 2018 there were 94 pedestrian fatalities, and 7 bicyclist fatalities.

2020	Alexandria City	Arlington Co.	Fairfax City	Fairfax Co.	Falls Church City	Loudoun Co.	Manassas City	Manassas Park City	Prince William Co.	Charles Co.	Frederick Co.	Montgomery Co.	Prince George's Co.	DC	TOTAL
FATALITIES															
Pedestrian	2	2	0	15	0	1	0	0	5	4	2	16	36	10	**93**
Bicyclist	0	0	0	0	0	0	0	0	0	0	0	2	2	1	5
All traffic	7	4	1	37	0	12	1	0	18	26	24	47	111	36	324
CRASHES															
Pedestrian	51	77	5	130	6	41	12	3	50	X	X	X	X	626	x
Bicyclist	**9**	**33**	**4**	**52**	**6**	**27**	**9**	**0**	**14**	**X**	**X**	**X**	**X**	**360**	x

Table 7: Pedestrian and Bicyclist Fatalities

The region had a stable number of pedestrian fatalities and serious injuries through 2017, but the 2018-2020 fatality numbers are worse. Historically the combined pedestrian and bicyclist fatalities were roughly one quarter of the total traffic fatalities, but now they are at 30%.

While DC and Virginia pedestrian fatality rates have been roughly stable, in the Maryland Counties, especially Prince George's, fatalities are up sharply. The four Maryland Counties had 35 pedestrian fatalities in 2015, but 58 in 2020.

Pedestrian Fatalities by State and Jurisdiction in the DC Metro

[34] *Data compiled from DDOT, MDOT, and VHSO*

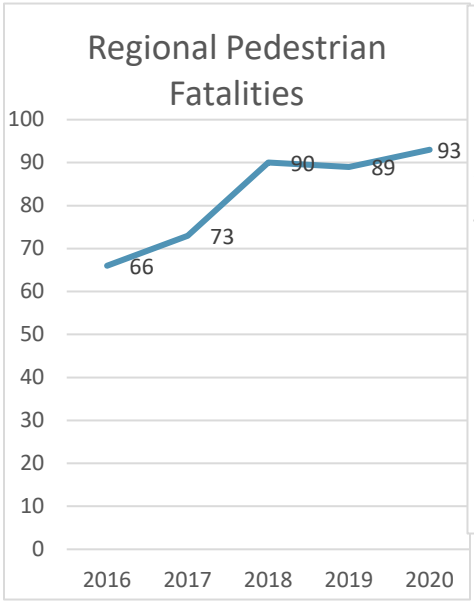

Figure 13: Regional Pedestrian Fatalities

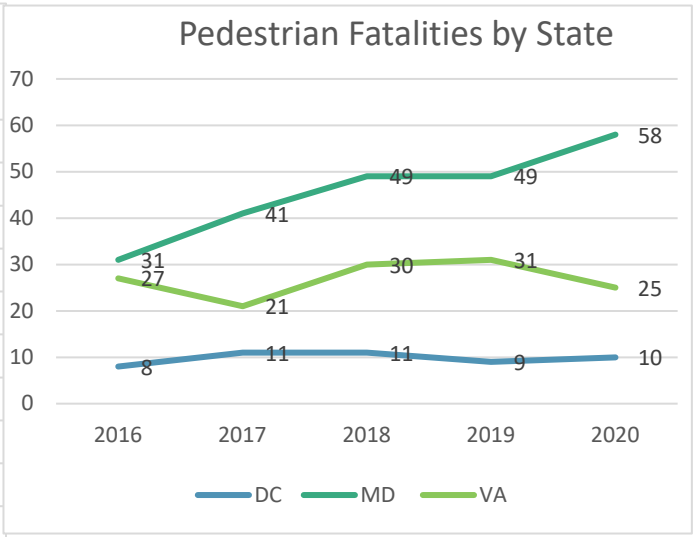

Figure 14: Pedestrian Fatalities by State

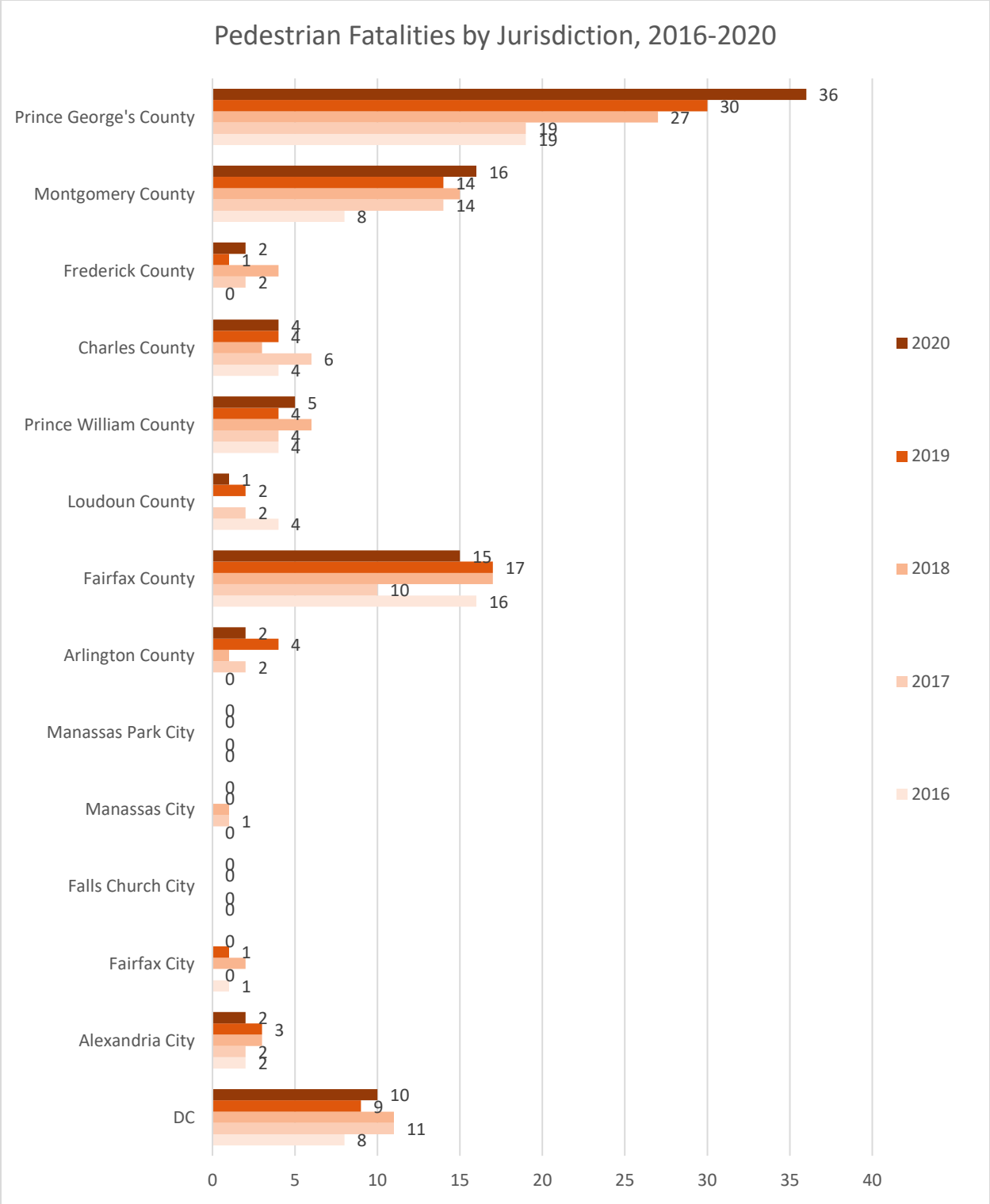

Figure 15: Pedestrian Fatalities by Jurisdiction

"Deep Dive" into Pedestrian Crashes in the Washington Region

TPB carried out a study of traffic safety in the Washington region in 2019. The study included detailed information on pedestrian crashes by time of day, month of the year, age, location, lighting conditions, severity, etc.

Detailed information from the safety study can be found in Appendix B.

Safety in Numbers

Pedestrians find Safety in Numbers

In the Washington region the jurisdictions with the most pedestrians are the safest places to walk. The urban core has good pedestrian facilities and low traffic speeds, and drivers expect to see pedestrians and bicyclists. The pedestrian crash rate tends to fall as the number of pedestrians at a location increases. Doubling the number of pedestrians at an intersection already crowded with pedestrians will usually result in little, if any, increase in pedestrian crashes.[35] Similar effects have been noted for cyclists, with cities having the highest rates of bicycling also having the lowest crash rate per bicycle trip.[36] High levels of walking and bicycling are associated, in advanced industrialized nations, with very low auto-involved crash rates.[37] The Netherlands has half the overall traffic fatality rate of the United States, despite a very high walk and bike mode share.

Experience of other nations shows that it is possible to reduce pedestrian and bicycle fatalities while increasing walking and bicycling. On the other hand, it is not possible to eliminate pedestrian fatalities by eliminating pedestrian facilities and discouraging walking; even in our least pedestrian-oriented jurisdictions, pedestrian fatalities account for at least 7% of total traffic fatalities. For the foreseeable future there will be people without cars, and there will always be some trips that will be made on foot.

Numbers alone do not guarantee safety, however. The region's most dangerous areas for walking have high-speed roads and poor pedestrian facilities, together with people who lack automobiles. Lower vehicle speeds in the urban core are a likely cause of the lower fatality rates there.

Differences in the pedestrian injury rates between the suburban jurisdictions are much smaller than differences in fatality rates.

The District of Columbia has seen rising bicycle crash rates as its rate of bicycling has increased, though the crash rate has risen more slowly than bicycling, indicating that riding is getting safer.

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[35] Raford, Noah. *Space Syntax: An Innovative Pedestrian Volume Modeling Tool for Pedestrian Safety*. Presented at the 2004 TRB Conference, January, 2004. (TRB2004-000977) p. 8.
[36] Denmark Ministry of Transport (1994) *Safety of Cyclists in Urban Areas: Danish Experiences*.

[37] Pucher, John. "Making Walking and Bicycling Safer: Lessons from Europe," *Transportation Quarterly,* Summer 2000.

Walking is a necessary part of human life and health, and it is essential to the mobility of those who cannot drive. Through "Complete Streets" and other policies the region is striving to make walking safer everywhere.

Legal Status of Bicyclists and Pedestrians

Bicyclists have the same Rights and Responsibilities as Motorists when Riding on the Road

State traffic codes allow bicyclists to travel on most roadways with the general rights and responsibilities of drivers of vehicles. Bicyclists must ride in the same direction as traffic, use lights after dark, and yield to pedestrians. Like operators of other slow-moving vehicles, cyclists--when traveling at less than the normal speed of other traffic--should generally ride as far to the right as safely practicable, except when preparing to turn left, passing, avoiding obstructions, mandatory turn lanes or unsafe pavement conditions, or when the travel lane is not wide enough to safely split with a motor vehicle. Cyclists may use the full travel lane if the lane is too narrow to allow them to ride to the right of motor vehicles safely. Cyclists may usually ride on roadway shoulders, paths and sidewalks, except where prohibited. Cyclists have the rights and duties of pedestrians when traveling on paths, sidewalks, and crosswalks, however, they must yield to pedestrians in those locations.

Unlike bicyclists, pedestrians should walk facing traffic if they must walk in the road. If sidewalks are available pedestrians are usually required to use them. Mid-block crossings are usually legal unless both ends of the block are signal-controlled. However, pedestrians crossing mid-block must yield to motorists if they are present. An intersection is a legal crossing for pedestrians, regardless of whether the crosswalk is marked. However, a pedestrian may not cross an intersection diagonally unless that movement is specifically permitted. Pedestrians must obey the walk signals.

Rules relating to bicycles can be found on the Washington Area Bicyclist Association web site at https://waba.org/resources/bikelaws. Laws for motorists, pedestrians and bicyclists are also listed on http://www.bestreetsmart.net/laws/.

PEDESTRIAN AND BICYCLIST EDUCATION AND ENFORCEMENT: THE "STREET SMART" CAMPAIGN

Pedestrian and bicycle safety efforts generally fall into three broad categories of actions, the three E's: Engineering, Education, and Enforcement. Engineering deals with the design of safer roads, streets, and pedestrian and bicycle facilities. Education includes both classroom-based training and behavioral modification campaigns. Enforcement consists of enforcement of the traffic laws with respect to pedestrians and bicyclists. The regional pedestrian and bicycle safety campaign, Street Smart, deals primarily with education through mass media.

Street Smart was created in 2002 by the region's governments in response to an ongoing regional pedestrian and bicycle safety problem. Since the region is a single media market, a unified regional campaign is the most cost-effective approach. The program is supported by

federal funds made available through state governments, from WMATA, and is administered by the National Capital Region Transportation Planning Board.

Figure 16: Street Smart Ad/TPB/Sherry Matthews Marketing

The Street Smart campaign is a twice-yearly, month-long blitz of radio, transit, gas station, and internet advertising, supported by public relations activities and by concurrent law enforcement. The goal of the campaign is to change driver, pedestrian, and bicyclist behavior in order to reduce deaths and injuries. Motorists are urged to "Slow Down and Watch for Pedestrian", bicyclists to "Obey Signs and Signals", pedestrians to "Use Crosswalks. Wait for the Walk Signal" and transit riders to "Don't Run for the Bus". All materials, including radio spots, are translated into Spanish. Since 2007 campaigns have been held twice per year, in the fall and in the spring. Campaign materials can be found on the web site, http://bestreetsmart.net.

Efforts to enforce pedestrian laws are also stepped up in conjunction with the "Street Smart" pedestrian and bicycle safety campaign. Law enforcement has helped reinforce the campaign message, just as it has been used effectively as part of anti-drunk driving and seatbelt advertising campaigns. Public awareness of these heightened enforcement activities has been a key aspect of this campaign. Research shows that fear of fines and legal consequences is more effective at changing behavior than fear of death or injury. Also the TV and press media often covers enforcement stings, increasing the public's perception

that they are likely to be ticketed for breaking the law. The Street Smart campaign sponsors annual seminars on best practices in pedestrian enforcement for law enforcement officers. Participating agencies report the number of warnings and citations issued.

EVALUATION

Our survey of area motorists and pedestrians usually shows that the public is hearing and remembering the Street Smart messages. Our current year on year awareness, from 2019 to 2020, is flat.

OUTLOOK

Pedestrian and bicycle safety has drawn increasing attention in the Washington region and at all levels of government. To build walkable communities, walking and bicycling need to be made safer. Improved occupant protection and vehicle design have saved the lives of many motorists, but we have not made comparable progress for people outside motor vehicles. In fact the situation, as discussed above, has gotten significantly worse over the last several years, both locally and nationally.

Figure 17: Press Event

Bicycling mode share has increased in the last decade, most notably in the District of Columbia, and that increase has been associated with increased numbers of injuries.

Enforcement has decreased due to Covid precautions, and due to competing demands on police resources. Data from Maryland also shows that traffic enforcement was in a long term decline years before Covid. Effectiveness of automated enforcement is limited to speeding and stop lights; it does not work on DUI. In the Washington region, many out of State motorists ignore speed camera tickets from the District. There is no effective means to collect, absent reciprocity agreements with the surrounding states.

There have been calls from advocates to further reduce the number of police traffic stops and pedestrian stops. In the current political climate traffic enforcement is unlike to recover to the levels of a decade ago anytime soon.

On the engineering side, the new federal transportation bill contains additional funding for transportation safety improvements.

The Street Smart campaign is yielding positive results, but it is meant to complement, not replace, local three “E” safety efforts. States, cities, and counties need to continue engineering and building safer streets, enforcing the traffic safety laws, and educating motorists, pedestrians and bicyclists. We know that the streets can be made safe for

pedestrians and bicyclists, because some of our jurisdictions have already done it. Agencies that make pedestrian safety a priority are getting positive results, or at least avoiding the recent increases in fatalities of all kinds that have affected most of the country.

CHAPTER 4: EXISTING FACILITIES FOR WALKING AND BICYCLING

This section will describe the types of walking and bicycling facilities currently available in the Washington region, including access to transit, bike sharing, and micromobility.

OVERVIEW

Figure 18: Informal foot path/TPB/Michael Farrell

The Washington region has excellent long-distance separated facilities for bicyclists and pedestrians, and an urban core and certain regional activity centers that have good pedestrian and bicycle facilities. The Washington region is at the forefront of innovation in bicycle facility design. On the other hand, many activity centers, not originally designed with pedestrians in mind, have grown dense enough to generate significant pedestrian traffic, and face challenges in terms of providing safe facilities and crossing locations for pedestrians and bicyclists. Other parts of the region have developed at low densities, with separated land uses and indirect routes, which increase pedestrian and bicycle travel time. Pedestrian and bicycle accommodations are not always provided.

Informal Foot-Paths Show where People Walk

Bicycle connections with transit are generally good, with bicycle parking, bus bicycle racks, and bikes permitted on Metrorail at most hours. Walking is the primary mode of access to transit. Conditions for pedestrian access are excellent at many rail stations, though at some rail stations, originally designed primarily with auto and transit access in mind, pedestrian access could be improved. Bus stops in places originally designed primarily for automobiles often have access and safety problems.

Pedestrians are found throughout the region, and pedestrian traffic is increasingly found in places that were not built for it. This section highlights some of the region's successes in providing for bicycling and walking. These successes can serve as examples of what the region needs to serve its pedestrians and bicyclists.

FACILITY TYPES

Shared-Use Paths

Figure 19: Mount Vernon Trail/TPB/Michael Farrell

The Washington region is renowned for the quality and extent of its major shared-use paths. Shared-use paths are typically located in their own right-of-way, such as a canal, railway, or stream valley, or in the right-of-way of a limited-access highway or parkway, such as the George Washington Memorial Parkway. Shared-use paths are eight to twelve feet in width. The region has approximately 200 miles of major shared-use paths, either paved or level packed gravel surface suitable for road bikes. Well-known trails include the W&OD and Mount Vernon Trails in Virginia, and the C&O Canal, Capital Crescent, and Rock Creek Trails connecting the District of Columbia and Maryland. Many of the region's shared-use paths go through heavily populated areas, connect major employment centers, and get significant commuter traffic. More information on trails in the Washington region can be found at http://www.commuterconnections.org/commuting-resources/bicycling-resources.

The region continues to build new trails along stream valleys and in conjunction with major highway projects, but the remaining inventory of disused rail lines, which often provide the best opportunities for shared-use paths, is fairly small.

Figure 20: Fairfax Parkway Side Path/Unknown

Side-Paths

Side-paths differ from shared-use paths in that they do not have their own right of way, but are closely adjacent to a non-limited access roadway and thus subject to more frequent conflict with driveways, side streets, and turning traffic. Side-paths differ from sidewalks in that they are at least eight feet wide (ten feet is the more recent standar) are typically made of asphalt, and are designed to meet the needs of bicyclists.

The Washington region has approximately 300 miles of side-paths, and there are plans to expand that mileage considerably.

Figure 21: Bike Lane/Pedbikeimages.org/Dan Burden

Side-paths meet the need for a separated pedestrian facility and provide separation from traffic that is valued by child and slow-moving cyclists, especially in places where the road has speeds of 40 mph or more and high traffic volumes, conditions often found on major suburban arterials. However, the AASHTO (American Association of State Highway and Transportation Officials) Guide for the Development of Bicycle Facilities offers a number of cautions regarding the use of side-paths or wide sidewalks for bicycles. Frequent driveways, especially with poor sightlines, are hazardous to bicyclists on side-paths. Side-paths remove bicyclists from the motorists' line of sight and allow travel against the flow of traffic, so they may increase the potential for conflicts with motor vehicles at intersections. Since the facility is shared with pedestrians, there is also a potential for cyclist-pedestrian crashes. Side-paths are most suitable where driveways and intersections are few and sight-lines are good. Intersection crossings should be designed carefully, with a protected signal phase providing the best level of protection.

Bicycle Lanes

Figure 22: Green Bike Lane

Bicycle lanes are marked lanes in the public right-of-way that are by law exclusively or preferentially for use by bicyclists. Bike lanes are one-way, with a bicycle symbol or arrow indicating the correct direction of travel. The minimum width is 5 feet for roadways with no curb or gutter; next to a curb or parked cars 6 feet, not including the gutter pan. Bike lanes are provided on both sides of the street, except for one-way streets, and allow travel only in the same direction as adjacent motor vehicle traffic. On-street bicycle lanes are generally much less expensive than separated paths. Bike lanes decrease wrong-way riding, define the road space that cyclists are expected to use, increase cyclists' comfort level, and call attention to the

presence of cyclists on the roadway. Bicycle lanes are not generally considered safe or adequate for pedestrians, though in rural areas without sidewalks the roadway shoulder serves as both a bicycle lane and as a pedestrian facility.

Bike lanes may be colored green for conspicuity.

Figure 23: Buffered Bike Lane/TPB/Michael Farrell

The number of bicycle lanes is growing rapidly. The District of Columbia currently has 97 miles of bicycle lanes, up from 19 miles in 2006, and three in 1995, Arlington County has 36 miles, up from three in 1995, and Montgomery County has 55 miles.[38] The regional mileage of bicycle lanes can be expected to expand significantly in the future as the core jurisdictions build out their planned networks, and suburban areas add more. Google maps shows existing bicycle paths, lanes, and on-road routes.

Buffered Bicycle Lanes

A buffered bicycle lane is a bicycle lane with a spatial buffer to increase the distance between the bicycle travel lane and the automobile travel lane or the parking zone. The buffer zone is usually marked with striped paint. Buffered bike lanes are sometimes used where there is higher than normal speeds, traffic volumes or truck volumes, or high-turnover parking. It allows additional space to be provided for bicyclists without creating something that looks like a travel lane to motorists. The example above is from Arlington.

Figure 24: Contraflow Bike Lane/TPB/Michael Farrell

[38] https://www.montgomerycountymd.gov/dot-dte/bikeways/index.html

Contraflow Bike Lanes

On some one-way streets, if there is a need, a bike lane may be marked against the flow of traffic. In this case, a one-way single lane street has been marked with a contraflow bike lane, while the travel lane has been given speed humps and shared lane markings (sharrows) to encourage sharing the travel lane. The street is one-way for cars, but two ways for bikes. Side streets in DC have a 15 mph speed limit, which on this street is observed thanks to traffic calming features such as speed humps and a mature tree canopy.

Protected Bike Lanes (Cycle Track)

A protected bike lane or cycle track is a bicycle-only facility that provides physical separation within the right of way from vehicle travel lanes. Protected lanes can be either one-way or two-way, on one or both sides of a street, and are separated from vehicles by wands, bollards, curbs/medians, parked cars, or a combination of these elements. Protected bike lanes can either incorporate bicycle-only signal phases at intersections (for 100% separation) or utilize "mixing zones" to merge bicycle and motor vehicle traffic.[39] The District of Columbia Department of Transportation has been an innovator in the development of protected bike lanes in the United States.

Figure 25: 1st Street NE Protected Lane/TPB/Michael Farrell

Protected bike lanes can pose a design due to the potential conflicts with turning vehicles, and lack of visibility of cyclists to turning vehicles when separated by parked cars. They have been used in numerous cities in Europe with mixed results.[40] Installation of protected bike lanes was found to result in an increase in collisions at intersections in Copenhagen, which more than offset a decrease in motorist-overtaking collisions and collisions with parked cars, for a net increase in the number of collisions of 9%. However, the same study showed that installing protected bike lanes increased bicycle (and moped) ridership 18 to 20 percent.[41] Installing bike lanes resulted in a 5 to 7% increase in ridership, and a 5% increase in crashes. For both protected bike lanes and bike

The 15th Street Cycle Track has increased Ridership by more than 200%

[39] Nactional Association of City Transportation Officials. http://www.nacto.org/cycletracks.html

[40] Jensen, Søren Underlien, Claus Rosenkilde and Niels Jensen. Road safety and perceived risk of cycle facilities in Copenhagen. *Available at http://www.ecf.com/files/2/12/16/070503_Cycle_Tracks_Copenhagen.pdf*

[41] *Cycle Tracks: Lessons Learned.* February 2009. Alta Planning and Design. Page 1.

lanes the number of riders can be expected to increase more than the number of crashes.

Riders perceive protected bike lanes as safer, and it should be noted that motorist-overtaking collisions, while relatively rare, account for a disproportionate number of serious and fatal injuries.

Protected Bike Lanes Attract Users of All Ages and Abilities

Following New York City, and Cambridge, MA, the District of Columbia is actively installing protected bike lane, towards an eventual planned network of 72 miles.

The first segment of protected bike lane in the District of Columbia was installed in 2009 on 15th Street NW. In terms of ridership, the 15th Street Protected bike lane, which has been in operation the longest, has been a success. After the two-way protected bike lane was installed, there was a 205 percent increase in bicycle volumes during the p.m. peak hour.[42]

More recent projects include one-way couplet of protected bike lanes on L Street and M Street NW (not yet complete) in downtown, and the 1st Street NE protected bike lane, which connects the Metropolitan Branch Trail to Union Station, and numerous others. DDOT has set a goal of adding 20 miles protected bike lane per year.

To help prevent turning conflicts, protected bike lanes may be equipped with separate signals for bicycles.

Figure 26: Union Station

Figure 27: 15th Street NW Protected Lane/TPB/Michael Farrell

[42] *Bicycle Facility Evaluation, Final Report.* April, 2012, p. 12.

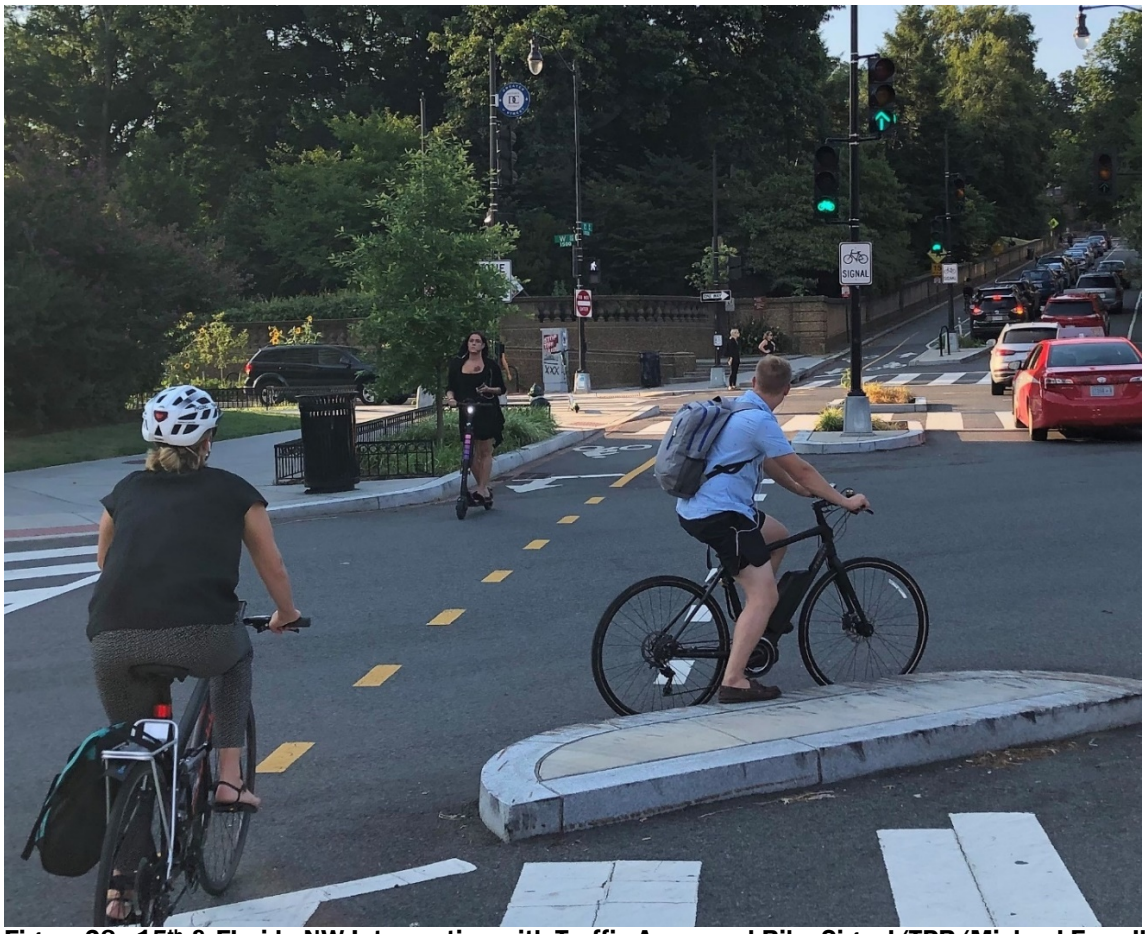

Figure 28: 15th & Florida NW Intersection with Traffic Arrow and Bike Signal/TPB/Michael Farrell

Dual Facilities

In recognition of the fact that fast-moving cyclists may be better off with an on-road facility, Montgomery County is planning many of its bicycle routes as dual facilities, with both an on-road bike lane and a side-path for pedestrians and slow bicyclists. VDOT's *Northern Virginia Bikeway and Regional Trail Study* recommends that both on- and off-road accommodation be provided.[43] Under the routine accommodation policy, VDOT is to provide adequate facilities for pedestrians and bicyclists even if not called for in the local plan.

Figure 29: Virginia Avenue SE/TPB/Michael Farrell

[43] *Northern Virginia Regional Bikeway and Trail Network Study.* November, 2003. Virginia Department of Transporation, Northern District Office. Page 19.

Where bicycle and pedestrian volume warrant it, and right of way permits, multi-use paths may be split into parallel pedestrian and bicycle paths. This separation allows cyclists and rollerbladers to maintain speed without risk to pedestrians. The Washington & Old Dominion Trail in Northern Virginia includes several sections with gravel pedestrian paths that parallel the paved shared-use path. The Virginia Avenue SE Shared Use path includes an adjacent sidewalk for pedestrians, as does the bike path along Maine Avenue SW next to the Wharf.

Figure 30: The Wharf, DC/TPB/Michael Farrell

Protected Intersection[44]

At protected intersections, the bikeway is set back from the parallel motor vehicle traffic. Unlike at conventional bike intersections, people biking are not forced to merge into mixed traffic. Instead, they are given a dedicated path through the intersection, and have the right of way over-turning motor vehicles. Protected intersections are a new treatment in the Washington region. The first fully protected intersection in the region is at Spring Street and Second Avenue in Silver Spring, MD.[45]

Figure 31: Partial Protected Intersection/TPB/Michael Farrell

[44] https://nacto.org/publication/dont-give-up-at-the-intersection/protected-intersections/

[45] https://ggwash.org/view/73335/the-east-coasts-first-protected-intersection-is-coming-to-silver-spring-heres-how-it-works

Tactical Urbanism

Tactical urbanism is the use of inexpensive materials, like flexposts, rather than permanent curbs. With flexposts, traffic calming features such as bulbouts can be installed at low cost. Using such materials allows a treatment to prove itself without spending a lot of money on new curbs and drainage. If it fails or creates unanticipated issues, it can easily be removed or modified. An effective treatment may be replaced with permanent materials once it wears out.

Figure 32: Flexpost Bulbouts/TPB/MIchael Farrell

Signed Bicycle Routes

The region has hundreds of miles of signed bicycle routes. Signed routes have the advantage of being inexpensive and informative for cyclists. A signed route has not necessarily had any bicycle-related improvements apart from signing. However, bicycle-friendly features such as paved shoulders, a wide curb lane, or low traffic volumes or speeds *may* be present. Bicycle route signs often include information on distances to destinations.

Figure 33: DC Bike Route Sign/TPB/Michael Farrell

Bicycle Boulevards/Neighborhood Greenways

Bicycle Boulevards, which Montgomery County calls "Neighborhood Greenways", are streets with low motorized traffic volumes and speeds, designed 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.[46]

Design elements may include:
• Traffic diverters at key intersections to reduce through motor vehicle traffic while permitting passage for through bicyclists.

[46] https://montgomeryplanning.org/wp-content/uploads/2018/05/Bicycle-Facility-Design-Toolkit-May-2018.pdf Page 43.

• At two-way, stop-controlled intersections, priority assignment that favors the neighborhood greenway, so bicyclists can ride with few interruptions.
• Neighborhood traffic circles and mini-roundabouts at minor intersections to slow traffic but allow bicyclists to maintain momentum.
• Traffic-calming to lower motor traffic speeds.
• Wayfinding signs to guide bicyclists along the route and to key destinations.

Long-Distance Bicycle Routes

Several notable long-distance routes promoted by national-level organizations pass through the Washington region. These include the East Coast Greenway, Bicycle Route 1, the Great American Rail-Trail and the American Discovery Trail.

Figure 34: East Coast Greenway in DC/East Coast Greenway Alliance

The East Coast Greenway Alliance is promoting what will eventually be a mostly off-road path connecting all the major cities of the East Coast. Currently 20% open for public use, it will span 2,600 miles from Calais, Maine to Key West, Florida. Bicycle Route 1 is part of a national network of low-traffic road routes promoted by the Adventure Cycling Association. The Great American Rail trail is a cross-country trail trail, currently 50% complete, that starts on the Mall and follows the C&O Towpath west, ending on the Olympic Peninsula of Washington State. The American Discovery Trail is a coast-to-coast, recreational, non-motorized trail, which follows the C&O Canal Towpath and the Anacostia River Tributary Trails. All organizations promoting long-distance routes rely on local agencies and organizations to realize their vision.

Exclusive Bus/Bicycle Lanes

Exclusive bus lanes are sometimes used on streets with heavy bus traffic. Bicycles are sometimes permitted to use those lanes. Bus/Bike Lanes can be found in the District of Columbia. Conflicts can occur due to differences in speed between buses and bicyclists.

Bike Boxes

Figure 35: Bike Box/TPB/Michael Farrell

A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.[47] They're often painted green, and are typically located between the stop bar and the crosswalk. Bike boxes are typically used at locations where bike volumes are high, and they are sometimes combined with an advanced phase for bicyclists, which allows the crowd of bicyclists to clear the intersection and make turns without conflicting with automobile traffic.

Bridges

The Woodrow Wilson Bridge trail, completed in 2009, allows cyclists to cross the Potomac River on the capital beltway at Alexandria. This multi-use path allows riders on the Mt. Vernon Trail to access the National Harborplace development in Prince George's County without going on street. Connections are also provided to an on-street network of bicycle routes in Prince George's County.

The 14th Street Bridge, the Memorial Bridge, the Theodore Roosevelt Bridge, the Key Bridge, and the Chain Bridge all have bicycle and pedestrian facilities. In the north, cyclists and

[47] https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/bike-boxes/

pedestrians may use the ferry at White's Ferry, which connects Montgomery County and Loudoun County. Cyclists may

Figure 36: Woodrow Wilson Bridge Trail/TPB/Michael Farrell

use the US 15 bridge at Point of Rocks and the MD 17 bridge at Brunswick to get across Frederick County and Loudoun County, though they have no separated facilities.

With the completion of the local traffic 11th Street Bridge in 2013, bicyclists and pedestrian now have a first rate multi-use path connection from Anacostia to the Navy Yard area of Southeast DC.

The District of Columbia is in the process of upgrading the remaining Anacostia River separated bicycle and pedestrian river crossings as these aging bridges are replaced and rebuilt.

The Long (rail) Bridge over the Potomac will eventually include a second span for two additional tracks, and a separate bike/ped bridge.

Figure 37: 11th Street Bridge/TPB/Michael Farrell

On-Line Bicycle and Pedestrian Routing

The last few years have seen a flowering of on-line resources that enable cyclists and pedestrians to locate facilities and plan their routes. Google Maps offers the most familiar interface.

BICYCLES AND PUBLIC TRANSIT

The region has made progress integrating bicycling and public transit, with secure bike parking available at most rail stations, bicycles permitted on Metrorail at all times (subject to crowding), and most of the buses in the region now equipped with bicycle racks. Specific agency policies and facilities are described below.

Metrorail Guidelines

- Bicycles are welcome on Metrorail during all hours; however,
- **Bikes are not allowed on crowded railcars.**
- May not block aisles or doors of the train.
- Senior citizens and people with disabilities always have priority.
- When boarding the train, use the doors at either end of the railcar - not the center doors.
- Bicycles may not be carried on escalators. Use elevators only.
- Do not ride bicycles in stations, on platforms or on trains.
- Metro reserves the right to disallow bicycles when there is crowding.
- For full Bike on Rail guidelines see: https://www.wmata.com/service/bikes/

Metrorail Bike Parking

Metro now has three secure Bike & Ride facilities at historically high bike-to-rail stations: College Park, which opened in 2012, East Falls Church, completed earlier this year, and Vienna. Together, Metro's Bike & Rides now offer secure parking for about 270 bikes, with space for expansion to meet future demand.

Metro currently owns and operates about 2,400 bicycle racks, and is replacing older racks with new inverted-U racks. Metro also offers 2400 bike lockers.

Figure 38: New Bike Racks/WMATA

Metrobus

- **All** Metrobuses have racks on the front that carry **up to** two bicycles. No permit is required. Instructions for how to use bus bike racks is available at http://www.wmata.com/getting_around/bike_ride/bikes_bus.cfm

- Metro has adopted guidelines for the design and placement of bus stops to improve their safety, comfort, accessibility, and efficiency.

Park and Ride

Of the 175 park and ride lots in the Washington DC-MD-VA Metropolitan Statistical Area, about 50 have bike lockers or racks. Commuter Connections lists information on Park and Ride lots.

Commuter Rail

Collapsible bicycles are permitted on all VRE trains. Full size bicycles will only be allowed on the last three northbound, the mid-day, and the last three southbound trains on each line.

MARC trains have bike racks on all trains. The racks will accommodate a full size bicycle. No bag or case is required.

PEDESTRIAN ACCESS TO TRANSIT

82% of Metrobus passengers walk to transit, and 62% of all Metrorail trips start with the passenger walking to the rail station. However, the a.m. peak walk mode of access, which is the best measure of how people originally get into the system, is 40%.[48]

The quality of pedestrian access to Metrorail and Metrobus is uneven. Many suburban rail stations were built with an emphasis on automobile and bus access. Bus stops are often placed in areas with no sidewalks or available crosswalks. Inventorying conditions and making recommendations for specific locations is beyond the scope of this plan, but there have been a number of efforts to do so, such as MTA's Access 2000 Study, COG/TPB's Walkable Communities Workshops, and efforts in Fairfax County and Montgomery County to improve bus stop safety.

WMATA has developed a set of *Guidelines for Station Site and Access Planning*, and WMATA has plans to upgrade pedestrian access at Metrorail stations and carry out station-area development. WMATA also finished an inventory of conditions at all its bus stops in 2008. The inventory included information on the presence of bus shelters, sidewalks, and location at a controlled intersection.[49] Suburban bus stops often lack a nearby controlled intersection for safe street crossing, and may also be missing sidewalks. A study on bicycle and pedestrian access to Metrorail provides details on pedestrian access.

TPB's Transit Access Focus Areas study detailed walksheds around selected high capacity transit stations, and Transit within Reach will fund projects to improve pedestrian access in those areas.

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[48] 2016 WMATA Rail Passenger Survey.

[49] *WMATA Bus Stop Inventory Project.* Kristin Haldeman, Presentation to TPB Access for All Subcommittee, November 2008.

BIKE PARKING

The District of Columbia, Arlington, Alexandria, and other jurisdictions provide bike racks on public property for short-term bicycle parking. They also require secure long-term bicycle parking to be provided as part of new development.

Figure 39: Ad hoc bike parking/TPB/Michael Farrell

Bike Corrals

As demand grows in congested areas, DC has added bike corrals, which are bike racks placed in the street, and protected by flexi-wands tire stops. Twelve bicycles can be parked in the space required to park one automobile. And because bicycles do not block motorists' sight lines, they can be placed near the intersection where parking is not permitted, result in no loss of car parking. New bike corrals include space for e-scooters.

Tire stops are necessary to prevent cars from backing into the racks at some locations.

Figure 40: Bike Corral/TPB/Michael Farrell

DC Bike Center

In response to demand for secure bicycle parking at Union Station, in 2009 the District of Columbia opened a Bike Station. The facility houses over 100 bicycles in 1,600 sq. ft. of free-standing ultra-modern glass and steel design. DDOT manages the Bike Center at Union Station, which has offered secure bike parking at Union Station since 2010.
The Bike Center is currently closed for repairs.

Figure 41: DC Bike Center/TPB/Michael Farrell

Figure 42: DC Bike Center/TPB/Michael Farrell

The DC Bike Center is a unique structure designed for a particular site. It required an unusual degree of architectural review due to its location on the National Mall. Far less expensive, modular self-service bike parking structures are available.

CAPITAL BIKESHARE

Capital Bikeshare has over 5000 bicycles and 600 stations

Bike sharing is self-service public bicycle rental. It is similar to a car-sharing system, such as ZipCar, where members pay a fee and have access to any available bike throughout the regional system. Unlike earlier "public bicycle" or "yellow bike" programs, which failed due to lack of means of preventing theft, modern bicycle sharing links rentals to a user's credit card, which can be charged if the bicycle is not returned. Bike sharing became common and popular first in Europe and then the United States, with programs in dozens of cities. Options for low-income access are also available.

Since it opened in 2010, the regional bike sharing program, Capital Bikeshare has grown to include 5000 bicycles at over 600+ stations in 7 jurisdictions: Washington, DC.; Arlington, VA; Alexandria, VA; Montgomery County, MD; Prince George's County, MD; Fairfax County, VA; and the City of Falls Church, VA.

Capital Bikeshare is one of the largest and most successful bike share systems in the United States. Its' solar-powered semi-mobile bike stations require no utility hook-up, which expedites installation. It operates year-round, with winter ridership a little more than one third the level of the warm weather months. It attracts many tourists as well as residents.

Capital Bikeshare now offers e-bikes at some stations. In 2019 e-bikes accounted for 10% of the fleet but 20% of the trips, which with the higher fees has made them a revenue driver.

Figure 43: Capital Bikeshare Station/TPB

MICROMOBILITY

"Shared micro-mobility" includes both station-based bikeshare such as Capital Bikeshare, and the various dockless e-scooter and e-bike rental services. There are major differences in the organization and operations of these systems.

Capital Bikeshare is a regional, publicly provided program, and its user base consists mostly of its long-term membership, along with some short-term passes, using a fob key or app QR code to unlock the bikes. Bikes must be returned to a station.

Dockless bikeshare is privately provided, and the bikes or e-scooters accessed with a Smart phone app. Trips are charged per minute. In the initial launch period the issue of where to park the bike was left mostly unresolved, with non-binding recommendations to users not to block the sidewalk.

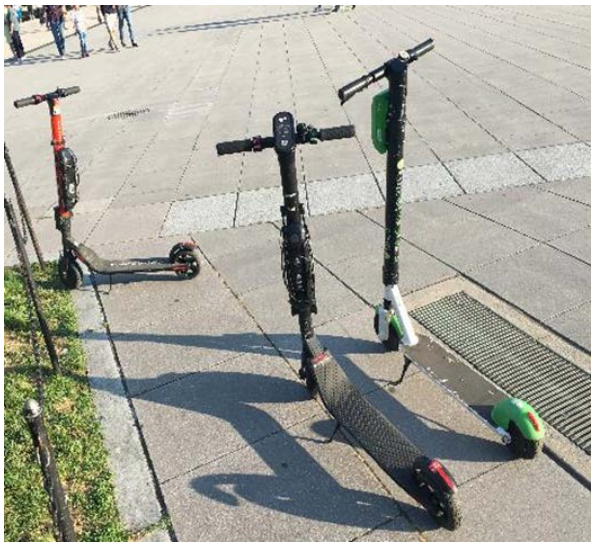


Figure 44: Shared E-scooters/TPB/Michael Farrell

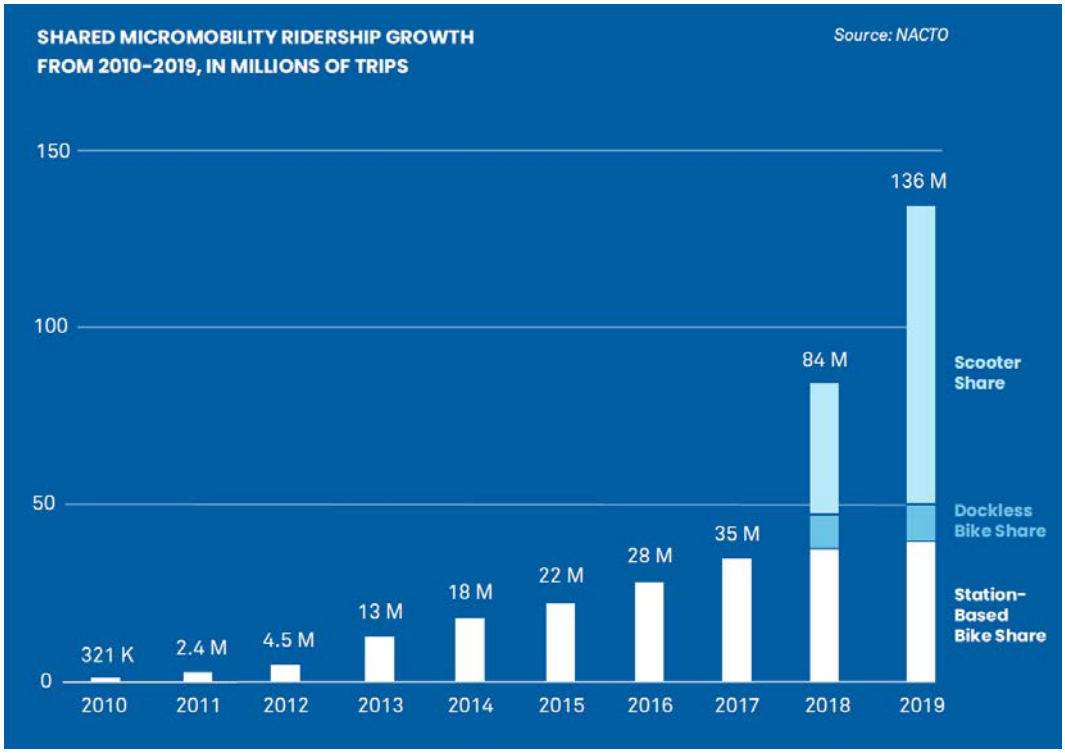


Figure 45: Shared Micromobility Ridership Growth

Each jurisdiction developed its own regulations for these services, although there was regular consultation between the jurisdictions, including workshops held every six months, while these regulations were being developed.

The initial roll-out in the Washington region happened in 2017-2018, with various companies putting dockless pedal bikes out on the street with little consultation with the affected jurisdictions.

THE E-SCOOTER BOOM[50]

In 2019, people took 40 million trips on station-based bike share systems (pedal & e-bikes). In 2019 the brand-new dockless systems dwarfed those numbers. There were 96 million trips on dockless e-bikes (10M trips) and scooters (86M trips). In 2019, 109 cities had dockless scooter programs, a 45 increase from 2018. E-scooter trips doubled compared to 2018.

Station-based bikeshare trip numbers increased by 10%, even as the number of systems fell by 4%.

THE WASHINGTON REGION

The DC area is a good market for shared micro-mobility. It has a young population, low car ownership. high smartphone use, high income and education, and congested traffic. Use is focused on the core of the Washington region, especially DC proper, along with Arlington, Alexandria, and portions of Montgomery County, which have active permit programs. The regional permitted fleet size is over 13,000, of which DC accounts for roughly half.

TRAINING

While Capital Bikeshare users typically know how to ride a bike, e-Scooter users often had never ridden an e-scooter. User training is mostly app-based, followed by trial and error. A third of incidents happen on the first use. Some agencies/operators sponsored training events, which are no longer possible. "Push" safety reminders from the app remind users of issues they may be facing based on time and location (i.e. don't drink and ride if they're out late).

REGULATION

E-scooters are privately provided at no cost to the jurisdiction. However, the jurisdiction cannot avoid administrative costs from a scooter invasion. It must respond to calls from the

[50] *"Shared Micromobility in the US: 2019"* NACTO. Page 4.

public regarding badly parked scooters, sidewalk riding, crashes, etc. E-scooters generate demand for more infrastructure, such as bike lanes and e-scooter parking areas.

Figure 46: Safety Tips/Arlington

A permit program can help alleviate some of these issues. Fees on operators can generate revenue to pay for the agency's expenses, while requirements on operators to share anonymized trip data can assist with planning.

Built-in speed governors can enforce speed, while geo-fencing can enforce slow zones and no-service zones. Other common restrictions on users include age restrictions, driver's license requirements, and late night use restrictions (though this last is controversial, due to late night need for transport when transit service may be spotty).

Inconsistent regulations governing where and how e-scooters e-bikes can be used complicates enforcement and compliance. For example, a parks department might ban e-scooters on its trails, while the DOT in the same jurisdiction allows them.

Maximum operating speed can be limited by the provider, while sidewalk riding and parking are harder to regulate. Agencies are providing parking corrals for e-scooter and bikes.

Arlington polled e-scooter riders and found that they strongly preferred riding in protected bike lanes and regular bike lanes over riding on the sidewalk. Only 9% of polled riders indicated that the sidewalk was their first choice.

Agencies have tracked crash rates and determined that safety was not a big enough problem to justify stopping the permit programs.

EQUITY

E-scooters are typically used in the densest neighborhoods, which have the highest volume of the short trips which micro-mobility can serve. In the Washington region that often means affluent areas with good Metro access and a well-developed network of bike lanes.

Studies show that In Baltimore the user base is significantly less white and less affluent than in Arlington or DC. Baltimore required that high-poverty close-in neighborhoods get minimum deployments of e-scooters. Hispanic residents of Baltimore were the most likely to use the e-scooters. Baltimore has more poor neighborhoods close to the center, and a lot of demand for short trips that are not well served by Baltimore's current transit system.

The experience of Baltimore shows that e-scooters can be a popular, well-used mode in poor communities.

PROSPECTS

Shared micro-mobility serves the TPB's regional planning goals. It provides a valued option for short trips. On average, the typical scooter user or bike share annual/monthly pass-holder rides for 11-12 minutes and 1-1.5 miles per trip.[51] Growth in dockless mobility has come mostly at the expense of ride-hailing, driving, and walking.

Dockless shared mobility is likely to continue for the immediate future. Safety, sidewalk riding, parking issues can be mitigated.

However, there are long-term threats to the industry. Companies are not profitable, and they are dependent on venture capital. Theft and vandalism have led to a low vehicle lifespan. Permit fees and other regulatory demands are increasing, and operators may need to raise their rates, which could reduce the appeal of shared systems.

OUTLOOK

Facilities for bicycling and walking in the Washington region are likely to improve significantly in the future. Federal, regional, state and local policies and transit agency initiatives all call for better and more complete facilities. Bicycle lanes, protected bike lanes, and dual facilities for pedestrians and bicyclists will become more common, and bike sharing will continue to expand in the urban core and beyond.

[51] Ibid, page 8.

CHAPTER 5: RECOMMENDED PRACTICES

The TPB Vision, Region Forward, and Regional Transportation Priorities plans call for a transportation system that allows convenient and safe bicycle and pedestrian access, with dynamic regional activity centers and an urban core that contain a mix of jobs, housing and services in a walkable environment. In order to achieve these goals, the Bicycle and Pedestrian Subcommittee has developed the following set of recommended best practices.

A. INCORPORATE BICYCLE AND PEDESTRIAN ELEMENTS IN ALL JURISDICTIONAL PLANNING AND DESIGN POLICIES. ADOPT "COMPLETE STREETS" POLICIES.

Include bicycling and walking, including provisions for persons with disabilities, in all stages of the transportation and land use planning process, from initial concept through implementation.

In particular, consistent with federal policy and the National Capital Region Transportation Planning Board's Complete Streets policy, every jurisdiction and agency should **adopt a Complete Streets policy** that includes elements that the TPB believes reflect current best practices.

Figure 4: Missing Sidewalk/TPB/Michael Farrell

Under Complete Streets policies pedestrians and bicyclists will be accommodated as part of all transportation projects, with a **few limited and well-defined exceptions**. A Complete Streets policy would typically not apply:

"A complete street safely and adequately accommodates motorized and non-motorized users, including pedestrians, bicyclists, motorists, freight vehicles, emergency vehicles, and transit riders of all ages and abilities, in a manner appropriate to the function and context of the facility."

- To a new transportation facility construction or modification project for which, as of the effective date of the adoption of the policy, at least 30 percent of the design phase is completed.

- To a transportation facility which prohibits, by law, use of the facility by specified users, in which case a greater effort should be made to accommodate those specified users elsewhere in the travel corridor.

- When the cost to the exempted project in achieving compliance with the applicable

complete streets policy would be excessively disproportionate (as per FHWA guidance), as compared to the need or probable use of a particular complete street.

- When the existing and planned population and employment densities or level of transit service around a particular roadway are so low that there is a documented absence of a need (as per FHWA guidance) to implement the applicable complete streets policy.

"VDOT will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking"

- To passenger and freight rail projects, which shall not be required to accommodate other motorized users in the railway right of way, although safe and adequate rail crossings for motorized and non-motorized users should be provided.

- To transportation projects which do not provide for direct use by the public, such as maintenance facilities, drainage and stormwater management facilities, education and training, transportation security projects, beautification, and equipment purchase or rehabilitation.

Agencies should carry out periodic **audits to monitor compliance** with a Complete Streets policy once it is adopted.

An effective complete streets policy is critical, since retrofitting pedestrian and bicycle accommodations is far more expensive than designing them in from the beginning. Policies which urge agencies to "consider" or "encourage" the provision of pedestrian and bicycle facilities often do not provide clear guidance as to when pedestrian or bicycle facilities should or should not be provided. Absent a clear mandate, pedestrian and bicycle facilities tend to be omitted.

It's cheaper to do it right the first time.

In addition, agencies should:

1. **Take into account likely future demand** for bicycling and walking facilities in planning transportation projects; do not adopt designs that would preclude future improvements.

2. **Encourage public participation** by bicyclists, pedestrians the disabled, and other community groups in the planning process.

3. Ensure **adequate funding** for bicycle and pedestrian transportation staff and facilities, including land acquisition, design, construction, and proper maintenance.

4. **Integrate bicycling and walking** into new development, including new **schools**.

5. Require **land developers** to **finance and construct sidewalks**, shared-use paths, and bicycle parking facilities within their developments.

6. Require land developers to design developments in a way that facilitates internal and external bicycle and pedestrian access. New development should feature a **dense network of interconnected streets** to minimize trip distance and offer many low-speed, low-traffic routes. Superblock and cul-de-sac development patterns should be discouraged, and transit-oriented development should be encouraged. Use the Virginia Department of Transportation's Secondary Street Acceptance Requirements as a model.[52]

Students who walk to school behave and perform better

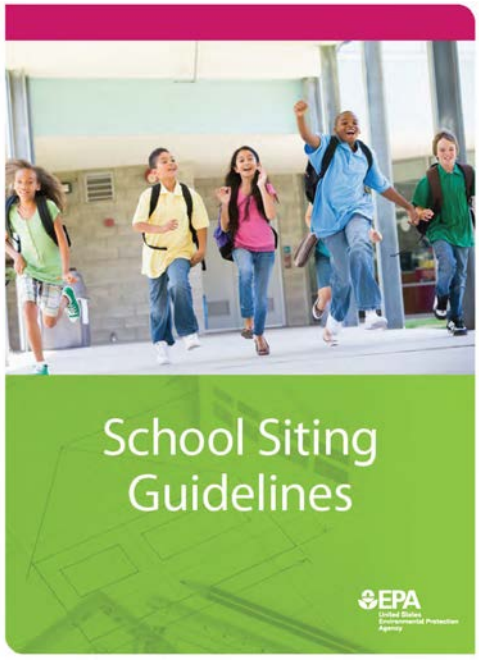


Figure 48: EPA School Siting Design Guide

7. Locate new schools in walkable communities. Use the EPA school siting guidelines.[53] For existing schools, improve pedestrian and bicycle facilities whenever a school is renovated or the streets surrounding a school are repaved or reconstructed.

8. Design, construct, operate, and maintain sidewalks, shared-use paths, street crossings (including over- and undercrossings), pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways so that all pedestrians, including **people with disabilities, can travel safely and independently**, in all seasons. Maintenance of pedestrian and bicycle facilities should include snow and ice removal.

B. IMPROVE INTER-JURISDICTIONAL COORDINATION TO DEVELOP A CONTINUOUS BICYCLE AND PEDESTRIAN TRANSPORTATION SYSTEM THROUGHOUT THE WASHINGTON METROPOLITAN AREA. TO THAT END, AGENCIES SHOULD:

1. Identify networks of existing bicycle routes (both on-street and off-street) in the urban core, suburbs, developing fringe, as well as connecting long distance inter-city routes. Ensure that these routes are included in land use and transportation plans, and not eliminated as development occurs.

[52] http://www.virginiadot.org/info/secondary_street_acceptance_requirements.asp

[53] http://www.epa.gov/schools/guidelinestools/siting/

2. Identify shared-use path corridors before they are developed, and preserve opportunities for development as shared-use paths.

3. Identify existing physical barriers to bicycling (such as rivers and streams, bridges, railroad tracks, highway crossings, and limited access highways with no crossing route) and identify solutions to overcome them.

4. Implement uniform wayfinding and/or designation for inter-jurisdictional routes that will provide easily understood instructions and information.

5. Convene and participate in a regional **working group** consisting of state and regional representatives to identify regional and long distance travel corridors for bicyclists, develop common guide signage guidelines, and develop of recommended bikeway alignments within travel corridors.

6. Identify **low-stress streets** for bicyclists and pedestrians in the street network, and identify ways to connect them to each other.[54]

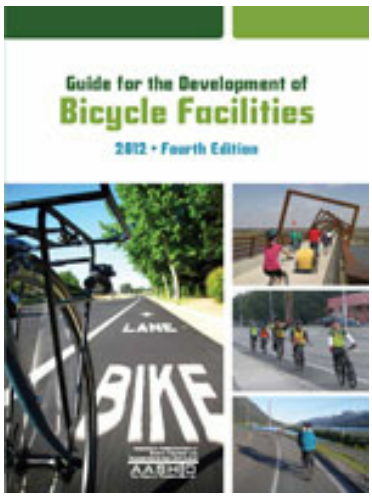


Figure 5: AASHTO Guide forthe Development of Bicycle Facilities

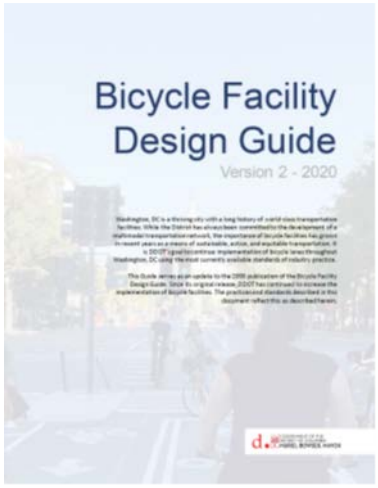


Figure 6: DC Bicycle Facility Design Guide

B. DEVELOP AND ADHERE TO CONSISTENT BICYCLE AND PEDESTRIAN FACILITY DESIGN AND CONSTRUCTION STANDARDS IN EACH JURISDICTION:

1. Assure adequate planning, construction and maintenance standards for comfortable and safe bicycling on both on-street routes and off-street paths, as well comfortable and safe walking on paths and sidewalks.

- Adopt, as minimum standards for privately and publicly built facilities, the AASHTO *Guide for the Development of Bicycle Facilities*, AASHTO's *A Policy on Geometric Design of Highways and Streets,* and the AASHTO *Guide for the Planning, Design and Operation of Pedestrian Facilities,* the *ADA Accessibility Guidelines* from the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), and the *Manual on Uniform Traffic Control Devices (MUTCD)* from the Federal Highway Administration.

- Establish and maintain **minimum design and maintenance standard**s for each type of facility.

- In accordance with federal guidance, **go beyond the minimum requirements where necessary** to provide safe and comfortable accommodation for bicyclists and

[54] https://montgomeryplanning.org/awards/stress-map-award/

pedestrians. Agencies such as the District of Columbia Department of Transportation have developed their own design manuals to meet their specific needs, and which may incorporate experimental measures which are not found in the current AASHTO bicycle facility design guide. The National Association of City Transportation Officials (NACTO), an alliance of city transportation departments, including the District Department of Transportation, has developed guides for bikeways and for urban areas. The NACTO guides provide designs and treatments not currently found in the AASHTO guides.

- For dense urban centers with low-traffic speeds and relatively high levels of bicycling and walking, use the NACTO *Urban Street Design Guide* and *Urban Bikeway Design Guide* where appropriate. FHWA has endorsed the "appropriate" use of the *Urban Bikeway Design Guide* to help agencies fulfill the above-mentioned 2010 federal guidance. FHWA notes that most of the treatments in the NACTO guide are allowed or not precluded by the MUTCD. Non-compliant traffic control devices can still be used as pilot projects, under the MUTCD experimentation process. As a supplement to the Bikeway Design Guide, NACTO's *Designing for All Ages & Abilities* guide provides guidance for selecting bikeways in various urban street settings.

Figure 7: NACTO Urban Street Design Guide

- **Provide bicycle and pedestrian facility design and construction standards for various contexts.** Communities in low-density suburban and rural environments face different barriers to safe walking and bicycling than those in urban cores and require different design solutions to support safe bicycling and walking.

- Incorporate guidance from FHWA's Bikeway Selection Guide, which provides a framework for selecting safe bikeways in various roadway contexts, including those found in suburban and rural environments. The guide suggests the safest bicycle facilities based on a roadway's traffic volume and speed. In general, the higher the roadway traffic volume and vehicular speed, the greater the separation of the facility from the roadway.

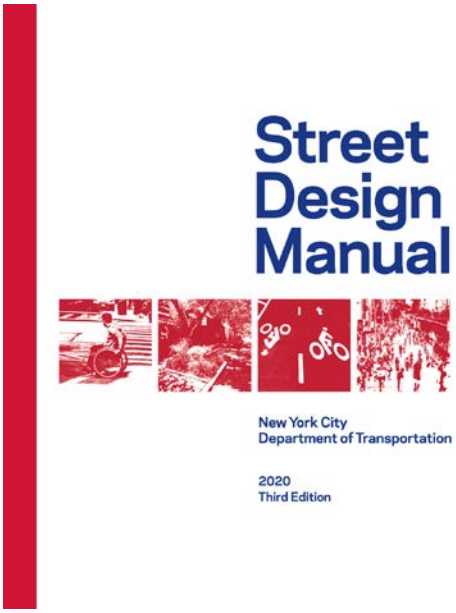
- The US Department of Housing and Urban Development (HUD)'s Creating Walkable and Bikeable Communities features street and bicycle facility design guidelines for rural, suburban, and urban settings. The guide provides near-term actions as well as long-term recommendations, such as retrofitting community layouts.

1. Improve Access for Persons with Disabilities to Pedestrian Facilities[55]

The Transportation Planning Board's Access for All Advisory Committee has identified the following recommended best practices for improving access for persons with disabilities to pedestrian facilities. More detailed recommendations can be found in the *Accessibility Guidelines* as noted above. With the exception of hand-rails on steep sidewalks, all of the following practices are legally required under the ADA for all new facilities and all reconstructed facilities:

- Sidewalks should have curb ramps. Ramps should be well-maintained, well-placed, and not too steep in order to permit their use by persons in wheelchairs.56
- The height of wheelchair users should be considered when placing shrubs or other objects where they might block them from the view of motorists.
- Objects such as security barriers, fences, fire hydrants, telephone poles, parking meters, newspaper boxes, signal control boxes, and other street furniture should be placed in locations where they will not block curb ramps.
- The placement of crosswalk buttons must take into consideration the needs of people with disabilities.
- Audible pedestrian signals make communities safer for all pedestrians, including seniors and children as well as people with visual impairments.
- Sidewalks with steep slopes are difficult for people with disabilities to navigate, especially for people who use manual wheelchairs or people who have trouble walking. Hand rails could help mitigate these difficulties.

C. MINIMIZE ROADWAY WIDTH, CURB RADII & CROSSING DISTANCE.[57]



To minimize pedestrian crossing distances and reduce impermeable, heat–absorbing asphalt coverage, the paved roadway of all streets should be designed to be the minimum width — and have the minimum number of lanes — that safely and cost–effectively allow for the desired operations of motor vehicles, buses, and bicyclists. Excess width should be reallocated to provide walking, transit, and bicycling facilities, public open space, green cover, and/or stormwater source control measures. If financial limitations preclude final implementation of street retrofits (e.g., curbing, streetscaping, etc.), the reallocation of space should still proceed with temporary or least costly approaches such as restriping.

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[55] "Lessons Learned" fact sheet for Disability Awareness Day. National Capital Region Transportation Planning Board Access for All Committee, October 20, 2004.

[56] Wheelchair ramp photo: COG/TPB, Access for All Committee

[57] New York City Department of Transportation, *Street Design Manual,* 2009. Page 46.

To further reduce pedestrian crossing distances and slow turning vehicles, all roadway corners should be designed with the smallest possible radius that still accommodates the intended vehicle and emergency vehicles.

All Metrobuses have been equipped with racks to carry up to two bikes per bus

D. SET TARGET VEHICLE SPEEDS APPROPRIATE TO SURROUNDING LAND USE.

- Urban streets should function as public spaces for people as well as arteries for traffic and transportation. The best street design adds to the value of businesses, offices, and schools located along the roadway.[58] Lower speeds are often needed to enable a street to serve as a comfortable place to gather, shop, work, or live.

- Streets should be designed with target speeds and speed limits appropriate to their surrounding uses and desired role in the vehicular network. Slower target speeds and speed limits should be considered on local streets, residential streets, alleys; on streets adjacent to schools, senior or disabled pedestrian trip generators; waterfronts, parks, rail stations, and other significant pedestrian destinations.

- Traffic calming features may be designed in from the beginning, or retrofitted where needed, to bring traffic speeds down to the desired level.[59]

E. IMPROVE BICYCLE AND PEDESTRIAN CIRCULATION WITHIN AND BETWEEN REGIONAL ACTIVITY CENTERS AND THE URBAN CORE.

- Improve sidewalks, bikeways, intersections, signage and links to transit for bicyclists and pedestrians in activity centers

- Improve access to and between regional activity centers.

- Provide access to activity centers from surrounding neighborhoods.

- Provide facilities to connect nearby activity centers

Figure 9: Bike Lockers and Racks at NOMA Metro Station/TPB/Michael Farrell

F. INTEGRATE BICYCLING AND WALKING INTO THE PUBLIC TRANSPORTATION SYSTEM.[60]

- Make it easier and safer to walk and bike to bus stop and rail stations.

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[58] NACTO, *Urban Street Design Guide,* 2013.

[59] Ibid, pp. 76-91.

[60] Photo of NY Avenue Metro Bike Lockers: COG/TPB, Michael Farrell

- Build sidewalks and pedestrian crosswalks and/or overpasses that connect transit stops to nearby neighborhoods, commercial areas, and existing pedestrian infrastructure.

- Site and/or space bus stops along bus routes so that they are accessible within a comfortable walking distance for passengers (typically ¼ to ½ mile).

- Improve lighting, signage, and wayfinding around transit stations.

Figure 10: Bike on Bus/WABA/Eric Gilliland

- Improve bicycle parking at Metro, commuter rail stations, and park and ride lots. Replace broken and obsolete bicycle racks with current models. Add more Bike & Ride secure bicycle parking facilities at Metrorail stations.

- Improve customers' ability to make the "last mile" of their trip by locating bike sharing or increasing bike parking options at rail stations, and eliminate the need to bring a bike on the train during peak periods

- Provide bicycle racks on all transit buses.[61]

- Provide for more efficient accommodation of bicycles on future rail services, including commuter rail, Metro, and light rail, in the Washington region. Vertical storage racks such as those on Maryland's MARC trains, and on the MAX light rail line in Portland, OR are good examples.

G. PROVIDE ADEQUATE BICYCLE SUPPORT FACILITIES.

- Enact zoning laws to require bicycle parking and related facilities as part of all new construction or major renovation, including office, retail, and housing developments.

- Construct bicycle parking facilities in well-traveled and lighted areas. Facilities should be covered and secure

[61] Photo of Bike on Bus by WABA/Eric Gilliland

- Require placement of bicycle parking facilities in convenient locations; short-term parking should be as close as possible to building entrances; long term parking facilities should be located in secure areas.

- Ensure the provision of showers and changing facilities in all new or renovated commercial developments.

- Provide bicycle parking on public property. Jurisdictions should install bicycle parking in public spaces where there is demand, such as public libraries, parks, and sidewalks near storefront retail.62

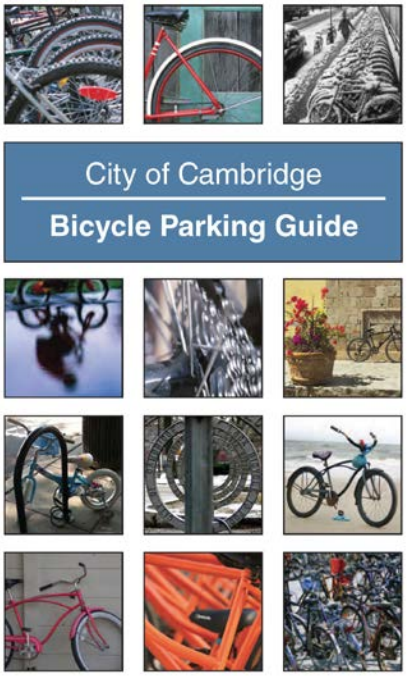

Figure 45: City of Cambridge Bike Parking Guide

H. EXPAND THE REGIONAL BIKE SHARING PROGRAM

Bike sharing is self-service public bicycle rental. It is similar to a car-sharing system, such as ZipCar, where members pay a fee and have access to any available bike throughout the regional system. Unlike earlier "public bicycle" or "yellow bike" programs, which failed due to lack of means of preventing theft, modern bicycle sharing links rentals to a user's credit card, which can be charged if the bicycle is not returned. Bike sharing took hold first in Europe, but has now become common in North America, with programs in dozens of cities.

The bike sharing system for the Washington region is Capital Bikeshare, currently one of the largest and most successful North American bike share systems. Their solar-powered docking stations have proven easier and faster to install than stations that require a utility hook-up.

The Institute for Transport Development Policy publishes a detailed bike share planning guide.

I. REALIZE THE TRANSPORTATION BENEFITS OF MICROMOBILITY

- Bikeshare is part of a rapidly expanding category of transportation called micromobility. While there is some disagreement about what constitutes micromobility, micromobility generally refers to travel across short distances using small,

lightweight devices that operate at low speeds (typically 15 mph) such as e-scooters, hoverboards, and e-bikes.63 Users access micromobility systems through a smartphone application that locates a device, tracks the start and end of a trip, and collects payment. Micromobility has recently increased in popularity. As of August 2020, the United States had 71 docked bikeshare systems, 50 dockless bikeshare systems, and 145 e-scooter systems.64

- Micromobility is changing the transportation landscape in communities where it is deployed. It enhances the efficiency of a transportation network by meeting travel needs at the individual trip level. It also supports TDM goals by reducing automobile trips. Moreover, the flexibility of micromobility systems enables service to reach locations currently lacking transportation alternatives. While micromobility is associated with positive outcomes, it also presents jurisdictions with questions about operator regulation, public safety, and curb space management. While cities have approached micromobility differently, some common practices have emerged, such as:

- Regulate shared micromobility vendors through permits or a pilot/demonstration program. Permits and pilots tie system operations to performance standards set by the municipality. NACTO's Shared Mobility Guidelines outlines recommended terms and conditions for city permits or contracts with shared mobility providers.

- Provide infrastructure so that users can safely ride devices. NACTO recommends that cities prioritize construction of bikeways and discuss what devices can operate in bikeways.

- Designate parking zones for shared micromobility devices in high volume areas. Seattle, Atlanta, and Washington, D.C., have "corrals" to limit devices parked in the public right-of-way.

- Develop micromobility laws to promote safe user behavior. Cities have passed laws that regulate where micromobility users can ride, operation speeds, device parking locations, adherence to traffic laws, riding while under the influence of drugs or alcohol, user age requirements, and helmet requirements among other topics. Some laws penalize users with fines for violations.

- To help enforce the rules, jurisdictions can request that vendors limit the function of devices, such as geofencing areas where devices are prohibited.

- Offer frequent education and training through different mediums on the safe use of devices.

- Obtain data from micromobility vendors to evaluate programs and inform planning.

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63 PBIC Brief does not include human-powered devices in its definition of micromobility (https://www.pedbikeinfo.org/cms/downloads/PBIC_Brief_MicromobilityTypology.pdf) while ITDP does (https://www.itdp.org/multimedia/defining-micromobility/).

64 Available from BTS: https://data.bts.gov/stories/s/fwcs-jprj

- Coordinate with engineers, planners, and designers to determine how street design standards should be updated to accommodate low-speed devices.

I. DEVELOP PEDESTRIAN AND BICYCLE SAFETY EDUCATION AND ENFORCEMENT PROGRAMS IN ALL JURISDICTIONS.

- Promote pedestrian and bicycle safety education programs for children, beginning at the early ages.
- Establish and maintain pedestrian and bicycle safety programs at the elementary school level, including classroom and on-bicycle instruction.
- Develop and distribute pedestrian and bicycle safety information materials designed to teach beginning cyclists and young pedestrians.
- Emphasize the use of bicycle helmets as a means of injury reduction, lights after dark, reflectors, and reflective clothing for pedestrians.
- Improve cycling skills and pedestrian safety habits of adults and young adults.

Volunteer Patrols can help with Trail Security

- Produce and distribute information on bicycle usage and safety.
- Emphasize the use of helmets for rider protection, lights after dark, reflectors, and reflective clothing for pedestrians.
- Increase motorist awareness and accommodation of bicyclists and pedestrians, and bicyclist and pedestrian awareness and accommodation of motorists.
- Include bicycle and pedestrian information in automobile drivers' training classes, driver's manuals, and license exams, and through the media.
- Coordinate public media campaigns with law enforcement
- Encourage jurisdictional uniformity of traffic laws relating to bicycling and walking. Encourage conformity with such regulations as the Uniform Vehicle Code.
- Encourage consistent bicycle law enforcement to assure safe bicycling and walking.

The regional "Street Smart" Pedestrian and Bicycle Safety Campaign urges motorists and pedestrians to "Slow Down" and "Use Crosswalks"

- Emphasize the enforcement of traffic laws dealing with offenses known to cause crashes between bicycles and motor vehicles, such as wrong way bicycling, and ignoring stop signs or stop lights.

- Emphasize enforcement of traffic laws dealing with offenses known to cause crashes between pedestrians and motor vehicles, such as motorists failing to yield to pedestrians, and pedestrians disobeying "Don't walk" signals.

- Improve bicycle and pedestrian accident reporting and analysis procedures at the state and regional levels, to provide jurisdictions with a better understanding of accident causes and countermeasures.

- Provide significant law enforcement presence along regional off-road trail networks and encourage inter-jurisdictional cooperation and coordination to provide for the safety and security of all pedestrians and bicyclists.

J. ENCOURAGE WALKING AND BICYCLING

- Each jurisdiction and agency should encourage walking and bicycling, and promote the perception of both as legitimate forms of travel, in the way most appropriate to that organization. Examples include:

- Have walk and bike-friendly policies for employees. Let employees know that walking and bicycling is both permitted and encouraged. Organize/support/participate in events such as Bike to Work Day, Car-Free Day, etc.

- Carry out pedestrian and cyclist education programs that also encourage walking and bicycling, such as Safe Routes to School. Designate a Safe Routes to School coordinator for every community.

- Provide high-quality information to the public on the benefits of walking and bicycling, and where and how it can be done in your community, through programs such as WalkArlington and BikeArlington. Partner with employers, transportation demand managers, and advocacy groups.

- As part of a comprehensive transportation demand management program, provide financial incentives for employees to walk and bicycle.

- For States and Metro regions, consider investing in paid media campaigns.

K. EACH JURISDICTION SHOULD DEVELOP A HIGH VISIBILITY BICYCLE OR PEDESTRIAN PROJECT TO DEMONSTRATE THE EFFECTIVENESS OF BICYCLING AND WALKING AS A SHORT DISTANCE TRANSPORTATION MODE.

- Ensure that projects are feasibly implemented, and supported by the community and the government agencies responsible for implementation.

- Undertake extensive publicity and promotion for each facility or service included in the project.

- Conduct an extensive analysis of the effectiveness of each project following the demonstration period.

Figure 47: Lawyers Road Before Road Diet/VDOT

Figure 48: Lawyers Road After Road Diet/VDOT

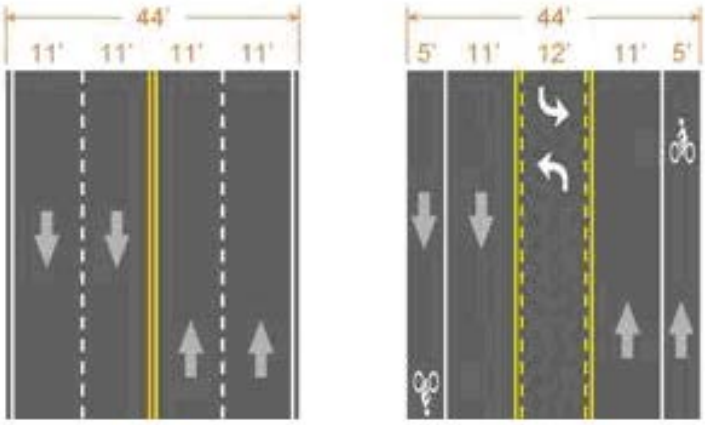

Figure 49: Road Diet/VDOT

VDOT completed a model Road Diet project in Reston, VA, shrinking Lawyer's Road from four lanes to two plus a turn lane and bike lanes

L. EACH AGENCY SHOULD DESIGNATE A BICYCLE COORDINATOR AND A PEDESTRIAN COORDINATOR TO OVERSEE BICYCLE AND PEDESTRIAN PROGRAMS.

- Experience has shown that without a designated staff person or persons responsible over for overseeing their implementation, pedestrian and bicycle programs and policies are not implemented effectively. Staffing levels should be proportional to the size of the agency and volume of work.

- All TPB member jurisdictions with active pedestrian and bicycle programs designate a lead staff person or coordinator.

M. INTEGRATE EQUITY IN BICYCLE AND PEDESTRIAN PLANNING.

- Transportation planning in the US has traditionally been driven by efficiency or cost. Since the 1990s, however, transportation professionals have increasingly recognized equity as a necessary consideration, among other factors. By focusing on equity, transportation professionals allocate transportation investments based on need, allowing services and infrastructure improvements to flow to the most under-resourced populations. In July 2020, the TPB Board of Directors affirmed equity as a fundamental value in the Metropolitan region. This commitment is consistent with federal policy.

- Under-resourced populations may rely on alternative modes like walking and biking more than other segments of the population. Households in poverty have lower car ownership rates, and higher biking and walking rates compared to higher-income households.65 Planning professionals can address the needs of under-resourced communities through several strategies, including:

- Hire agency staff of all levels who understand the community the agency serves.

- Train agency staff to effectively communicate with constituents about transportation equity issues, which can often be complex.

- Evaluate the metrics used to prioritize infrastructure projects to avoid unintentional bias in the allocation of resources. The Victoria Transport Policy Institute's Evaluating Transportation Equity guide discusses the various equity impacts resulting from transportation planning, and how planning assumptions and metrics affect outcomes. FHWA's Performance Based Planning and Programming Guidebook may offer additional guidance for incorporating equity and environmental justice into planning processes.

- Remove barriers for under-resourced communities to participate in the transportation planning process.

- Consider developing an inclusive public engagement planning guide, similar to those developed the cities of Seattle or Oakland, to assist planners.

- Locate public meetings in accessible and convenient locations and times.

- Host public meetings in informal settings that are conducive to participation and enable relationship-building.

- Communicate meetings through mediums that the community uses, such as social media, and provide ample advance notice of meetings. Partner with local community organizations to communicate meetings.

- Make meetings family-friendly or provide childcare at meetings.

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[65] FHWA, FHWA NHTS Brief: Mobility Challenges for Households in Poverty (2014). Available at: https://nhts.ornl.gov/briefs/PovertyBrief.pdf .

CHAPTER 6: THE 2045 NETWORK

This chapter details the types, numbers, and mileage of facilities in the plan. It shows the share of people, jobs, households, Equity Emphasis Areas, Activity Centers, and Transit Access Focus Areas that will be served by a network of high quality, low-stress facilities. It provides a cost estimate for building the 2045 Network, and it includes a network map and a link to an interactive map and dashboard.

Facility Type	Number of projects	Total Number of Miles
Bicycle Route Marking	117	53.19
Bike Boulevard	38	35.56
Bike Share	2	0.98
Bike/Scooter Corral	1	1.17
Bikeable Shoulders	3	4.26
Buffered Bicycle Lane	44	29.45
Contraflow Lanes	2	1.73
Other	96	112.89
Pedestrian Intersection Improvement	9	4.32
Pedestrian/Bicycle Bridge or Tunnel	8	3.10
Protected Bicycle Lane	210	137.79
Shared Use Path	810	1,707.00
Sidewalk	18	10.86
Standard Bicycle Lane	274	363.23
Streetscape/Pedestrian Improvements	17	44.93
Traffic Calming	1	1.83
Total	1650	2512.30

Table 8: Planned Bicycle and Pedestrian Facilities

The Bicycle and Pedestrian Plan for the National Capital Region includes 1650 bicycle and pedestrian facility improvement projects from across the region. If every project in the plan is implemented, in 2045 the region will have added approximately 138 miles of protected bicycle lanes, 30 miles of buffered bicycle lane, 274 miles of standard bicycle lanes, and over 1700 miles of shared-use path. The overall network length will increase by approximately 2500 miles.

If every project in the plan is built, the regional bike/ped network will increase by 2500 miles, to a total of roughly 3500 miles

The 2015 Bicycle and Pedestrian Plan included 593 miles of existing major shared-use paths, and 136 miles of existing on-street bike lanes. Bike lane construction under Complete Streets policies have accelerated since then, bringing the Washington region to over 300 miles of on-street bike lanes, and over 700 miles of major shared-used paths. If every project in this plan is built, the total network length in the year 2045 will be 3500 miles. This estimate does not include numerous neighborhood bike paths, sidewalks, hiking paths, roadway shoulders, and signed bicycle routes.

BUFFER ANALYSIS OF LOW STRESS FACILITIES

Facility Type	Total Number of Miles
Bike Boulevard	35.56
Protected Bicycle Lane	137.79
Shared Use Path	1,707.00
Total	1,880.35

Table 9: Planned Low Stress Facilities

Shared used paths, protected bike lane, and bicycle boulevards are considered to be low-stress, high quality facilities, suitable for all ages and abilities, and therefore potentially eligible to be part of the National Capital Trail Network. There are 1880 miles of such facilities planned. If this network existed in 2020, 75% of the population would be within a half-mile of it. The proportions of population and jobs withing ½ mile of this network in 2045 would be essentially the same, at 76% of population and 87% of jobs.

76% of the population and 87% of the jobs will be withing a half mile of a high quality, low stress bike/ped facility

Jurisdiction	2020 Population	2020 Employment	2020 Households
City of Alexandria	66,706	44,850	29,612
Arlington County	228,147	229,270	107,579
Charles County	37,062	13,669	13,961
District of Columbia	698,390	838,563	308,532
Fairfax Co. (Fairfax City & Falls Church)	1,102,731	697,546	399,181
Frederick County	114,341	84,621	42,967
Loudoun County	182,327	91,124	59,450
Montgomery County	793,464	474,091	300,863
Prince George's County	705,778	285,823	254,827
PrinceWilliamCo./Manassas/Manassas Par	346,853	143,818	113,132
Total	4,275,799	2,903,375	1,630,104
% within 1/2 mile of low-stress network	75%	86%	77%

Table 10: Population, Employment, and Households within 1/2 mile of a Low-Stress Facility in the Planned Network

Jurisdiction	2045 Population	2045 Employment	2045 Households
City of Alexandria	102,700	49,545	45,901
Arlington County	296,380	290,722	139,717
Charles County	47,801	21,596	19,368
District of Columbia	949,057	1,035,502	400,215
Fairfax Co. (Fairfax City & Falls Church)	1,347,956	888,196	509,748
Frederick County	149,792	105,495	57,354
Loudoun County	238,435	140,525	81,617
Montgomery County	933,685	596,458	360,567
Prince George's County	767,078	330,043	290,771
PrinceWilliamCo./Manassas/Manassas Park	441,957	220,764	151,576
Total	5,274,841	3,678,846	2,056,834
% within 1/2 mile of low-stress network	76%	87%	77%

Table 11: 2045 Population, Employment and Households with 1/2 Mile of a Low Street Facility

EQUITY EMPHASIS AREAS, ACTIVITY CENTERS, AND TAFA'S

Equity Emphasis Areas are the 351 of the region's 1,222 total census tracts identified by the TPB as having high concentrations of low-income individuals and communities of

80% of Equity Emphasis Areas will get a High Quality Bike/Ped Facility

color. In this plan, 283 of the Equity Emphasis Area in the region will have high quality bicycle or pedestrian facility built within their boundaries, as will 132 of the 141 Activity Centers, and 42 of the 49 Transit Access Focus Areas (TAFAS). TAFA's are areas around high capacity transit stations that have been identified as having the greatest need for improvements to make it easier for people to walk and bike to transit.

94% of Activity Centers, and 86% of Transit Access Focus Areas, will get a High Quality Bike/Ped Facility

Project Infotrak Database and the Interactive Map and Dashboard

Over the course of more than a year, the TPB member jurisdictions provided project information and associated GIS layers for the consultant to load into the new database, and then worked with TPB staff to correct incomplete data or shape files. Almost every project in the database that can and should be mapped, is mapped. The GIS map in turn helps us analyze the degree to which the network will serve the TPB's priorities.

THE 2045 NETWORK MAP

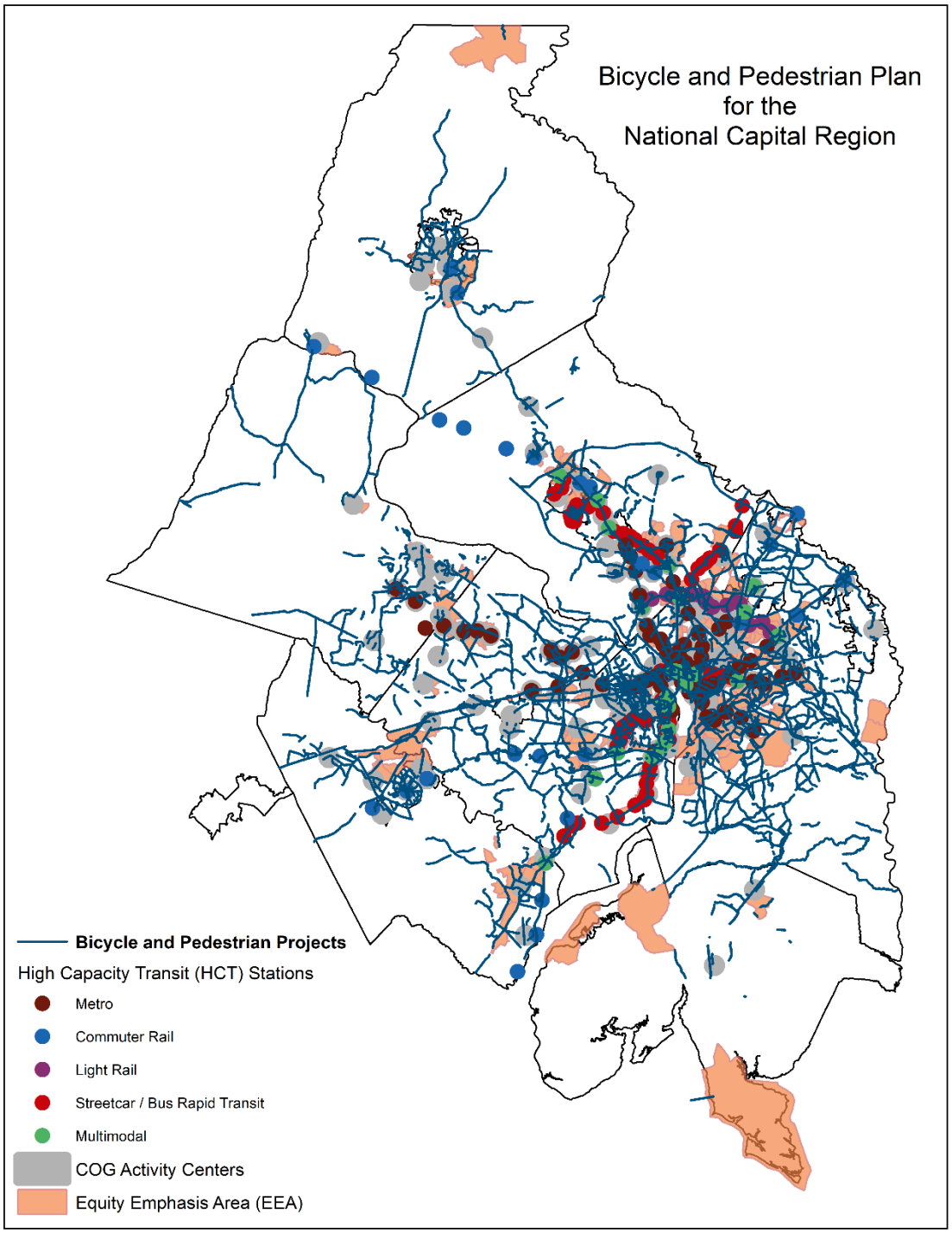


Figure 50 Planned Bicycle and Pedestrian Network

An interactive map of the planned projects can be found at https://mwcog.maps.arcgis.com/apps/webappviewer/index.html?id=4039e0b083fd4474896a8d17be8622ee.

COST ESTIMATE

Building the Network is Expected to Cost $5 Billion

Given the difficulties of getting actual cost estimates for each project, we have imputed a range of regional costs for the plan based on an typical cost per mile or per project.

Costs for bicycle and pedestrian projects vary wildly. Costs for pavement restriping can be very low, especially if carried out in conjunction with scheduled resurfacing. On the other hand, complex urban projects can be startlingly expensive.

The Capital Trails Coalition has studied local construction costs within the Washington region, meeting with the staff at the different jurisdictions within the urban core to gather actual costs from recently completed trail projects, as well as locally known project cost estimates..

The top 20 most expensive projects within the Capital Trails Network account for 50% of the cost estimate for completing 408 miles of trail in the urban core and inner suburbs. Completing those 408 miles, according to the combined estimates by the jurisdiction staff, will take $1.2 billion. Long-distance trails and complex urban projects comprise the top 20 most expensive projects within the network and are not representative of average trail project costs.

The total cost of bicycle and pedestrian improvements listed in the regional plan, based on facility types and mileage, is expected to be on the order of $5 billion (2020 dollars).

	Imputed Costs for Selected Bicycle Facilities (in thousands of dollars)			
Facility Type	Imputed Cost Range per Mile or per Project	Average	Miles or Number of Projects	Imputed Cost
Shared Use Path[66]	$400 - $3,000	1700	1707 miles	$680,000 - $5,100,000
Bicycle Lane	$5 - $50	27	395 miles	$2,000 - $40,000
Protected Bicycle Lane	$130-$540	140	138	$18,000- $74,500
Pedestrian/Bicycle Bridge/Tunnel	$2,000 - $10,000	600	8 projects	$16,000 - $80,000
Pedestrian	$500 - $1000	750	9 projects	$4,500 - -

[66] https://www.capitaltrailscoalition.org/network-cost-estimate/

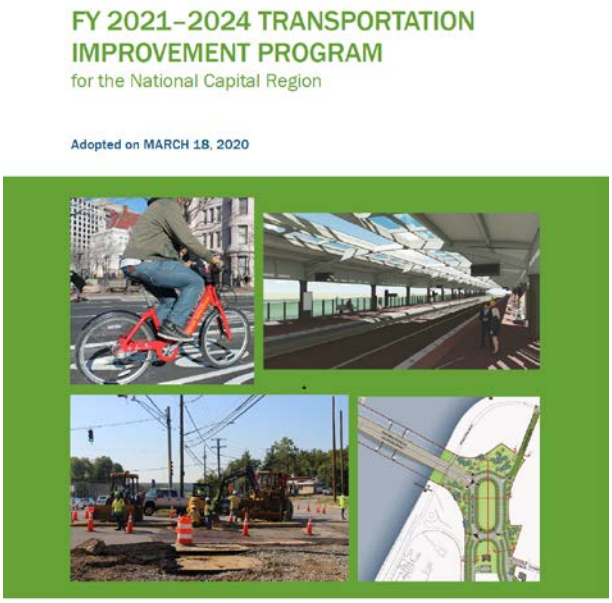
Intersection Improvement				$9,000
Streetscape	$2,000 - $5,000	2,500	17 projects	$34,000 - $85,000
Total				$600,000 - $6,060,000

Table 12: Imputed Costs

COST OF BIKE/PED PROJECTS IN THE 2021-2024 TRANSPORTATION IMPROVEMENT PROGRAM

To put the $5 billion estimate in context, the TPB's four-year, FY 2021–2024 TIP contains over 300 project records and more than $15 billion in funding across the region. Of the 420 TIP projects, 49 are identified as being "primarily a bicycle and/or pedestrian project. These projects add up to $751 million, or **4.7% of the funding in the four year TIP**. If the region maintains that level of spending through 2045**, it will spend roughly $4.7 billion on pedestrian and bicycle infrastructure.**

The COG/TPB's goal to increase the rate of construction of bicycle and pedestrian facilities in the region is being met. Funding for bicycle and pedestrian projects in the TIP has increased sharply during the last decade. For example, the six-year Fiscal Year 2013-2018 TIP included $313 million for bicycle and pedestrian projects.



The TIP does not provide a complete picture of the region's planned investments in bicycle and pedestrian infrastructure. Every submitting agency reported that their jurisdiction had a Complete Streets policy, which implies pedestrian and bicycle accommodations in larger road or transit projects. The cost of those accommodations is not always calculated or reported. Privately funded infrastructure is not included in the TIP.

EXPLANATION OF PROJECT LISTINGS

Appendix A lists the plan projects, organized alphabetically by lead agency.

The Project Infotrak database contains more extensive information. Agency staff may enter via a password-protected web site to enter, edit, and delete project information.

This project list is intended to be a list of significant planned bicycle and pedestrian projects in the Washington region. Agencies were encouraged to submit projects for inclusion if they were one mile or more in length, or cost more than $400,000. Small sidewalk projects are not included unless they were part of a larger pedestrian or bicycle project.

APPENDIX A: 2045 NETWORK PROJECTS

BY LEAD AGENCY

PROJECT TITLE	FACILITY TYPE	COUNTY	LEAD_AGY	PROJECT _ID *	Length (Miles)
10th Street North Bicycle Facility	Other	Arlington	Arlington Co. DES	8576	0.646019
110 Trail/cemetery Wall Trail	Shared Use Path	Arlington	Arlington Co. DES	7278	1.16809
11th Street North Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8580	0.648984
15th and 16th Streets N. Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8567	1.505863
16th Street South Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8592	0.853824
18th Street South Bicycle Facility	Other	Arlington	Arlington Co. DES	8545	0.209661
19th Street North Bicycle Lanes	Standard Bicycle Lane	Arlington	Arlington Co. DES	8564	0.15411
20th Street South Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8587	0.89751
22nd St North Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8534	1.685924
22nd Street South Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8593	0.521971
26th Street Bicycle Boulevard	Bike Boulevards	Arlington	Arlington Co. DES	8535	2.212628
8th Road N./Bluemont Park Connector	Shared Use Path	Arlington	Arlington Co. DES	8491	0.108638
Airport Viaduct Connector	Standard Bike Lane	Arlington	Arlington Co. DES	8507	0.624556

Alcova Heights/South Glebe Road Improvements	Streetscape/Pedestrian Improvements	Arlington	Arlington Co. DES	8514	0.925679
Arlington Boulevard Trail	Shared Use Path	Arlington	Arlington Co. DES	7324	4.593519
Arlington National Cemetery Wall Trail	Shared Use Path	Arlington	Arlington Co. DES	8509	0.402012
Army Navy Country Club Emergency Access Road	Other	Arlington	Arlington Co. DES	8498	0.205294
Army Navy Drive Protected Bike Lane	Shared Use Path	Arlington	Arlington Co. DES	7287	0.685302
Ashton Heights-Lyon Park Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8575	1.181985
Bluemont Junction Trail Upgrades	Shared Use Path	Arlington	Arlington Co. DES	8518	1.286173
Bluemont Park to Upton Hill Park Trail	Shared Use Path	Arlington	Arlington Co. DES	8519	0.387779
Chain Bridge Access Improvements	Shared Use Path	Arlington	Arlington Co. DES	8524	0.39297
Chain Bridge Connection Enhancements	Pedestrian Intersection Improvement	Arlington	Arlington Co. DES	8560	0.39297
Chain Bridge Road /Pimmit Run Trail	Shared Use Path	Arlington	Arlington Co. DES	8520	0.181584
Clarendon Metro Station Access	Other	Arlington	Arlington Co. DES	8550	0.675029
Columbia Pike Bicycle Boulevards Expansion	Bike Boulevards	Arlington	Arlington Co. DES	8505	2.822676
Columbia Pike Sidewalk Project	Shared Use Path	Arlington	Arlington Co. DES	7315	0.810627
Courthouse Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8549	0.180224
Crystal Drive Two-Way Conversion Bicycle Lanes	Standard Bike Lane	Arlington	Arlington Co. DES	8486	0.149802

Crystal Drive/Potomac Avenue Enhanced Bicycle Facilities	Other	Arlington	Arlington Co. DES	8544	1.361968
Culpepper to 20th Street North Connector	Shared Use Path	Arlington	Arlington Co. DES	8522	0.101536
Custis (I-66) Trail Renovation	Shared Use Path	Arlington	Arlington Co. DES	8493	5.185875
Donaldson Run Trail Renovation	Shared Use Path	Arlington	Arlington Co. DES	8521	0.963169
Fairfax Drive Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8566	0.253574
Fairfax Drive Bicycle Facility	Other	Arlington	Arlington Co. DES	8565	0.358652
Fairfax Drive Enhanced Bicycle Facility	Other	Arlington	Arlington Co. DES	8553	1.088785
Fifth Road South Bicycle Facility	Other	Arlington	Arlington Co. DES	8588	0.14844
Fort Myer Drive - North Detour	Other	Arlington	Arlington Co. DES	7333	0.430978
Fort Myer Drive Protected Bike Lanes	Protected Bicycle Lane	Arlington	Arlington Co. DES	8556	0.424376
Fort Scott Drive Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8591	0.961058
Four Mile Run - Potomac Yards Connector	Shared Use Path	Arlington	Arlington Co. DES	7336	0.054647
Four Mile Run & W&OD Trail Improvements in Benjamin Banneker Park	Shared Use Path	Arlington	Arlington Co. DES	8484	0.301498
Four Mile Run Bridge	Pedestrian/Bicycle Bridge or Tunnel	Arlington	Arlington Co. DES	8508	0.192318
Four Mile Run Trail Enhancements	Shared Use Path	Arlington	Arlington Co. DES	8494	2.001904
Freedom Park Enhancements	Shared Use Path	Arlington	Arlington Co. DES	8512	0.320018
Glencarlyn/Hospital Trail	Shared Use Path	Arlington	Arlington Co. DES	8515	0.320894
Henderson Rd/S Abingdon/3rd	Bike Boulevard	Arlington	Arlington Co. DES	8590	1.414283

Street/ S Wakefield Bicycle Boulevard					
I-66 Overpass	Pedestrian/Bicycle Bridge or Tunnel	Arlington	Arlington Co. DES	8511	0.158718
Irving Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8589	1.224527
Iwo Jima Memorial Connection to Theodore Roosevelt Bridge	Shared Use Path	Arlington	Arlington Co. DES	8504	0.284047
John Marshal Drive/Ohio Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8582	1.976577
Key Boulevard Trail Renovation	Shared Use Path	Arlington	Arlington Co. DES	8513	0.401585
Key Boulevard/13th Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8574	1.682632
Kirkwood Road Bicycle Lanes	Standard Bike Lane	Arlington	Arlington Co. DES	8578	0.088478
Lee Highway (eastbound) Bicycle Lane	Standard Bike Lane	Arlington	Arlington Co. DES	8557	0.894231
Lee Highway Bicycle Facility	Other	Arlington	Arlington Co. DES	8532	1.240927
Lee Highway Bicycle Facility	Other	Arlington	Arlington Co. DES	8533	1.085257
Lee Highway Bicycle Lanes	Other	Arlington	Arlington Co. DES	8558	0.479298
Long Bridge Extension	Shared Use Path	Arlington	Arlington Co. DES	7428	0.478819
Long Bridge Section	Shared Use Path	Arlington	Arlington Co. DES	7356	0.70983
Manchester Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8597	0.210528
Manchester Street/Bluemont Connection	Shared Use Path	Arlington	Arlington Co. DES	8517	0.066998
McKinley Road Buffered Bicycle Lanes	Buffered Bicycle Lane	Arlington	Arlington Co. DES	8490	0.611253
Memorial Bridge Detour	Other	Arlington	Arlington Co. DES	7449	0.846585

Memorial Bridge Detour	Other	Arlington	Arlington Co. DES	7450	0.105409
Mount Vernon Pentagon Connector	Shared Use Path	Arlington	Arlington Co. DES	7429	0.185166
Mount Vernon Trail Extension	Shared Use Path	Arlington	Arlington Co. DES	8523	9.731946
N. Abingdon/ N. Cameron/Columbus Streets Bicycle Facility	Other	Arlington	Arlington Co. DES	8536	1.462543
N. Carlin Springs Rd Bicycle Facility	Other	Arlington	Arlington Co. DES	8583	1.287411
N. Carlin Springs Road Trail	Shared Use Path	Arlington	Arlington Co. DES	8516	0.338461
N. Edison/4th Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8537	0.455477
N. Fillmore Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8548	0.128528
N. George Mason Dr Bicycle Facility	Other	Arlington	Arlington Co. DES	8526	1.477133
N. Glebe Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8528	1.437055
N. Glebe Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8531	2.922592
N. Harrison Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8538	3.056743
N. Jackson Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8577	0.960199
N. Lynn Street Protected Bicycle Lanes	Protected Bicycle Lane	Arlington	Arlington Co. DES	8562	0.262897
N. Meade Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8555	0.205686
N. Nash Street Protected Bicycle Lanes	Protected Bicycle Lane	Arlington	Arlington Co. DES	8563	0.154419
N. Quincy Street/Military Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8541	0.50978
N. Stafford Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8581	1.024492

N. Sycamore Street/N. Roosevelt Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8561	1.501535
North Ballston Custis Connection	Other	Arlington	Arlington Co. DES	8530	0.105072
Old Dominion Drive	Pedestrian Intersection Improvement	Arlington	Arlington Co. DES	8559	0.148308
Park Drive Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8540	0.964346
Penrose-Courthouse Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8547	0.610082
Potomac Yard Four Mile Run Trail Connector	Shared Use Path	Arlington	Arlington Co. DES	8485	0.261219
Quaker Lane Bicycle Facility	Other	Arlington	Arlington Co. DES	8569	0.669396
Rock Spring Road Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8568	0.40046
Rock Spring Road/35th Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8598	1.231705
Rosslyn Circle Underpass	Pedestrian/Bicycle Bridge or Tunnel	Arlington	Arlington Co. DES	8506	0.073303
Route 110 South Trail	Shared Use Path	Arlington	Arlington Co. DES	8510	1.143844
Route 110 Trail Upgrades	Shared Use Path	Arlington	Arlington Co. DES	8500	0.712989
S. Carlin Springs Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8570	0.347374
S. Courthouse Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8595	0.587652
S. Fern Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8584	0.547508
S. George Mason Drive Bicycle Facility	Other	Arlington	Arlington Co. DES	8525	2.205208
S. Glebe Road Enhanced Bicycle Facility	Other	Arlington	Arlington Co. DES	8527	2.28006

S. Joyce - June Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8585	0.7813
S. Joyce Street/15th Street S. Enhanced Bicycle Facility	Other	Arlington	Arlington Co. DES	8546	0.519168
S. Lynn St/Arlington Ridge Road Bicycle Facility	Other	Arlington	Arlington Co. DES	8586	1.544626
S. Monroe Street Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8594	1.182416
Shirlington Road Bridge	Pedestrian/Bicycle Bridge or Tunnel	Arlington	Arlington Co. DES	8489	0.074521
Shirlington Road/S. Kenmore St Bicycle Facility	Other	Arlington	Arlington Co. DES	8539	0.864975
South 2nd Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8596	1.046167
South Clark Cycle Track	Protected Bicycle Lane	Arlington	Arlington Co. DES	7279	0.395166
Tr Bridge To N Meade St	Shared Use Path	Arlington	Arlington Co. DES	7413	0.19837
Virginia Square - Cherrydale Bicycle Boulevard	Bike Boulevard	Arlington	Arlington Co. DES	8579	1.020854
W&OD/FMR Trail Crossing of Shirlington Road	Pedestrian Intersection Improvement	Arlington	Arlington Co. DES	8495	0.074521
Walter Reed Drive Bicycle Facility	Other	Arlington	Arlington Co. DES	8542	1.524934
Walter Reed Drive/ Fillmore Street Bicycle Facility	Other	Arlington	Arlington Co. DES	8543	0.326684
Washington Boulevard Bicycle Facility	Other	Arlington	Arlington Co. DES	8571	1.050585
Washington Boulevard Bicycle Facility	Other	Arlington	Arlington Co. DES	8572	1.100944

Washington Boulevard Bicycle Facility	Other	Arlington	Arlington Co. DES	8573	2.371331
Washington Boulevard Bridge	Other	Arlington	Arlington Co. DES	7451	0.195116
Washington Boulevard Bridge	Other	Arlington	Arlington Co. DES	7452	0.084639
Washington Boulevard Sidewalk Upgrade	Shared Use Path	Arlington	Arlington Co. DES	8499	1.184261
West Ballston Connection	Shared Use Path	Arlington	Arlington Co. DES	8497	0.270969
West Ballston On-Street Bicycle Facility	Bike Boulevard	Arlington	Arlington Co. DES	8529	1.014086
Wilson Boulevard Bicycle Facility	Other	Arlington	Arlington Co. DES	8554	1.855804
Wilson Boulevard Protected Bicycle Lanes	Protected Bicycle Lane	Arlington	Arlington Co. DES	8552	0.288035
Wilson Boulevard/Clarendon Boulevard Enhanced Bicycle Facilities	Other	Arlington	Arlington Co. DES	8551	2.900598
Billingsley Road East Shared Use Path	Shared Use Path	Charles	Charles County	8867	1.367674
Billingsley Road Shared Use Path	Shared Use Path	Charles	Charles County	8852	4.588794
Hamilton Road Sidewalk	Streetscape/Pedestrian Improvements	Charles	Charles County	8849	1.200271
Middletown Road at Billingsley Road Intersection Treatments	Pedestrian Intersection Improvement	Charles	Charles County	8871	0.009844
Middletown Road Shared Use Path	Shared Use Path	Charles	Charles County	8858	0.863011
Old Washington Road Reconstruction	Streetscape/Pedestrian Improvements	Charles	Charles County	8847	1.062086
Radio Station Road Shared Use Path	Shared Use Path	Charles	Charles County	8857	1.635779

Rose Hill Road Shared Use Path Construction	Shared Use Path	Charles	Charles County	8869	2.681716
Smallwood Drive Shared Use Path	Shared Use Path	Charles	Charles County	8855	0.68398
Smallwood Drive West Shared Use Paths	Shared Use Path	Charles	Charles County	8870	5.439063
Southern Md Rapid Transit Study	Other	Charles	Charles County	7571	6.19599
St. Charles Parkway Shared Use Path	Shared Use Path	Charles	Charles County	8854	2.764932
St. Patrick's Drive Shared Use Path	Shared Use Path	Charles	Charles County	8851	0.36145
St. Patrick's Drive Shared Use Path Connection	Shared Use Path	Charles	Charles County	8853	0.447176
St. Paul's Drive Shared Use Path	Shared Use Path	Charles	Charles County	8850	0.498153
US 301 Smallwood Drive Crosswalks	Pedestrian Intersection Improvement	Charles	Charles County	8856	0.046632
Washington Avenue Sidewalk	Streetscape/Pedestrian Improvements	Charles	Charles County	8866	0.870117
Western Parkway Phase III	Shared Use Path	Charles	Charles County	8848	0.812047
BASHFORD LN	Bicycle Route Marking	City of Alexandria	City of Alexandria	8946	0.368167
BERNARD ST	Bicycle Route Marking	City of Alexandria	City of Alexandria	8942	0.129497
CALLAHAN DR	Bicycle Route Marking	City of Alexandria	City of Alexandria	8927	0.196349
CAMBRIDGE RD	Bicycle Route Marking	City of Alexandria	City of Alexandria	8935	0.475935
CAMERON MILLS RD	Bicycle Route Marking	City of Alexandria	City of Alexandria	8937	1.345942
Cameron Station	Sidewalk	City of Alexandria	City of Alexandria	7049	0.04261
CAMERON STATION BLVD	Standard Bicycle Lane	City of Alexandria	City of Alexandria	8894	0.06434
CARPENTER RD	Bicycle Route Marking	City of Alexandria	City of Alexandria	8930	0.070843
DEWITT AVE	Bicycle Route Marking	City of Alexandria	City of Alexandria	8956	0.230487
DUKE ST	Standard Bicycle Lane	City of Alexandria	City of Alexandria	8884	4.067486

E ABINGDON DR	Standard Bicycle Lane	City of andria	City of Alexandria	8913	0.135247
E CUSTIS AVE	Bicycle Route Marking	City of andria	City of Alexandria	8926	0.480388
E GLENDALE AVE	Bicycle Route Marking	City of andria	City of Alexandria	8951	0.269217
E HOWELL AVE	Bicycle Route Marking	City of andria	City of Alexandria	8962	0.556904
E LURAY AVE	Bicycle Route Marking	City of andria	City of Alexandria	8953	0.267889
E MOUNT IDA AVE	Bicycle Route Marking	City of andria	City of Alexandria	8933	0.471256
E UHLER AVE	Bicycle Route Marking	City of andria	City of Alexandria	8924	0.123203
EDISON ST	Bicycle Route Marking	City of andria	City of Alexandria	8959	0.225685
EDSALL RD	Standard Bicycle Lane	City of andria	City of Alexandria	8896	0.80695
EISENHOWER AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8917	0.161608
Eisenthower Ave	Sidewalk	City of andria	City of Alexandria	8451	0.203021
FARRINGTON AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8915	0.229828
Fort Williams Pkwy	Standard Bicycle Lane	City of andria	City of Alexandria	8892	0.762436
FRANCIS HAMMOND PKWY	Bicycle Route Marking	City of andria	City of Alexandria	8947	0.079134
HOLMES RUN PKWY	Bicycle Route Marking	City of andria	City of Alexandria	8934	0.607052
KENMORE AVE	Bicycle Route Marking	City of andria	City of Alexandria	8931	0.276978
KEY DR	Bicycle Route Marking	City of andria	City of Alexandria	8945	0.522859
KING ST	Standard Bicycle Lane	City of andria	City of Alexandria	8900	1.430405
King St from S 28th to N Quaker	Sidewalk	City of andria	City of Alexandria	7123	1.643378
LESLIE AVE	Bicycle Route Marking	City of andria	City of Alexandria	8955	0.202974
MADISON ST	Standard Bicycle Lane	City of andria	City of Alexandria	8902	0.595761
MARK CENTER DR	Bicycle Route Marking	City of andria	City of Alexandria	8943	0.364914
MASSEY LN	Other	City of andria	City of Alexandria	8920	0.057383

METRO RD	Standard Bicycle Lane	City of andria	City of Alexandria	8914	0.293233
MOUNT VERNON AVE	Bicycle Route Marking	City of andria	City of Alexandria	8925	0.474085
N BEAUREGARD ST	Standard Bicycle Lane	City of andria	City of Alexandria	8899	1.519021
N Fayette	Sidewalk	City of andria	City of Alexandria	7167	0.03955
N FAYETTE ST	Bicycle Route Marking	City of andria	City of Alexandria	8960	0.291029
N GORDON ST	Bicycle Route Marking	City of andria	City of Alexandria	8941	0.189326
N Jordan St	Sidewalk	City of andria	City of Alexandria	7169	0.471039
N JORDAN ST	Standard Bicycle Lane	City of andria	City of Alexandria	8891	1.145317
N LATHAM ST	Standard Bicycle Lane	City of andria	City of Alexandria	8879	0.123015
N PITT ST	Standard Bicycle Lane	City of andria	City of Alexandria	8905	0.202673
N QUAKER LN	Standard Bicycle Lane	City of andria	City of Alexandria	8897	1.173911
N RIPLEY ST	Standard Bicycle Lane	City of andria	City of Alexandria	8882	0.324099
N ROSSER ST	Bicycle Route Marking	City of andria	City of Alexandria	8921	0.469158
N STEVENS ST	Bicycle Route Marking	City of andria	City of Alexandria	8950	0.201977
N Van Dorn from Kenmore past Fort Ward Park	Sidewalk	City of andria	City of Alexandria	7175	0.657091
N VAN DORN ST	Standard Bicycle Lane	City of andria	City of Alexandria	8919	2.471635
NETHERTON DR	Standard Bicycle Lane	City of andria	City of Alexandria	8901	0.362206
ORONOCO ST	Bicycle Route Marking	City of andria	City of Alexandria	8944	0.171342
POLK AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8878	0.449087
POTOMAC GREENS DR	Standard Bicycle Lane	City of andria	City of Alexandria	8872	0.358167
RAYBURN AVE	Bicycle Route Marking	City of andria	City of Alexandria	8954	0.390222
READING AVE	Bicycle Route Marking	City of andria	City of Alexandria	8958	0.205286
REINEKERS LN	Standard Bicycle Lane	City of andria	City of Alexandria	8881	0.043476

RUSSELL RD	Bicycle Route Marking	City of andria	City of Alexandria	8929	2.485436
Russell Rd from Cedar to King St	Sidewalk	City of andria	City of Alexandria	7223	0.071687
Russell Rd from W Bellefonte to W Mason, W Monroe from Russell to Hancock	Sidewalk	City of andria	City of Alexandria	7224	0.151898
S 30TH ST	Bicycle Route Marking	City of andria	City of Alexandria	8961	0.056973
S EARLY ST	Standard Bicycle Lane	City of andria	City of Alexandria	8912	0.237174
S GORDON ST	Standard Bicycle Lane	City of andria	City of Alexandria	8889	0.265385
S PAYNE ST	Bicycle Route Marking	City of andria	City of Alexandria	8948	0.192759
S Payne St, Jefferson St	Sidewalk	City of andria	City of Alexandria	7226	0.033116
S PICKETT ST	Standard Bicycle Lane	City of andria	City of Alexandria	8906	0.591657
S REYNOLDS ST	Standard Bicycle Lane	City of andria	City of Alexandria	8911	0.467911
S WEST ST	Bicycle Route Marking	City of andria	City of Alexandria	8952	0.157544
SANGER AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8904	0.582949
Seminary Rd	Sidewalk	City of andria	City of Alexandria	7231	0.27159
SEMINARY RD	Standard Bicycle Lane	City of andria	City of Alexandria	8875	1.54887
SLATERS LN RAMP TO N HENRY ST SB	Standard Bicycle Lane	City of andria	City of Alexandria	8909	0.324855
STEVENSON AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8883	0.33407
STEWART AVE	Bicycle Route Marking	City of andria	City of Alexandria	8939	0.24585
STOVALL ST	Standard Bicycle Lane	City of andria	City of Alexandria	8893	0.100205
SWANN AVE	Standard Bicycle Lane	City of andria	City of Alexandria	8877	0.295087
UPLAND PL	Standard Bicycle Lane	City of andria	City of Alexandria	8890	0.36929
W ABINGDON DR	Bicycle Route Marking	City of andria	City of Alexandria	8964	0.318215

W Braddock	Sidewalk	City of andria	City of Alexandria	7263	0.306398
W GLEBE RD	Bicycle Route Marking	City of andria	City of Alexandria	8963	0.213586
W REED AVE	Bicycle Route Marking	City of andria	City of Alexandria	8949	0.621525
WOODBINE ST	Bicycle Route Marking	City of andria	City of Alexandria	8965	0.187324
Country Club Commons Connector Trail	Shared Use Path	Fairfax	City of Fairfax	7747	0.144569
George Snyder Trail	Shared Use Path	Fairfax	City of Fairfax	7745	1.366183
Jermantown Road Corridor Improvements	Shared Use Path	Fairfax	City of Fairfax	7748	0.737022
Old Lee Highway Multimodal Improvements	Shared Use Path	Fairfax	City of Fairfax	7744	1.452298
Pickett Trail Connector	Shared Use Path	Fairfax	City of Fairfax	7746	0.248196
7th St	Shared Use Path	Frederick	City of Frederick	7720	0.554643
Baughmans Ln	Shared Use Path	Frederick	City of Frederick	7737	0.423684
Butterfly Ln	Shared Use Path	Frederick	City of Frederick	7740	0.948978
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7558	1.06484
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7560	0.224975
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7561	0.428882
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7563	0.376956
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7564	1.246804
Carroll Creek	Shared Use Path	Frederick	City of Frederick	7565	2.102776
E Church St	Shared Use Path	Frederick	City of Frederick	7722	0.63205
E Patrick St	Shared Use Path	Frederick	City of Frederick	7730	1.260087
East St	Other	Frederick	City of Frederick	7566	2.214069
East St	Other	Frederick	City of Frederick	7568	0.512844

East St	Bike Route Marking	Frederick	City of Frederick	7718	0.320736
Gas House Pike	Shared Use Path	Frederick	City of Frederick	7721	2.015702
H&F Trolley Trail	Shared Use Path	Frederick	City of Frederick	7591	1.063135
Key Pkwy	Shared Use Path	Frederick	City of Frederick	7738	1.624301
Lee Pl	Shared Use Path	Frederick	City of Frederick	7735	0.577397
Madison St	Shared Use Path	Frederick	City of Frederick	7729	0.329266
Main St - Md144	Shared Use Path	Frederick	City of Frederick	7731	0.486116
Mccain Dr	Shared Use Path	Frederick	City of Frederick	7739	1.032738
Mill Pond Rd	Shared Use Path	Frederick	City of Frederick	7724	0.143035
Mill Pond Rd	Shared Use Path	Frederick	City of Frederick	7743	0.323315
Monocacy Blvd	Other	Frederick	City of Frederick	7554	2.51876
Monocacy Blvd	Other	Frederick	City of Frederick	7555	0.682585
Monocacy Blvd	Other	Frederick	City of Frederick	7559	0.626733
Monocacy Blvd	Other	Frederick	City of Frederick	7562	0.286445
Monocacy Blvd	Other	Frederick	City of Frederick	7577	0.647739
Monocacy Blvd	Other	Frederick	City of Frederick	7578	0.51737
Monocacy Blvd	Bike Route Marking	Frederick	City of Frederick	7719	0.692928
Monocacy River	Shared Use Path	Frederick	City of Frederick	7557	3.186478
N Market St	Shared Use Path	Frederick	City of Frederick	7726	2.725403
Opposumton Pike	Shared Use Path	Frederick	City of Frederick	7732	2.711981
Rosemont Ave	Shared Use Path	Frederick	City of Frederick	7742	1.451421
Routzahn Way	Shared Use Path	Frederick	City of Frederick	7725	0.108685
S Market St	Shared Use Path	Frederick	City of Frederick	7727	0.83572
Shookstown Rd	Shared Use Path	Frederick	City of Frederick	7736	0.335301

Stadium Dr	Shared Use Path	Frederick	City of Frederick	7728	0.564733
Taney Ave	Shared Use Path	Frederick	City of Frederick	7734	0.85969
Tbd	Shared Use Path	Frederick	City of Frederick	7567	1.801454
Thomas Johnson Dr	Shared Use Path	Frederick	City of Frederick	7733	1.922525
Tuscarora Creek	Shared Use Path	Frederick	City of Frederick	7556	0.65243
Tuscarora Creek	Shared Use Path	Frederick	City of Frederick	7569	1.550143
Tuscarora Creek	Shared Use Path	Frederick	City of Frederick	7570	0.157161
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7572	0.168742
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7573	1.550143
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7576	0.157161
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7580	0.119912
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7581	0.450522
Tuscarora Creek Trail	Shared Use Path	Frederick	City of Frederick	7582	0.336431
Wormans Mill Rd	Shared Use Path	Frederick	City of Frederick	7723	0.704448
Yellow Springs Rd	Shared Use Path	Frederick	City of Frederick	7741	1.36323
Hungerford Dr (MD 355)	Shared Use Path	Montgom	City of Gaithersburg	7689	0.762064
Hungerford Dr (MD 355)	Protected Bicycle Lane	Montgom	City of Gaithersburg	7694	0.773681
Omega Dr	Protected Bicycle Lane	Montgom	City of Gaithersburg	8092	0.34881
Service Road A	Shared Use Path	Montgom	City of Gaithersburg	7684	0.25778
W Diamond Ave (MD 117)	Shared Use Path	Montgom	City of Gaithersburg	7685	0.226692
Ashton Ave	Bike Route Marking	Prince am	City of Manassas	7797	0.84021
Battle St	Bike Route Marking	Prince am	City of Manassas	7795	0.104112
Breeden Ave	Standard Bicycle Lane	Prince am	City of Manassas	7754	0.186382
Center St	Standard Bicycle Lane	Prince am	City of Manassas	7762	0.941881

Center St	Bike Route Marking	Prince am	City of Manassas	7799	0.771846
Church St	Standard Bicycle Lane	Prince am	City of Manassas	7761	0.606305
Clover Hill Rd	Standard Bicycle Lane	Prince am	City of Manassas	7778	0.699807
Dean Dr	Standard Bicycle Lane	Prince am	City of Manassas	7768	0.820266
Dean Park Ln	Shared Use Path	Prince am	City of Manassas	7777	1.372886
East St	Bike Route Marking	Prince am	City of Manassas	7771	0.045465
Eucid Ave	Standard Bicycle Lane	Prince am	City of Manassas	7798	0.358577
Fairview Ave	Shared Use Path	Prince am	City of Manassas	7780	0.09769
Fairview Ave	Bike Route Marking	Prince am	City of Manassas	7781	0.574783
Garland Ct And Winterwood Ct Connector	Shared Use Path	Prince am	City of Manassas	7800	0.159955
Gateway Blvd	Shared Use Path	Prince am	City of Manassas	7775	0.794763
Gateway Blvd And Godwin Dr Connector	Shared Use Path	Prince am	City of Manassas	7776	0.393217
Godwin Dr	Standard Bicycle Lane	Prince am	City of Manassas	7796	0.342494
Grant Ave	Standard Bicycle Lane	Prince am	City of Manassas	7749	0.99852
Grant Ave	Bike Route Marking	Prince am	City of Manassas	7786	1.220353
Hastings Dr	Standard Bicycle Lane	Prince am	City of Manassas	7763	0.631048
Hastings Dr	Bike Route Marking	Prince am	City of Manassas	7779	2.318665
Jackson Ave	Bike Route Marking	Prince am	City of Manassas	7787	0.281408
Kirby St	Bike Route Marking	Prince am	City of Manassas	7785	0.10971
Kirby St And Vicksburg Ln	Bike Route Marking	Prince am	City of Manassas	7784	0.169612
Lake Jackson Dr	Standard Bicycle Lane	Prince am	City of Manassas	7757	0.475408
Liberia Ave	Standard Bicycle Lane	Prince am	City of Manassas	7758	2.163726
Liberia Ave	Bike Route Marking	Prince am	City of Manassas	7788	0.277198

Liberty Dr	Bike Route Marking	Prince am	City of Manassas	7804	0.140787
Lucasville Rd	Standard Bicycle Lane	Prince am	City of Manassas	7769	0.127231
Main St	Bike Route Marking	Prince am	City of Manassas	7766	0.048101
Main St	Bike Route Marking	Prince am	City of Manassas	7789	0.741586
Mathis Ave	Standard Bicycle Lane	Prince am	City of Manassas	7755	0.170781
Merit Ct And Olden Ct Connector	Shared Use Path	Prince am	City of Manassas	7801	0.076463
Namette Dr Ext	Shared Use Path	Prince am	City of Manassas	7805	0.060067
Oakenshaw Dr	Standard Bicycle Lane	Prince am	City of Manassas	7756	0.651446
Observation Dr	Bike Route Marking	Prince am	City of Manassas	7773	0.983687
Park Ave	Bike Route Marking	Prince am	City of Manassas	7790	0.8259
Plantation Ln	Standard Bicycle Lane	Prince am	City of Manassas	7759	0.613072
Portner Ave	Standard Bicycle Lane	Prince am	City of Manassas	7752	1.367464
Prince William St	Standard Bicycle Lane	Prince am	City of Manassas	7750	1.498469
Public Works Dr	Shared Use Path	Prince am	City of Manassas	7793	0.133415
Quarry Rd	Standard Bicycle Lane	Prince am	City of Manassas	7751	0.586138
Redoubt Rd	Shared Use Path	Prince am	City of Manassas	7767	0.138778
Robnel Ave	Bike Route Marking	Prince am	City of Manassas	7791	0.783038
Rolling Rd	Standard Bicycle Lane	Prince am	City of Manassas	7760	0.695755
Stonewall Park	Shared Use Path	Prince am	City of Manassas	7764	0.462762
Stonewall Rd	Standard Bicycle Lane	Prince am	City of Manassas	7794	1.32709
Stonewall Rd Ext	Standard Bicycle Lane	Prince am	City of Manassas	7772	0.127029
Stonewall Road	Bike Route Marking	Prince am	City of Manassas	7782	1.06953
Sudley Rd	Standard Bicycle Lane	Prince am	City of Manassas	7753	0.811038

Sudley Rd	Standard Bicycle Lane	Prince am	City of Manassas	7770	0.347679
Vicksburg Ln Ext	Shared Use Path	Prince am	City of Manassas	7792	0.251293
Wakeman Dr	Standard Bicycle Lane	Prince am	City of Manassas	7774	0.725827
Weems Rd	Bike Route Marking	Prince am	City of Manassas	7783	1.271015
West Ave	Bike Route Marking	Prince am	City of Manassas	7765	0.105713
10TH ST NW	Standard Bicycle Lane	District of mbia	DDOT	8627	0.767701
11TH ST NE	Standard Bicycle Lane	District of mbia	DDOT	8628	0.038742
11TH ST NW	Standard Bicycle Lane	District of mbia	DDOT	8630	0.274271
11TH ST SE	Standard Bicycle Lane	District of mbia	DDOT	8631	0.039948
11th St. Bridge Crossing	Shared Use Path	District of mbia	DDOT	8599	0.452185
12TH ST NW	Shared Use Path	District of mbia	DDOT	8633	0.019529
12TH ST/Buchanan St., NE	Standard Bicycle Lane	District of mbia	DDOT	8632	0.437181
13TH PL NW/Fort Stevens Dr NW	Standard Bicycle Lane	District of mbia	DDOT	8634	0.179777
14TH ST NW Columbia Rd, NW to Florida Ave., NW	Other	District of mbia	DDOT	8639	0.508638
14TH ST NW Eastern Ave., NW to Alaska Ave., NW	Protected Bicycle Lane	District of mbia	DDOT	8640	0.780844
15TH ST NW	Shared Use Path	District of mbia	DDOT	8644	0.081777
15TH ST NW Euclid St., NW to H St., NW	Protected Bicycle Lane	District of mbia	DDOT	8643	0.544356
15th St. NW, from E St., NW to Constitution Ave., NW	Protected Bicycle Lane	District of mbia	DDOT	7994	0.233828
15th St. NW, RW Pl. SW, Ohio Dr. SW, E Basin Dr. SW	Protected Bicycle Lane	District of mbia	DDOT	8005	1.013402

16th ST NW Eastern Ave., NW to Spring Rd, NW	Shared Use Path	District of mbia	DDOT	8620	3.788987
1ST ST SE	Standard Bicycle Lane	District of mbia	DDOT	8648	0.501133
20th and 21st Street, NW Protected Bike Lanes from Conn. Ave. to Constitution Ave., NW	Protected Bicycle Lane	District of mbia	DDOT	9266	0.073856
37th St. NW from Tunlaw Rd., NW to Reservoir Rd., NW	Standard Bicycle Lane	District of mbia	DDOT	8015	0.480974
4th St NE Cycletrack	Protected Bicycle Lane	District of mbia	DDOT	8618	0.311266
4TH ST NE from East Capitol St., NE to New York Ave., NE - Cycletrack	Protected Bicycle Lane	District of mbia	DDOT	8662	1.024312
4TH ST NW from Penn. Ave., NW to Madison Dr.,	Protected Bicycle Lane	District of mbia	DDOT	8664	0.165915
4TH St SE from East Capitol St., NE to M Street, SE	Protected Bicycle Lane	District of mbia	DDOT	8666	0.919315
4TH ST SW from Madison Drive, SW to P St., SW	Protected Bicycle Lane	District of mbia	DDOT	8667	1.022666
6TH ST NE from Brentwood Pkwy., NE to E. Cap. St., NE	Standard Bicycle Lane	District of mbia	DDOT	8673	1.295303
6TH ST NE from Mass Ave., NE to Maryland Ave., NE (Stanton Park segment)	Standard Bicycle Lane	District of mbia	DDOT	8674	0.066553
6TH ST NW from Rhode Island Ave., NW to Penn. Ave., NW	Standard Bicycle Lane	District of mbia	DDOT	8675	1.398826
7TH ST SW from I St., SW to Maine Ave., SW	Standard Bicycle Lane	District of mbia	DDOT	8677	0.063454

8th St. NE from Monroe St., NE to Franklin St., NE	Protected Bicycle Lane	District of mbia	DDOT	8014	0.467849
9TH ST NE Brentwood Pkwy to T St., NE	Standard Bicycle Lane	District of mbia	DDOT	8680	0.11647
9TH ST NE T St., NE to Mt. Olivet St., NE	Standard Bicycle Lane	District of mbia	DDOT	8679	0.217614
9th Street Bicycle Lane	Protected Bicycle Lane	District of mbia	DDOT	8642	1.698579
Alabama Avenue, SE from Burns Street to Martin Luther King Jr. Ave., SE	Standard Bicycle Lane	District of mbia	DDOT	9426	4.550594
Arboretum Bridge and Trail	Shared Use Path	Washingt	DDOT	6497	0.686811
Arizona Ave NW from Loughboro Rd to MacArthur Blvd., NW	Protected Bicycle Lane	District of mbia	DDOT	8007	0.743424
Arizona Avenue Connector Trail to the Capital Crescent Trail	Shared Use Path	District of mbia	DDOT	8684	0.113639
Arizona Avenue to Capital Crescent Trail	Shared Use Path	District of mbia	DDOT	8651	0.113639
Aspen Street NW Bicycle Facility from 16th Street to Georgia Ave., NW	Standard Bicycle Lane	District of mbia	DDOT	9186	0.494649
Benning Rd., NE Bicycle Facility from Oklahoma Ave NE to East Capitol Street SE	Protected Bicycle Lane	District of mbia	DDOT	8616	1.374564
Bicycle and Pedestrian Management Program	Bike Rck	BLANK	DDOT	3232	9.202627
BLADENSBURG RD NE	Protected Bicycle Lane	District of mbia	DDOT	8689	2.572519
BRANCH AVE SE from Southern	Standard Bicycle Lane	District of mbia	DDOT	8693	1.56915

Ave SE to Randle Circle SE					
Brentwood Parkway two-way Cycle track from Penn St., NE to 9th St., NE	Protected Bicycle Lane	District of mbia	DDOT	8002	0.323906
BRENTWOOD RD NE from Saratoga Ave to V St NE	Protected Bicycle Lane	District of mbia	DDOT	8694	0.437928
C ST NE Cycletrack between 17th St to 21st St NE	Protected Bicycle Lane	District of mbia	DDOT	8699	0.330293
C ST NE from 4th St to 6th St NE	Protected Bicycle Lane	District of mbia	DDOT	8698	0.229005
Capital Bikeshare Expansion	Bike Share	District of mbia	DDOT	8647	0.788644
Commodore Joshua Barney Dr Ne Sidepath	Shared Use Path	District of mbia	DDOT	7317	0.717008
CONNECTICUT AVE NW from R St NW to Chevy Chase Circle NW	Protected Bicycle Lane	District of mbia	DDOT	8704	4.835924
Connection To Marvin Gaye Trail from the Anacostia River Trail	Shared Use Path	District of mbia	DDOT	8837	0.283474
CONSTITUTION AVE NW from Penn. Ave., NW to Louisiana Ave., NW	Protected Bicycle Lane	District of mbia	DDOT	8706	0.373355
Crosstown (Irving St, NW and NE)	Protected Bicycle Lane	District of mbia	DDOT	7997	1.243698
Dalecarlia Pkwy Trail from Mass Ave., NW to Loughboro Rd., NW	Shared Use Path	District of mbia	DDOT	7462	1.459927
DIVISION AVE NE from Sheriff Rd NE to E Capitol St SE	Standard Bicycle Lane	District of mbia	DDOT	8709	1.014382

East Capitol Street Bridge Connector	Protected Bicycle Lane	District of mbia	DDOT	7322	0.388868
East Capitol Street Corridor Mobility & Safety Plan	Streetscape/Pedestrian Improvements	BLANK	DDOT	6315	1.820045
Eastern Ave	Standard Bicycle Lane	District of mbia	DDOT	7323	4.472805
First Street, SE	Protected Bicycle Lane	District of mbia	DDOT	8011	0.127353
FLORIDA AVE NE	Shared Use Path	District of mbia	DDOT	8719	0.653801
FLORIDA AVE NW	Shared Use Path	District of mbia	DDOT	8720	0.858404
FLORIDA AVE NW	Shared Use Path	District of mbia	DDOT	8721	0.409035
Florida Ave./NY Ave. NE Project	Bike Boulevards	District of mbia	DDOT	8003	0.311841
Fort Circle Parks Connector/Military Road, NW	Protected Bicycle Lane	District of mbia	DDOT	7329	1.075376
Fort Circle Planned Trails/Fort Davis Drive	Shared Use Path	District of mbia	DDOT	7463	1.231808
Fort Davis Dr and Texas Ave SE Trail	Shared Use Path	District of mbia	DDOT	8649	2.858831
Fort Lincoln Drive Connector Trail	Protected Bicycle Lane	District of mbia	DDOT	7332	0.73108
G ST NW from 17th Street NW to Rock Creek Trail	Protected Bicycle Lane	District of mbia	DDOT	8725	1.025189
Galloway Street NE Trail Improvements	Shared Use Path	Washingt	DDOT	6678	0.10746
Georgetown Waterfront Trail	Protected Bicycle Lane	District of mbia	DDOT	7338	0.109073
Hains Point Bridge	Shared Use Path	District of mbia	DDOT	8841	0.190663
IRVING ST NW	Protected Bicycle Lane	District of mbia	DDOT	8743	1.304626
K St and Water St NW Trail Connection	Shared Use Path	District of mbia	DDOT	6643	0.020253

K Street NE/NW from 1st St NE to 3rd St NW	Protected Bicycle Lane	District of mbia	DDOT	8006	0.500727
K Street NW from 3rd St NW to 4th St NW	Protected Bicycle Lane	District of mbia	DDOT	8013	0.053827
Key Bridge Connection To Capital Crescent Trail	Other	District of mbia	DDOT	7351	0.317524
Klingle Trail	Shared Use Path	District of mbia	DDOT	2806	0.313168
Klingle Trail	Shared Use Path	BLANK	DDOT	2806	0.339821
Klingle Valley Trail	Shared Use Path	District of mbia	DDOT	8609	0.339821
Long Bridge	Shared Use Path	District of mbia	DDOT	8623	0.959368
Long Bridge Pedestrian and Bicycle Connection	Pedestrian/Bicycle Bridge or Tunnel	District of mbia	DDOT	6807	0.959368
Louisiana Ave (national Mall-mbt Connector)	Shared Use Path	District of mbia	DDOT	7373	0.637493
M ST NW from 29th St NW to 34th St NW	Standard Bicycle Lane	District of mbia	DDOT	8757	0.517871
M St. SW/SE from 6th St SW to 11th St SE	Other	District of mbia	DDOT	8008	1.528771
Malcolm X Trail	Sidewalk	District of mbia	DDOT	7464	1.424578
MARYLAND AVE NE from C St NE to M St NE	Standard Bicycle Lane	District of mbia	DDOT	8763	1.722821
Mass Ave NW Sidepath Western Ave NW to R St NW	Shared Use Path	District of mbia	DDOT	8624	3.621136
MASSACHUSETTS AVE NW from Dupont Circle to N Capitol St NW	Protected Bicycle Lane	District of mbia	DDOT	8765	1.824777
MASSACHUSETTS AVE SE from Lincoln Park to Southern Ave SE	Protected Bicycle Lane	District of mbia	DDOT	8766	2.123775

Metropolitan Branch Trail	Shared Use Path	BLANK	DDOT	3228	5.649759
Metropolitan Branch Trail	Shared Use Path	District of mbia	DDOT	7367	4.712791
Metropolitan Branch Trail	Shared Use Path	District of mbia	DDOT	8838	0.783207
MICHIGAN AVE NE from South Dakota Ave NE to Eastern Ave NE	Shared Use Path	District of mbia	DDOT	8769	0.417652
MILITARY RD NW Nebraska Ave NW to 28th St NW	Shared Use Path	District of mbia	DDOT	8770	0.618501
MINNESOTA AVE NE Eastern Ave NE to Meade St NE	Standard Bicycle Lane	District of mbia	DDOT	8771	0.778184
MOUNT OLIVET RD NE from New York Ave NE to Bladensburg Rd NE	Protected Bicycle Lane	District of mbia	DDOT	8776	0.810068
NANNIE HELEN BURROUGHS AVE NE from Minnesota Ave NE to Gault Place NE	Protected Bicycle Lane	District of mbia	DDOT	8778	0.485551
NEBRASKA AVE NW from Oregon Ave NW to Wisconsin Ave NW	Shared Use Path	District of mbia	DDOT	8779	2.154201
NEBRASKA AVE NW Loughboro Rd NW to Rockwood Pkwy NW	Shared Use Path	District of mbia	DDOT	8780	0.262896
NEW HAMPSHIRE AVE NW from Dupont Circle NW to Washington Circle NW	Protected Bicycle Lane	District of mbia	DDOT	8783	0.530077
NEW HAMPSHIRE AVE NW from Park Rd	Standard Bicycle Lane	District of mbia	DDOT	8782	1.865718

NW to Kennedy St NE					
NEW JERSEY AVE NW	Protected Bicycle Lane	District of mbia	DDOT	8784	1.093181
New Jersey Ave SE from I St SE to M St SE	Other	District of mbia	DDOT	8010	0.201537
New Jersey Ave SE from M St SE to Tingey Square SE	Bike Boulevards	District of mbia	DDOT	8009	0.114345
New Mexico Ave NW from Tunlaw Rd to Lowell St NW	Protected Bicycle Lane	District of mbia	DDOT	7983	0.492727
New York Ave NE from Montana Ave NE to DC line	Shared Use Path	District of mbia	DDOT	8612	2.018644
New York Ave NE Improvements	Streetscape/Pedestrian Improvements	BLANK	DDOT	6230	3.907864
New York Ave Trail from MBT to Bladensburg Rd NE	Shared Use Path	District of mbia	DDOT	7441	1.677016
Oxon Cove Trail	Shared Use Path	District of mbia	DDOT	8608	0.388339
Oxon Run Trail	Shared Use Path	District of mbia	DDOT	8610	0.42139
Oxon Run Trail from 13th St to Southern Ave SE	Shared Use Path	District of mbia	DDOT	7446	2.258936
Oxon Run Trail Restoration	Shared Use Path	BLANK	DDOT	2780	0.643818
Oxon Run Trail Restoration	Shared Use Path	District of mbia	DDOT	<Null>	3.443592
P ST SW from 2nd St SW to S Capitol St SW	Standard Bicycle Lane	District of mbia	DDOT	8788	0.257236
Palisades Trolley Trail	Shared Use Path	District of mbia	DDOT	8602	2.279764
Pedestrian Bridge over Arizona Ave NW and Connecting Trail Rehabilitation	Pedestrian/Bicycle Bridge or Tunnel	BLANK	DDOT	6516	0.743424
PENNSYLVANIA AVE NW from M	Protected Bicycle Lane	District of mbia	DDOT	8790	1.34243

St NW to 15th St NW					
Pennsylvania Ave SE	Shared Use Path	District of mbia	DDOT	8613	0.304047
Pennsylvania Ave SE	Shared Use Path	District of mbia	DDOT	8614	0.210936
Pennsylvania Ave. NW	Protected Bicycle Lane	District of mbia	DDOT	7986	0.974379
Pennsylvania Ave. NW	Other	District of mbia	DDOT	7993	1.330552
Piney Branch Pkwy NW	Shared Use Path	District of mbia	DDOT	8607	0.832356
PINEY BRANCH RD NW Butternut St to Quackenbos St NW	Standard Bicycle Lane	District of mbia	DDOT	8791	0.54675
Potomac Ave., SW	Protected Bicycle Lane	District of mbia	DDOT	7985	0.10806
Potomac Ave., SW	Protected Bicycle Lane	District of mbia	DDOT	7987	0.091483
RIGGS RD NE	Protected Bicycle Lane	District of mbia	DDOT	8808	0.400056
RIGGS RD NE	Shared Use Path	District of mbia	DDOT	8809	0.458947
Roosevelt Bridge to Mt. Vernon Trail	Shared Use Path	Arlington	DDOT	8503	0.155467
S. Capitol Bridge Crossing	Shared Use Path	District of mbia	DDOT	8606	1.360522
Safety Improvements Citywide	Other	Washingt	DDOT	3212	6.702073
Shepherd Branch Trail (Firth Sterling Road SE and South Capitol Street SE to E Street SE)	Protected Bicycle Lane	District of mbia	DDOT	7402	3.407639
South Capitol Street Trail	Shared Use Path	BLANK	DDOT	6114	4.675702
South Capitol Street Trail	Shared Use Path	District of mbia	DDOT	7404	3.331763
South Captiol Trail Extension	Shared Use Path	District of mbia	DDOT	7405	0.382163
SOUTHERN AVE SE	Protected Bicycle Lane	District of mbia	DDOT	8820	1.776719
SOUTHERN AVE SE	Protected Bicycle Lane	District of mbia	DDOT	8821	1.477263

Suitland Parkway Trail	Shared Use Path	District of mbia	DDOT	8652	1.085667
Texas Ave SE	Shared Use Path	District of mbia	DDOT	8600	0.783805
Transit Hubs	Bike/Scooter Corral	District of mbia	DDOT	8653	1.168376
Tunlaw Rd. NW	Bike Boulevards	District of mbia	DDOT	8016	0.30788
Tunlaw Rd. NW from New Mexico to 37th St	Protected Bicycle Lane	District of mbia	DDOT	7984	0.266382
VERMONT AVE NW	Standard Bicycle Lane	District of mbia	DDOT	8829	0.635595
Virginia Ave SE between 2nd Street SE and 9th Street SE	Protected Bicycle Lane	District of mbia	DDOT	7416	0.791869
Virginia Ave Trail from 9th St SE to 11th St SE	Shared Use Path	District of mbia	DDOT	7460	0.116426
Virginia Ave. NW	Protected Bicycle Lane	District of mbia	DDOT	8000	1.082032
Virginia Ave. NW from Rock Creek/Potomac Pkwy to Constitution Ave NW	Protected Bicycle Lane	District of mbia	DDOT	7991	0.090047
Walter Reed Main Drive, NW Bicycle Facility from 16th Street to Georgia Ave NW	Standard Bicycle Lane	District of mbia	DDOT	8604	0.6476
Warder St. NW/7th St. NW from Columbia Rd to New Hampshire Ave NW	Protected Bicycle Lane	District of mbia	DDOT	7999	0.170641
West Virginia Ave. NE from Mt Olivet Rd to K St NE	Protected Bicycle Lane	District of mbia	DDOT	8004	0.756888
West Virginia Ave. NE from New York Ave to Mt. Olivet Rd NE	Protected Bicycle Lane	District of mbia	DDOT	8001	0.599932

66 Parallel Trail	Shared Use Path	Fairfax	Fairfax County	7320	37.156874
Annandale Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12926	3.789986
Arlington Blvd Trail	Streetscape/Pedestrian Improvements	Fairfax nty	Fairfax County	11366	8.593092
Arlington Blvd Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	11686	0.486178
Backlick Run Stream ValleyTrail	Shared Use Path	Fairfax nty	Fairfax County	13006	3.784196
Backlick Trail	Shared Use Path	Fairfax nty	Fairfax County	11946	4.945912
Baron Cameron Trail	Shared Use Path	Fairfax nty	Fairfax County	12006	0.364859
Beacon Hill Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13166	0.7317
Beauregard Street Trail	Shared Use Path	Fairfax nty	Fairfax County	12986	0.265195
Beulah Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12426	0.977583
Braddock Rd - Rt 29 Connector Trail	Shared Use Path	Fairfax nty	Fairfax County	12846	0.70123
Braddock Road Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	12726	2.502733
Braddock Road Trail Phase 3	Shared Use Path	Fairfax nty	Fairfax County	12746	1.290126
Braddock Road Trail Phase 4	Shared Use Path	Fairfax nty	Fairfax County	12767	2.641425
Braddock Trail	Shared Use Path	Fairfax nty	Fairfax County	11406	6.266172
Burke Lake Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13387	1.226964
Centreville Rd Trail	Shared Use Path	Fairfax nty	Fairfax County	11986	2.723105
Centreville to Clifton Trail	Shared Use Path	Fairfax nty	Fairfax County	13407	0.721557
Clark Crossing Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12446	0.870627
Clifton Road Trail Phase 1	Shared Use Path	Fairfax nty	Fairfax County	13386	4.575194
Clifton Road Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	13406	3.429932
Collingwood Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13206	1.842837

Columbia Pike Trail	Shared Use Path	Fairfax nty	Fairfax County	11906	2.909487
Colvin Run Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12326	0.719364
Commerce Street Trail	Shared Use Path	Fairfax nty	Fairfax County	13026	1.305152
Compton Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12807	2.508893
Cross County Trail	Shared Use Path	Fairfax nty	Fairfax County	11426	20.205149
Fair Lakes Circle Trail	Shared Use Path	Fairfax nty	Fairfax County	11766	0.599079
Fairfax County Parkway to Rolling Road Connector Trail	Shared Use Path	Fairfax nty	Fairfax County	13366	3.184155
Fairfax County Parkway Trail	Shared Use Path	Fairfax nty	Fairfax County	11446	38.092094
Fox Mill Road Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	12706	3.261753
Fox Mill Trail	Shared Use Path	Fairfax nty	Fairfax County	11466	1.062764
Franconia Trail	Shared Use Path	Fairfax nty	Fairfax County	12086	4.351626
Franconia-Springfield Parkway Trail	Shared Use Path	Fairfax nty	Fairfax County	13066	3.666059
Frying Pan Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12686	1.876345
Furnace Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13266	2.723836
Gallows Road Trail	Shared Use Path	Fairfax nty	Fairfax County	11486	2.285988
Gallows Road Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	12946	2.037316
Georgetown Pike Trail	Shared Use Path	Fairfax nty	Fairfax County	12286	8.619235
Grist Mill Trail Phase 1	Shared Use Path	Fairfax nty	Fairfax County	11506	0.896163
Grist Mill Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	11526	5.441171
Guinea Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13487	3.886605
Hampton Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13368	2.175992
Hancock Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12626	1.719469

Henderson Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13367	1.974473
Hooes Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13346	3.237598
Hunter Mill Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12486	7.320228
Huntington Trail	Shared Use Path	Fairfax nty	Fairfax County	12126	2.683337
I-495 Trail	Shared Use Path	Fairfax nty	Fairfax County	11866	21.070809
Idylwood Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12586	5.17763
International Drive Trail	Shared Use Path	Fairfax nty	Fairfax County	12386	0.967999
Jeff Todd Trail	Shared Use Path	Fairfax nty	Fairfax County	11566	2.6361
Kirby Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12606	6.523302
Lawyers Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12526	5.279343
Lee Jackson Memorial Hwy Trail	Shared Use Path	Fairfax nty	Fairfax County	11786	8.556383
Lewinsville Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12466	4.950448
Lincolnia Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12966	0.524614
Little River Turnpike Trail	Shared Use Path	Fairfax nty	Fairfax County	11886	7.670739
Loisdale Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13046	0.573325
Manchester Blvd Trail	Shared Use Path	Fairfax nty	Fairfax County	13086	0.653907
Mason Neck Trail	Shared Use Path	Fairfax nty	Fairfax County	13286	2.90351
Mount Vernon Memorial Highway Trail	Shared Use Path	Fairfax nty	Fairfax County	13226	0.956055
Mount Vernon Trail	Shared Use Path	Fairfax nty	Fairfax County	11586	11.273959
North Kings Hwy Trail	Shared Use Path	Fairfax nty	Fairfax County	13526	1.149489
Old Colechester Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13306	0.869102
Old Dominion Trail	Shared Use Path	Fairfax nty	Fairfax County	11926	10.435486
Old Keene Mill Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13126	4.447447

Ox Road Trail	Shared Use Path	Fairfax nty	Fairfax County	11606	1.092294
Pleasant Valley Trail	Shared Use Path	Fairfax nty	Fairfax County	11966	3.028269
Poplar Tree Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12786	0.866261
Potomac Heritage National Scenic Trail Section 1	Shared Use Path	Fairfax nty	Fairfax County	13246	3.927234
Prosperity Avenue Trail	Shared Use Path	Fairfax nty	Fairfax County	13446	3.527866
Reston Parkway Trail	Shared Use Path	Fairfax nty	Fairfax County	11626	1.518767
Richmond Highway Trail	Shared Use Path	Fairfax nty	Fairfax County	11646	9.975652
Roberts Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13466	0.252202
Rolling Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13106	3.520658
Route 1 to Laurel Hill Trail	Shared Use Path	Fairfax nty	Fairfax County	13326	1.102002
Route 1 Trail	Shared Use Path	Fairfax nty	Fairfax County	11318	3.426659
Route 123 Trail	Shared Use Path	Fairfax nty	Fairfax County	11846	11.29616
Route 28 Trail	Shared Use Path	Fairfax nty	Fairfax County	12007	1.140112
Route 29 Trail Phase 1	Shared Use Path	Fairfax nty	Fairfax County	12866	3.811013
Route 29 Trail Phase 2	Shared Use Path	Fairfax nty	Fairfax County	12886	7.557619
Route 7 Trail	Shared Use Path	Fairfax nty	Fairfax County	11706	17.928005
Sherwood Hall Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13186	0.56795
Shirley Gate Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13427	0.840111
Shreve Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12906	1.759609
Sideburn Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13467	1.673861
South Count East-West Trail Phase 1	Shared Use Path	Fairfax nty	Fairfax County	11726	1.682373
South County East West Trail	Shared Use Path	Fairfax	Fairfax County	7453	33.117879

South Kings Hwy Trail	Shared Use Path	Fairfax nty	Fairfax County	12026	2.045417
South Van Dorn Street Trail	Shared Use Path	Fairfax nty	Fairfax County	13146	3.505531
Spring Hill Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12366	1.457438
Stonecroft Boulevard Trail	Shared Use Path	Fairfax nty	Fairfax County	12766	1.725054
Stringfellow Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12806	0.130927
Telegraph Rd Trail	Shared Use Path	Fairfax nty	Fairfax County	11746	3.567926
Thompson Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12826	0.974206
Towlston Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12346	2.671397
Trap Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12406	0.31265
Vaden Drive Trail	Shared Use Path	Fairfax nty	Fairfax County	11346	0.204957
Vale Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12506	5.435058
W&OD Railroad Trail	Shared Use Path	Fairfax nty	Fairfax County	12546	12.912808
Walker Road Trail	Shared Use Path	Fairfax nty	Fairfax County	12306	1.839222
Waples Mill Road Trail	Shared Use Path	Fairfax nty	Fairfax County	13426	0.350702
West Ox Road Trail	Shared Use Path	Fairfax nty	Fairfax County	11326	1.166157
Westmoreland Street Trail	Shared Use Path	Fairfax nty	Fairfax County	12646	4.729097
Zion Drive Trail	Shared Use Path	Fairfax nty	Fairfax County	13468	1.819013
Ballenger Creek	Shared Use Path	Frederick	Frederick County	7610	0.334894
Ballenger Creek	Shared Use Path	Frederick	Frederick County	7616	0.838044
Ballenger Creek	Protected Bicycle Lane	Frederick	Frederick County	7619	0.233529
Ballenger Creek	Shared Use Path	Frederick	Frederick County	7620	0.131434
Brunswick Crossing	Shared Use Path	Frederick	Frederick County	7711	1.366244
Brunswick Crossing	Shared Use Path	Frederick	Frederick County	7712	0.743157
Bush Creek	Shared Use Path	Frederick	Frederick County	7703	3.283679

Bush Creek	Shared Use Path	Frederick	Frederick County	7704	4.993031
Emmitsburg Area Trails	Shared Use Path	Frederick	Frederick County	7696	1.348936
Frederick and Pennsylvania Line RR Trail	Shared Use Path	Frederick	Frederick County	7575	0.141941
Frederick and Pennsylvania Line RR Trail	Shared Use Path	Frederick	Frederick County	7586	3.464292
Frederick and Pennsylvania Line RR Trail	Shared Use Path	Frederick	Frederick County	7614	1.350056
Frederick and Pennsylvania Line RR Trail	Shared Use Path	Frederick	Frederick County	7617	2.089208
Frederick Scenic Trail	Shared Use Path	Frederick	Frederick County	7613	1.599621
Frederick Scenic Trail	Shared Use Path	Frederick	Frederick County	7618	1.429197
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7583	5.889004
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7584	2.243469
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7585	0.821477
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7589	2.373472
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7590	0.4638
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7597	0.406702
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7611	1.555373
H&F Trolley Trail	Shared Use Path	Frederick	Frederick County	7612	1.952828
I-270 Transitway	Shared Use Path	Frederick	Frederick County	7593	3.47368
I-270 Transitway	Shared Use Path	Frederick	Frederick County	7594	2.696151
I-270 Transitway	Shared Use Path	Frederick	Frederick County	7595	4.575418
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7601	0.403995
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7602	0.633809
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7603	0.187731

Middletown Greenway	Shared Use Path	Frederick	Frederick County	7604	0.062972
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7605	0.083567
Middletown Greenway	Sidewalk	Frederick	Frederick County	7606	0.322415
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7607	0.10164
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7608	0.053781
Middletown Greenway	Shared Use Path	Frederick	Frederick County	7609	0.814595
Monocacy Blvd	Sidewalk	Frederick	Frederick County	7579	2.942278
Monocacy River	Shared Use Path	Frederick	Frederick County	7706	1.923815
Mount Airy Trail	Shared Use Path	Frederick	Frederick County	7717	1.10873
New Design Road Protected Bike Lanes	Protected Bicycle Lane	Frederick	Frederick County	7622	2.754954
New Design Road Side Path	Shared Use Path	Frederick	Frederick County	7621	8.517822
Sugarloaf - Little Bennet Trail	Shared Use Path	Frederick	Frederick County	7705	1.528594
Sugarloaf - Little Bennet Trail	Shared Use Path	Frederick	Frederick County	7716	1.683045
Town Of Middletown Greenway	Shared Use Path	Frederick	Frederick County	7599	0.726854
Town Of Middletown Greenway	Standard Bicycle Lane	Frederick	Frederick County	7600	0.122443
Arcola Boulevard	Shared Use Path	Loudoun	Loudoun County	7644	1.736073
Arlington Oaks Drive Bicycle lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8391	0.467597
Ashburn Farm Parkway Shared Use Path Widening	Shared Use Path	Loudoun	Loudoun County	7668	1.060037
Ashburn Road	Shared Use Path	Loudoun	Loudoun County	8367	0.434915
Ashburn Road Bike Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8368	0.94644

Ashburn Road Bike Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8431	0.261622
Ashburn Road Shared Use Path	Shared Use Path	Loudoun	Loudoun County	8430	0.406062
Ashburn Village Boulevard Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8324	4.490973
Atlantic Boulevard Shared Use Path	Shared Use Path	Loudoun	Loudoun County	7653	1.121801
Atwater Drive Bike Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8392	0.299675
Augusta Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8376	0.73936
Augusta Drive Bike Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8338	0.086506
Barrister Street Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8428	0.204328
Barrister Street/Bullpen Drive	Standard Bicycle Lane	Loudoun	Loudoun County	8342	0.688259
Bartholomew Fair Drive Bicycle Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8397	0.54982
Belfort Park Drive	Standard Bicycle Lane	Loudoun	Loudoun County	8352	0.285128
Belmont Ridge Road Shared Use Path	Shared Use Path	Loudoun	Loudoun County	7645	1.611724
Benedict Drive Bicycle Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8398	0.201754
Berlin Turnpike (VA Route 287)	Shared Use Path	Loudoun	Loudoun County	7663	12.02811
Bles Park Drive	Standard Bicycle Lane	Loudoun	Loudoun County	8438	0.157096
Braddock Road Shared Use Path	Shared Use Path	Loudoun	Loudoun County	7678	1.335565
Bridgefield Way/Research Place Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8407	0.331733
Broadmore Drive Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8419	0.205885

Broderick Drive Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8413	0.453497
Cascades Parkway Shared Use Path	Shared Use Path	Loudoun	Loudoun County	7654	0.430865
Cedar Ridge Blvd	Buffered Bicycle Lane	Loudoun	Loudoun County	8379	1.70246
Centergate Drive Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8343	0.42596
Charles Town Pike Shared Use path	Shared Use Path	Loudoun	Loudoun County	7662	12.699959
Christiana Drive Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8411	0.395787
Church Road Bike Lane and Sidewalk	Buffered Bicycle Lane	Loudoun	Loudoun County	8421	0.226919
Circle Drive Bike Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8436	0.644072
Claude Moore Drive Sidewalk	Shared Use Path	Loudoun	Loudoun County	8340	0.240565
Cromwell Road Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8385	0.255349
Croson Lane Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7669	1.307065
Crossroads Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8427	0.805527
Davis Drive	Shared Use Path	Loudoun	Loudoun County	8332	0.970715
Davis Drive Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	8439	1.032637
Deerfield Avenue Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8404	0.250801
Defender Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8395	0.209389
Demott Drive Bicycle Lanes	Shared Use Path	Loudoun	Loudoun County	8425	0.730014
Destiny Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8371	1.10419
Devin Shafron Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8364	0.304848
Dresden Street Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8414	0.244639
Dulles Center Boulevard Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8381	0.813283

and Pedestrian Improvements					
East Maple Avenue Bicycle and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8420	0.480275
Eastgate View Drive	Buffered Bicycle Lane	Loudoun	Loudoun County	8339	0.617041
Eastgate View Drive Bicycle and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8396	0.513451
Edgewater Street Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8335	0.499885
Edgewater Street Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8336	1.820138
Everfield Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8412	2.659857
Fincastle Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8422	0.431791
Glenn Drive Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8331	0.63274
Grassland Grove Drive (Route 3394)	Standard Bicycle Lane	Loudoun	Loudoun County	8347	3.02937
Haleybird Drive Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8401	0.338123
Hansen Park Shared Use Path	Shared Use Path	Loudoun	Loudoun County	7647	0.808134
Hardwood Forest Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8423	0.292009
Harry Byrd Highway	Shared Use Path	Loudoun	Loudoun County	7655	2.98126

Hay Road Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8355	1.330879
Innovation Avenue Bicycle Lanes and Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	8349	0.637262
James Monroe Highway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7649	10.393201
James Monroe Highway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7661	2.584909
John Mosby Highway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7673	9.788228
John Mosby Highway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7674	0.803294
Ladbrook Drive Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8426	0.728856
Lansdowne Boulevard Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8406	0.380715
Leesburg Bypass Pedestrian Facility	Shared Use Path	Loudoun	Loudoun County	7660	0.80892
Lockridge Road Bicycle Lanes and Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7648	1.024693
Lockridge Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8360	0.193954
Loudoun County Parkway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7670	9.926599
Loudoun County Parkway	Shared Use Path	Loudoun	Loudoun County	7671	3.689563

Pedestrian Facilities					
Loudoun Reserve Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8429	0.4576
Loudoun Reserve Drive Bicycle Lanes and Pedestrian Facilities.	Standard Bicycle Lane	Loudoun	Loudoun County	8388	0.800788
Loudoun Station Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8403	0.317976
Lovettsville Road Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7650	5.756167
Magnolia Drive Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8416	0.474631
Marblehead Drive Bicycle and Pedestrian Improvements	Buffered Bicycle Lane	Loudoun	Loudoun County	8375	1.154052
Middlefield Drive Bicycle Lane and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8387	0.610475
Millstream Drive Bicycle Lanes and Pedestrian Improvements	Buffered Bicycle Lane	Loudoun	Loudoun County	8373	1.195065
Mineral Springs Circle Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8380	0.307803
Mooreview Parkway Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8337	0.143698
Mooreview Parkway Bicycle Lanes and	Standard Bicycle Lane	Loudoun	Loudoun County	8369	0.766144

Pedestrian Facilities					
Mooreview Parkway Bicylcle Lanes and Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7652	0.605939
Moran Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8351	0.674383
North Sterling Boulevard Bicyle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8330	1.697321
Pinebrook Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8382	0.211733
Pinebrook Road Bicyle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8383	0.331716
Pleasant Valley Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8350	0.972288
Poland Rd (Route 742) Bicycle Lanes	Buffered Bicycle Lane	Loudoun	Loudoun County	8365	0.439361
Poland Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8323	1.203111
Poland Road Extension to Defender Drive	Standard Bicycle Lane	Loudoun	Loudoun County	8322	0.424931
Portsmouth Boulevard Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8374	0.727007
Prentice Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8361	0.723261

Prentice Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8362	1.05292
Prentice Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8363	0.480107
Red Rum Drive Bicycle Lanes and Pedestrian Improvements	Buffered Bicycle Lane	Loudoun	Loudoun County	8415	0.600439
Ridgetop Circle Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8399	1.32852
River Bank Street Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8424	0.369617
River Creek Parkway	Buffered Bicycle Lane	Loudoun	Loudoun County	8326	0.194525
River Creek Parkway Bicycle Lanes and Pedestrian Faciliities	Standard Bicycle Lane	Loudoun	Loudoun County	8370	0.304537
River Creek Parkway Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8325	0.54526
River Creek Parkway Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8327	0.308438
Riverside Parkway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7666	0.31257
Riverside Parkway Pedestrian Facilities	Shared Use Path	Loudoun	Loudoun County	7667	0.69459
Route 9	Shared Use Path	Loudoun	Loudoun County	7675	0.345592
Saulty Drive Bicycle Lanes	Standard Bicycle Lane	Loudoun	Loudoun County	8409	0.352434

and Pedestrian Facilities					
Seneca Ridge Drive Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8377	0.231753
Shaw Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8353	0.174833
Shaw Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8354	0.608352
Shellhorn Road Bicycle Lanes and pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8328	0.550301
Shellhorn Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8356	0.235498
Shellhorn Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8357	1.147107
Shellhorn Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8358	1.015477
Shellhorn Road Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8433	0.131744
Snickersville Turnpike Bicycle Lanes	Shared Use Path	Loudoun	Loudoun County	7659	1.969747
South Cottage Road Bicyle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8378	0.787929
South Fillmore Avenue Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8393	0.22844

South Fillmore Avenue Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8394	0.347426
South Sterling Boulevard Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8432	0.255393
South Sterling Boulevard Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8437	0.910164
South Sterling Boulevard Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8329	0.682171
State Street Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8402	0.401754
Stone Springs Boulevard Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8372	0.671081
Stone Springs Boulevard Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8384	0.378328
Summerall Drive Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8390	0.543507
Supreme Drive Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8389	0.13011
Sycolin Creek Connector Bicycle and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8408	1.7763
Tall Cedars Parkway Bicycle	Shared Use Path	Loudoun	Loudoun County	7672	0.268297

Lanes and Pedestrian Improvements					
Tall Cedars Parkway Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8334	1.338167
Thumb Drive Bicycle Lanes and Sidewalk	Standard Bicycle Lane	Loudoun	Loudoun County	8344	0.389714
Town of Lovettsville - East Broad Way	Streetscape/Pedestrian Improvements	Loudoun	Loudoun County	7677	0.590864
Trailhead Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8346	1.139204
Trailhead Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8435	0.812166
Trailhead Drive Bicycle Lanes and Pedestrian Facilliites	Standard Bicycle Lane	Loudoun	Loudoun County	8434	0.616937
Trailhead Drive Bicycle Lanes and Pedestrian Improvements	Standard Bicycle Lane	Loudoun	Loudoun County	8345	1.896956
Tripleseven Road Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8386	0.586896
Victoria Station Drive Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8417	0.514774
W & OD West Extension	Shared Use Path	Loudoun	Loudoun County	7665	8.584408
Whites Ferry Connector	Shared Use Path	Loudoun	Loudoun County	7664	4.667381
Windmill Drive Bicycle Lanes and Pedestrian Facilities	Standard Bicycle Lane	Loudoun	Loudoun County	8410	0.931988
Woodridge Parkway Bicycle	Buffered Bicycle Lane	Loudoun	Loudoun County	8405	0.920046

Lanes and Pedestrian Improvements					
Woodshire Drive Bicycle Lanes and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8400	0.284092
Wynridge Drive Bicycle Lane and Pedestrian Facilities	Buffered Bicycle Lane	Loudoun	Loudoun County	8341	0.581291
Jingle Connector	Shared Use Path	Montgom	Maryland-National Capital Park and Planning Commission	8314	0.18196
Magruder Branch Trail Extension	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8626	0.634819
Matthew Henson to Poplar Run	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8636	0.636726
Matthew Henson Trail Connector	Shared Use Path	Montgom	Maryland-National Capital Park and Planning Commission	7529	0.192461
Muddy Branch Trail	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8635	1.601303
North Branch Lakeside Renovation	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8637	0.990813
North Branch Trail-ICC Connector	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8625	0.260693
Ovid Hazen Wells to Damascus	Shared Use Path	Montgom County	Maryland-National Capital Park	8629	1.615791

			and Planning Commission		
Piedmont Crossing Local Park Trail	Shared Use Path	Montgom	Maryland-National Capital Park and Planning Commission	8094	0.059823
Powerline Trail	Shared Use Path	Montgom	Maryland-National Capital Park and Planning Commission	8621	0.438202
Wheaton Through Connector to Poplar Run	Shared Use Path	Montgom County	Maryland-National Capital Park and Planning Commission	8638	1.667499
Nice/Middleton Bridge Bike/Ped Access	Shared Use Path	Charles	MDOT/Maryland Transportation Authority	8868	1.962291
16th St (MD 390)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8124	0.334677
16th St (MD 390)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8203	0.758952
Arliss St (MD 594-D)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8225	0.553145
Bradley Blvd (MD 191)	Standard Bicycle Lane	Montgom	MDOT/State Highway Administration	8105	1.142987
Bradley Blvd (MD 191)	Shared Use Path	Montgom	MDOT/State Highway Administration	8116	1.132431
Bradley Blvd (MD 191)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8118	0.45791
Bradley Ln (MD 191)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8282	0.052878

Burlington Ave (MD 410)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8087	0.339441
Capitol View Ave (MD 192)	Shared Use Path	Montgom	MDOT/State Highway Administration	8197	1.060361
Clarksburg Rd (MD 121)	Standard Bicycle Lane	Montgom	MDOT/State Highway Administration	8247	0.359157
Clarksburg Rd (MD 121)	Shared Use Path	Montgom	MDOT/State Highway Administration	8307	0.354736
Clopper Rd (MD 117)	Shared Use Path	Montgom	MDOT/State Highway Administration	7682	1.211694
Colesville Rd (MD 384)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8102	0.155282
Colesville Rd (MD 384)	Shared Use Path	Montgom	MDOT/State Highway Administration	8115	0.096469
Colesville Rd (MD 384)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8128	0.305517
Connecticut Ave (MD 185)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8182	0.330616
Connecticut Ave (MD 185)	Shared Use Path	Montgom	MDOT/State Highway Administration	8221	0.022601
Connecticut Ave (MD 185)	Shared Use Path	Montgom	MDOT/State Highway Administration	8231	0.272521
Connecticut Ave (MD 185)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8254	0.53598

Connecticut Ave (MD 185)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8284	0.146207
East West Hwy (MD 410)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8136	0.804995
East West Hwy (MD 410)	Shared Use Path	Montgom	MDOT/State Highway Administration	8311	0.348869
Falls Rd (MD 189)	Shared Use Path	Montgom	MDOT/State Highway Administration	7688	1.135878
Falls Rd (MD 189)	Shared Use Path	Montgom	MDOT/State Highway Administration	8058	3.817534
Flower Ave (MD 787)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8226	0.380278
Forest Glen Rd (MD 192)	Shared Use Path	Montgom	MDOT/State Highway Administration	8268	0.068699
Frederick Ave (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	7679	3.260324
Frederick Rd (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	8093	0.70069
Frederick Rd (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	8244	0.525751
Frederick Rd (MD 355)	Bikeable Shoulders	Montgom	MDOT/State Highway Administration	8298	0.536783
Frederick Rd Sidepath (Stringtown Rd to North	Shared Use Path	Montgom	MDOT/State Highway Administration	8039	2.368505

Germantown Greenway Trail)					
Georgia Ave (MD 97)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8202	0.464946
Georgia Ave (MD 97)	Shared Use Path	Montgom	MDOT/State Highway Administration	8292	0.247105
Germantown Rd (MD 118)	Shared Use Path	Montgom	MDOT/State Highway Administration	8215	1.103353
Germantown Rd (MD 118)	Shared Use Path	Montgom	MDOT/State Highway Administration	8259	0.133253
Goldsboro Rd (MD 614)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8110	2.123688
Great Seneca Hwy (MD 119)	Shared Use Path	Montgom	MDOT/State Highway Administration	8106	0.027307
Indian Head Highway Sidewalk Construction	Streetscape/Pedestrian Improvements	Charles	MDOT/State Highway Administration	8864	0.358037
Indian Head Rail Trail Path Connection	Shared Use Path	Charles	MDOT/State Highway Administration	8865	0.742177
Knowles Ave (MD 547)	Shared Use Path	Montgom	MDOT/State Highway Administration	8232	0.416172
La Plata Sidewalk on US 301	Streetscape/Pedestrian Improvements	Charles	MDOT/State Highway Administration	8860	5.726558
Layhill Rd (MD 182)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8220	0.232411
Main St (MD 108)	Shared Use Path	Montgom	MDOT/State Highway	8236	0.298193

			Administration		
Main St (MD 108)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8296	0.220914
MD 5 Bike/Ped Treatments	Shared Use Path	Charles	MDOT/State Highway Administration	8863	0.13369
MD 6 Bike/Ped Treatments Over Zekiah Swamp	Shared Use Path	Charles	MDOT/State Highway Administration	8862	0.108734
Metropolitan Ave (MD 192)	Shared Use Path	Montgom	MDOT/State Highway Administration	8290	0.151139
Midcounty Hwy (MD 124)	Shared Use Path	Montgom	MDOT/State Highway Administration	7683	4.026118
Mitchell Road Intersection Treatments	Pedestrian Intersection Improvement	Charles	MDOT/State Highway Administration	8861	0.016026
Montgomery Ave Separated Bike Lanes (Wisconsin Ave to East West Hwy)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8027	0.445087
Montgomery Village Ave (MD 124)	Shared Use Path	Montgom	MDOT/State Highway Administration	7680	2.645819
Muncaster Mill Rd (MD 115)	Shared Use Path	Montgom	MDOT/State Highway Administration	7690	0.659741
New Hampshire Ave (MD 650)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8189	0.417252
New Hampshire Ave (MD 650)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8218	0.526664
New Hampshire Ave (MD 650)	Shared Use Path	Montgom	MDOT/State Highway	8248	0.079185

			Administration		
New Hampshire Ave (MD 650)	Shared Use Path	Montgom	MDOT/State Highway Administration	8264	0.461881
New Hampshire Ave (MD 650)	Shared Use Path	Montgom	MDOT/State Highway Administration	8297	0.451466
New Hampshire Ave (MD 650)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8299	0.155745
Old Georgetown Rd (MD 187)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8103	0.298983
Old Georgetown Rd (MD 187)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8143	0.173751
Old Georgetown Rd (MD 187)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8158	0.297883
Olney-Sandy Spring Rd (MD 108)	Shared Use Path	Montgom	MDOT/State Highway Administration	8180	1.219725
Piney Branch Rd (MD 320)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8206	0.237429
Piney Branch Rd (MD 320)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8227	0.475565
Piney Branch Rd (MD 320)	Shared Use Path	Montgom	MDOT/State Highway Administration	8253	0.505468
Piney Branch Rd (MD 320)	Shared Use Path	Montgom	MDOT/State Highway Administration	8275	0.224631
Piney Branch Rd Separated Bike Lanes (Flower	Protected Bicycle Lane	Montgom	MDOT/State Highway	8053	0.018981

Ave to University Blvd)			Administration		
Plyers Mill Rd (MD 192)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8257	0.311345
Quince Orchard Rd (MD 124)	Shared Use Path	Montgom	MDOT/State Highway Administration	7681	2.298061
Ridge Rd (MD 27)	Shared Use Path	Montgom	MDOT/State Highway Administration	8195	0.638866
Ridge Rd (MD 27)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8196	0.26202
Ridge Rd (MD 27)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8280	0.344708
River Rd (MD 190)	Shared Use Path	Montgom	MDOT/State Highway Administration	8193	0.194303
Rockville Pike (MD 355)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	7695	1.723753
Rockville Pike (MD 355)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8073	1.388619
Rockville Pike (MD 355)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8129	0.501722
Rockville Pike (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	8187	0.728841
Rockville Pike (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	8192	0.307086
Rockville Pike (MD 355)	Shared Use Path	Montgom	MDOT/State Highway	8262	1.130434

			Administration		
Rockville Pike (MD 355)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8266	0.105016
Silver Spring Green Trail Sidepath (Cedar St to Sligo Creek Pkwy)	Shared Use Path	Montgom	MDOT/State Highway Administration	8026	0.684602
University Blvd (MD 193)	Shared Use Path	Montgom	MDOT/State Highway Administration	8067	0.702095
University Blvd (MD 193)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8080	0.311739
University Blvd (MD 193)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8112	0.214716
University Blvd (MD 193)	Shared Use Path	Montgom	MDOT/State Highway Administration	8199	0.190256
University Blvd (MD 193)	Protected Bicycle Lane	Montgom	MDOT/State Highway Administration	8207	0.635772
Waldorf/White Plains Sidewalk on US 301	Streetscape/Pedestrian Improvements	Charles	MDOT/State Highway Administration	8859	12.991821
Wisconsin Ave (MD 355)	Shared Use Path	Montgom	MDOT/State Highway Administration	8159	0.071
Woodfield Rd (MD 124)	Shared Use Path	Montgom	MDOT/State Highway Administration	8181	0.296871
2nd Ave	Bike Route Marking	Montgom	Montgomery County	8078	0.473339
2nd Ave / Wayne Ave	Protected Bicycle Lane	Montgom	Montgomery County	8152	0.314477
A-251	Shared Use Path	Montgom	Montgomery County	7546	0.728449

Adrian St	Bike Route Marking	Montgom	Montgomery County	8265	0.80164
Aircraft Dr	Protected Bicycle Lane	Montgom	Montgomery County	7523	0.123866
Aircraft Dr	Protected Bicycle Lane	Montgom	Montgomery County	8250	0.166391
Alton Pkwy	Bike Route Marking	Montgom	Montgomery County	8079	0.593642
Anne St	Bike Route Marking	Montgom	Montgomery County	8066	0.305654
Appomattox Ave	Protected Bicycle Lane	Montgom	Montgomery County	8216	0.790382
Arlington Rd Separated Bike Lanes (Old Georgetown Rd to Bradley Blvd)	Protected Bicycle Lane	Montgom	Montgomery County	8038	0.657988
Aspen Hill Rd	Protected Bicycle Lane	Montgom	Montgomery County	8190	0.284849
Aspen Hill Rd	Bike Route Marking	Montgom	Montgomery County	8316	0.0264
Avery Rd	Shared Use Path	Montgom	Montgomery County	7686	1.181494
Baltimore Ave	Bike Route Marking	Montgom	Montgomery County	8313	0.003533
Battery Ln	Protected Bicycle Lane	Montgom	Montgomery County	8137	0.321377
Belward Campus Dr	Protected Bicycle Lane	Montgom	Montgomery County	8125	0.750674
Bethesda Trolley Trail	Buffered Bicycle Lane	Montgom	Montgomery County	7485	0.074463
Bethesda Trolley Trail	Shared Use Path	Montgom	Montgomery County	7541	0.232456
Blackwell Rd	Protected Bicycle Lane	Montgom	Montgomery County	8090	2.004649
Blackwell Rd	Protected Bicycle Lane	Montgom	Montgomery County	8148	0.194907
Blueridge Ave	Protected Bicycle Lane	Montgom	Montgomery County	8098	0.759624
Bowie Mill Rd	Shared Use Path	Montgom	Montgomery County	8208	3.347677
Briggs Rd	Shared Use Path	Montgom	Montgomery County	8179	0.344674
Broadbirch Dr Separated Bike Lanes (Tech Rd to Cherry Hill Rd)	Protected Bicycle Lane	Montgom	Montgomery County	8030	0.673437

Broschart Rd	Protected Bicycle Lane	Montgom	Montgomery County	8133	0.516501
Burtonsville Access Road	Shared Use Path	Montgom	Montgomery County	8285	0.274153
Burtonsville To Silver Spring	Shared Use Path	Montgom	Montgomery County	7493	8.425751
Burtonsville To Silver Spring	Other	Montgom	Montgomery County	7499	1.632461
Burtonsville To Silver Spring	Protected Bicycle Lane	Montgom	Montgomery County	7519	0.858913
Burtonsville To Silver Spring	Shared Use Path	Montgom	Montgomery County	7542	0.337584
Cameron St	Protected Bicycle Lane	Montgom	Montgomery County	8141	0.337898
Capital Crescent Trail	Shared Use Path	Montgom	Montgomery County	7472	7.895922
Capital Crescent Trail	Shared Use Path	Montgom	Montgomery County	7475	4.523648
Capital Crescent Trail (surface Route)	Protected Bicycle Lane	Montgom	Montgomery County	7478	0.051856
Capital Crescent Trail (Surface Route) (Woodmont Ave to Elm St Park)	Protected Bicycle Lane	Montgom	Montgomery County	8029	0.251302
Capital Crescent Trail (Surface Route) (Woodmont Ave to Elm St Park)	Shared Use Path	Montgom	Montgomery County	8049	0.067677
Capital Crescent Trail Access	Shared Use Path	Montgom	Montgomery County	7471	0.969563
Capital Crescent Trail Breezeway (Elm St Park to Silver Spring Transit Center)	Shared Use Path	Montgom	Montgomery County	8028	0.370596
Capital Crescent Trail Breezeway (Elm St Park to Silver Spring Transit Center)	Shared Use Path	Montgom	Montgomery County	8055	0.053634
Capital Crescent Trail Connector	Shared Use Path	Montgom	Montgomery County	8161	0.05854
Capital Crescent Trail Connector	Shared Use Path	Montgom	Montgomery County	8173	0.033772
Carl Henn Millennium Trail	Standard Bicycle Lane	Montgom	Montgomery County	7492	0.202094

Cheltenham Dr	Protected Bicycle Lane	Montgom	Montgomery County	8082	0.078545
Cherry Hill Rd	Protected Bicycle Lane	Montgom	Montgomery County	7549	1.416128
Cherry Hill Rd Separated Bike Lanes (Prosperity Dr to Prince George's County)	Protected Bicycle Lane	Montgom	Montgomery County	8036	1.311469
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7482	0.153089
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7487	1.004261
City Of Rockville To Friendship Heights	Buffered Bicycle Lane	Montgom	Montgomery County	7501	0.141757
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7516	0.417443
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7517	0.032625
City Of Rockville To Friendship Heights	Shared Use Path	Montgom	Montgomery County	7522	0.129457
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7531	0.126417
City Of Rockville To Friendship Heights	Protected Bicycle Lane	Montgom	Montgomery County	7538	0.887077
City Of Rockville To Wheaton	Protected Bicycle Lane	Montgom	Montgomery County	7509	2.729276
City Of Rockville To Wheaton	Shared Use Path	Montgom	Montgomery County	7514	1.659663
Clark Pl	Bike Route Marking	Montgom	Montgomery County	8294	0.088937
Clarksburg To City Of Gaithersburg	Shared Use Path	Montgom	Montgomery County	7496	3.950101
Clarksburg To City Of Gaithersburg	Protected Bicycle Lane	Montgom	Montgomery County	7518	0.350032
Clarksburg To City Of Gaithersburg	Protected Bicycle Lane	Montgom	Montgomery County	7526	0.142776

Clarksburg To City Of Gaithersburg	Shared Use Path	Montgom	Montgomery County	7534	0.086485
Colie Dr	Shared Use Path	Montgom	Montgomery County	8287	0.364369
College View Dr	Bike Route Marking	Montgom	Montgomery County	8075	0.424784
College View Dr	Bike Route Marking	Montgom	Montgomery County	8165	0.174136
Crabbs Branch Way	Shared Use Path	Montgom	Montgomery County	8134	0.406756
Crystal Rock Dr	Protected Bicycle Lane	Montgom	Montgomery County	8245	1.021946
Crystal Rock Dr	Shared Use Path	Montgom	Montgomery County	8246	0.417636
Dale Dr	Shared Use Path	Montgom	Montgomery County	8184	2.12477
Darcy Forest Dr	Bike Route Marking	Montgom	Montgomery County	8291	0.178711
Darnestown Rd	Shared Use Path	Montgom	Montgomery County	8223	0.41524
Decoverly Dr	Protected Bicycle Lane	Montgom	Montgomery County	8126	0.464985
Denley Rd	Bike Boulevards	Montgom	Montgomery County	8279	0.481234
Diamondback Dr	Shared Use Path	Montgom	Montgomery County	8127	0.506602
Diamondback Dr	Protected Bicycle Lane	Montgom	Montgomery County	8151	0.176975
Dixon Ave	Protected Bicycle Lane	Montgom	Montgomery County	8166	0.285194
Dorset Ave	Bike Route Marking	Montgom	Montgomery County	8101	0.681851
Dorsey Mill Rd	Protected Bicycle Lane	Montgom	Montgomery County	8149	0.018956
Douglas Ave	Bike Route Marking	Montgom	Montgomery County	8076	1.205703
Douglas Ave	Bike Boulevards	Montgom	Montgomery County	8219	0.179847
E Jefferson St	Protected Bicycle Lane	Montgom	Montgomery County	8119	0.457752
East Ave	Protected Bicycle Lane	Montgom	Montgomery County	8096	0.048763
Edgemoor Ln Neighborhood Greenway (Exeter Rd to Arlington Rd)	Other	Montgom	Montgomery County	8034	0.246249

Edgemoor Ln Separated Bike Lanes (Arlington Rd to Bethesda Metrorail Station)	Protected Bicycle Lane	Montgom	Montgomery County	8025	0.158963
Edson Ln	Protected Bicycle Lane	Montgom	Montgomery County	8140	0.399621
Ellsworth Dr	Bike Route Marking	Montgom	Montgomery County	8132	0.151158
Elm St	Bike Route Marking	Montgom	Montgomery County	8120	0.509089
Emory Lane Sidepath	Shared Use Path	Montgom	Montgomery County	7488	0.296701
Emory Ln	Shared Use Path	Montgom	Montgomery County	7687	0.012504
Erskine St	Bike Route Marking	Montgom	Montgomery County	8252	0.140424
Evans Dr	Bike Route Marking	Montgom	Montgomery County	8260	0.062546
Evans Parkway Neighborhood Park Trail	Shared Use Path	Montgom	Montgomery County	7535	0.05113
Executive Blvd	Protected Bicycle Lane	Montgom	Montgomery County	8104	0.287133
Executive Blvd	Protected Bicycle Lane	Montgom	Montgomery County	8170	0.343322
Exeter Rd	Bike Route Marking	Montgom	Montgomery County	8070	0.620192
Falcon St	Bike Route Marking	Montgom	Montgomery County	8281	0.125075
Falls	Standard Bicycle Lane	Montgom	Montgomery County	8022	0.579834
Farragut Ave	Protected Bicycle Lane	Montgom	Montgomery County	8233	0.063629
FDA Blvd	Protected Bicycle Lane	Montgom	Montgomery County	8074	0.772427
Fenton St Separated Bike Lanes (Ellsworth Dr to Wayne Ave)	Protected Bicycle Lane	Montgom	Montgomery County	8054	0.110398
Fenton St Separated Bike Lanes (Wayne Ave to King St)	Protected Bicycle Lane	Montgom	Montgomery County	8024	0.567736
Fernwood Rd	Protected Bicycle Lane	Montgom	Montgomery County	8241	0.410519
Ferrara Ave	Bike Route Marking	Montgom	Montgomery County	8117	0.629987

Forest Glen Rd	Shared Use Path	Montgom	Montgomery County	8283	0.018858
Frederick Rd	Shared Use Path	Montgom	Montgomery County	7547	3.143457
Friendship Blvd Separated Bike Lanes (Willard Ave to District of Columbia)	Protected Bicycle Lane	Montgom	Montgomery County	8040	0.201428
Gaither Rd	Shared Use Path	Montgom	Montgomery County	8293	0.322422
Galt Ave	Bike Route Marking	Montgom	Montgomery County	8142	0.136294
Germantown To Burtonsville	Shared Use Path	Montgom	Montgomery County	7533	0.002992
Germantown To Life Sciences Center	Protected Bicycle Lane	Montgom	Montgomery County	7495	3.678055
Germantown To Life Sciences Center	Shared Use Path	Montgom	Montgomery County	7528	0.515467
Germantown Town Center To Montgomery College	Shared Use Path	Montgom	Montgomery County	7505	0.971559
Gilbert St	Bike Route Marking	Montgom	Montgomery County	8139	0.512192
Glenallan Ave	Protected Bicycle Lane	Montgom	Montgomery County	8289	0.60938
Glenmont To Silver Spring	Other	Montgom	Montgomery County	7511	1.466217
Glenmont To Silver Spring	Protected Bicycle Lane	Montgom	Montgomery County	7512	2.593276
Glenmont To Silver Spring	Shared Use Path	Montgom	Montgomery County	7524	0.30991
Glenmont To Silver Spring	Other	Montgom	Montgomery County	7527	0.665162
Glenmont to Silver Spring Breezeway (Georgia Ave to Arcola Ave)	Bike Route Marking	Montgom	Montgomery County	8167	0.692119
Glenmont to Silver Spring Breezeway (Georgia Ave to Arcola Ave)	Bike Boulevards	Montgom	Montgomery County	8440	0.70222
Glenside Dr	Bike Route Marking	Montgom	Montgomery County	8113	0.587401

Gold Mine Rd Sidepath (James Creek Ct to Chandlee Mill Rd)	Shared Use Path	Montgom	Montgomery County	8047	0.139726
Goshen Rd	Standard Bicycle Lane	Montgom	Montgomery County	8211	3.09431
Goshen Rd	Shared Use Path	Montgom	Montgomery County	8237	3.09858
Gould Rd	Bike Route Marking	Montgom	Montgomery County	8315	0.009399
Grandview Ave	Bike Route Marking	Montgom	Montgomery County	8155	0.281844
Grandview Ave Separated Bike Lanes (Blueridge Ave to University Blvd)	Protected Bicycle Lane	Montgom	Montgomery County	8033	0.263411
Grandview Ave Separated Bike Lanes (University Blvd to Reedie Dr)	Protected Bicycle Lane	Montgom	Montgomery County	8032	0.41225
Great Seneca Hwy	Shared Use Path	Montgom	Montgomery County	8056	0.491885
Greeley Ave	Bike Route Marking	Montgom	Montgomery County	8303	0.072773
Green Trail	Shared Use Path	Montgom	Montgomery County	7474	0.677137
Green Trail	Protected Bicycle Lane	Montgom	Montgomery County	7483	0.340757
Greenwood Ave	Bike Route Marking	Montgom	Montgomery County	8061	0.316155
Greenwood Ave	Bike Route Marking	Montgom	Montgomery County	8135	0.509692
Grosvenor Ln	Shared Use Path	Montgom	Montgomery County	8263	0.517998
Grosvenor Pl	Shared Use Path	Montgom	Montgomery County	8258	0.515791
Grove St	Bike Route Marking	Montgom	Montgomery County	8063	0.713044
Grubb Rd	Protected Bicycle Lane	Montgom	Montgomery County	8147	0.232037
Grubb Rd	Protected Bicycle Lane	Montgom	Montgomery County	8224	0.659597
Hildarose Dr	Bike Route Marking	Montgom	Montgomery County	8308	0.055895
Holton Ln	Bike Route Marking	Montgom	Montgomery County	8286	0.101257

Howard Ave	Shared Use Path	Montgom	Montgomery County	8300	0.039612
Hyattstown Bypass	Shared Use Path	Montgom	Montgomery County	7548	0.505513
I-495 Bridge	Shared Use Path	Montgom	Montgomery County	7525	0.35904
I-495 Bridge (east Side)	Shared Use Path	Montgom	Montgomery County	7521	0.356741
Icc Trail Extension	Shared Use Path	Montgom	Montgomery County	7539	0.110075
Icc Trail Extension	Shared Use Path	Montgom	Montgomery County	7540	0.141148
Industrial Dr	Shared Use Path	Montgom	Montgomery County	8273	0.318265
Industrial Pkwy	Protected Bicycle Lane	Montgom	Montgomery County	8111	2.109951
Intercounty Connector Trail	Shared Use Path	Montgom	Montgomery County	7468	5.506444
Intercounty Connector Trail	Shared Use Path	Montgom	Montgomery County	7480	4.277653
Jefferson	Contraflow Lanes	Montgom	Montgomery County	8017	0.487493
Jingle Ln	Bike Boulevards	Montgom	Montgomery County	8306	0.123473
Johns Hopkins Dr	Protected Bicycle Lane	Montgom	Montgomery County	8146	0.118783
Jones Bridge	Shared Use Path	Montgom	Montgomery County	7477	0.061216
Jones Bridge Rd	Shared Use Path	Montgom	Montgomery County	8084	0.029476
Jones Bridge Rd (South Side) Sidepath (Platt Ridge Dr to Connecticut Ave)	Shared Use Path	Montgom	Montgomery County	8051	0.167
Kensington Blvd	Shared Use Path	Montgom	Montgomery County	8097	0.271311
Larkin Pl	Bike Route Marking	Montgom	Montgomery County	8317	0.053288
Leland St	Protected Bicycle Lane	Montgom	Montgomery County	8144	0.067459
Lewis Dr	Protected Bicycle Lane	Montgom	Montgomery County	8194	0.180101
Life Sciences Center Loop (Great Seneca Hwy to Key West Ave)	Protected Bicycle Lane	Montgom	Montgomery County	8031	0.454199

Life Sciences Center Loop (Key West Ave to Great Seneca Hwy)	Protected Bicycle Lane	Montgom	Montgomery County	8041	1.101497
Life Sciences Center To Shady Grove Metro	Shared Use Path	Montgom	Montgomery County	7502	2.66707
Little Seneca Pkwy	Shared Use Path	Montgom	Montgomery County	8157	0.267767
Lockwood Dr	Shared Use Path	Montgom	Montgomery County	8156	0.142635
Long Branch Trail	Shared Use Path	Montgom	Montgomery County	7520	0.012776
Lyttonsville Rd	Bike Route Marking	Montgom	Montgomery County	8059	0.341134
Lyttonsville Rd	Protected Bicycle Lane	Montgom	Montgomery County	8109	0.864731
Macarthur Blvd	Shared Use Path	Montgom	Montgomery County	7479	1.662861
MacArthur Blvd	Bikeable Shoulders	Montgom	Montgomery County	8191	2.639435
MacArthur Blvd	Bikeable Shoulders	Montgom	Montgomery County	8222	1.081092
MacArthur Blvd	Shared Use Path	Montgom	Montgomery County	8249	1.334208
MacArthur Blvd Sidepath and Bikeable Shoulders (Goldsboro Rd to District of Columbia)	Bike Route Marking	Montgom	Montgomery County	8044	2.559506
MacArthur Blvd Sidepath and Bikeable Shoulders (Goldsboro Rd to District of Columbia)	Shared Use Path	Montgom	Montgomery County	8052	0.328653
Marinelli Rd Separated Bike Lanes (Executive Blvd to Woodglen Dr)	Protected Bicycle Lane	Montgom	Montgomery County	8048	0.177206
Marinelli Rd Separated Bike Lanes (Rockville Pike to Nebel St)	Protected Bicycle Lane	Montgom	Montgomery County	8045	0.423782

Maryland Ave	Bike Route Marking	Montgom	Montgomery County	8021	0.684534
Maryland Ave	Bike Route Marking	Montgom	Montgomery County	8085	0.491125
Matthew Henson Trail Ext	Shared Use Path	Montgom	Montgomery County	7491	0.539797
Matthew Henson Trail to Poplar Run	Shared Use Path	Montgom	Montgomery County	7489	0.59882
McKenney Ave	Bike Boulevards	Montgom	Montgomery County	8200	0.302819
McKinley St	Bike Route Marking	Montgom	Montgomery County	8154	0.148981
Medical Center Dr	Protected Bicycle Lane	Montgom	Montgomery County	8153	0.120201
Medical Center Dr Ext (Outer Side) Separated Bike Lanes (Great Seneca Hwy to Key West Ave)	Protected Bicycle Lane	Montgom	Montgomery County	8046	0.47855
Mercury Dr	Bike Boulevards	Montgom	Montgomery County	8239	0.257648
Metropolitan Branch Trail	Shared Use Path	Montgom	Montgomery County	7481	0.612656
Metropolitan Branch Trail Breezeway (Silver Spring Transit Center to King St)	Shared Use Path	Montgom	Montgomery County	8035	0.03242
Middlebrook Rd	Shared Use Path	Montgom	Montgomery County	8205	0.326523
Montgomery Ave	Shared Use Path	Montgom	Montgomery County	8243	0.059564
Montgomery Ln Separated Bike Lanes (Woodmont Ave to Wisconsin Ave)	Protected Bicycle Lane	Montgom	Montgomery County	8042	0.144929
Montgomery St	Protected Bicycle Lane	Montgom	Montgomery County	8171	0.059357
Montrose Ave	Shared Use Path	Montgom	Montgomery County	8277	0.490755
Montrose Pkwy	Shared Use Path	Montgom	Montgomery County	7484	0.023297

Montrose Rd	Shared Use Path	Montgom	Montgomery County	8256	0.998117
Moorland Ln	Bike Route Marking	Montgom	Montgomery County	8081	0.957672
Morningwood Dr	Shared Use Path	Montgom	Montgomery County	8255	0.203997
Nebel St	Protected Bicycle Lane	Montgom	Montgomery County	8089	0.496908
Nebel St Ext	Protected Bicycle Lane	Montgom	Montgomery County	8088	1.29544
Needwood Drive Bikepath	Shared Use Path	Montgom	Montgomery County	7476	0.262719
New Ave Bikeway	Shared Use Path	Montgom	Montgomery County	7552	0.768218
Nicholson Ln	Protected Bicycle Lane	Montgom	Montgomery County	8072	0.742133
Nicholson Ln	Protected Bicycle Lane	Montgom	Montgomery County	8091	1.004146
Nicholson Ln	Shared Use Path	Montgom	Montgomery County	8269	0.157045
Norfolk Ave	Bike Route Marking	Montgom	Montgomery County	8069	0.298933
Norfolk Ave	Protected Bicycle Lane	Montgom	Montgomery County	8083	0.111094
North Branch Hiker-biker Trail	Shared Use Path	Montgom	Montgomery County	7550	3.921726
Norwood Trail	Other	Montgom	Montgomery County	8121	0.17986
Observation Dr	Shared Use Path	Montgom	Montgomery County	7504	2.18724
Off-Street Trail	Shared Use Path	Montgom	Montgomery County	8312	0.041733
Old Columbia Pike	Shared Use Path	Montgom	Montgomery County	7543	0.097699
Old Columbia Pike	Shared Use Path	Montgom	Montgomery County	7545	0.12386
Olney #2	Protected Bicycle Lane	Montgom	Montgomery County	8209	0.714957
Olney #6	Shared Use Path	Montgom	Montgomery County	8309	0.108867
Olney To Glenmont	Shared Use Path	Montgom	Montgomery County	7497	2.592859
Olney To Glenmont	Protected Bicycle Lane	Montgom	Montgomery County	7498	0.356555
Olney To Glenmont	Shared Use Path	Montgom	Montgomery County	7510	1.166418
Olney To Glenmont	Shared Use Path	Montgom	Montgomery County	7530	0.055598

Olney to Glenmont Breezeway (Wendy Ln to Matthew Henson Trail)	Shared Use Path	Montgom	Montgomery County	8321	0.396411
Omega Dr	Protected Bicycle Lane	Montgom	Montgomery County	8172	0.121126
Parklawn Dr	Shared Use Path	Montgom	Montgomery County	8213	0.907633
Parklawn Dr	Shared Use Path	Montgom	Montgomery County	8278	0.591399
Pearl St	Protected Bicycle Lane	Montgom	Montgomery County	8107	0.132662
Pearl St	Protected Bicycle Lane	Montgom	Montgomery County	8108	0.302158
Pearl St	Bike Route Marking	Montgom	Montgomery County	8175	0.055311
Piedmont Crossing Local Park Trail	Shared Use Path	Montgom	Montgomery County	8114	0.30354
Plum Orchard Dr	Protected Bicycle Lane	Montgom	Montgomery County	8130	1.278212
Plyers Mill Rd	Shared Use Path	Montgom	Montgomery County	8310	0.100151
Potomac To Rock Spring	Shared Use Path	Montgom	Montgomery County	7500	2.083476
Potomac To Veirs Mill Road	Shared Use Path	Montgom	Montgomery County	7515	2.999446
Potomac to Veirs Mill Road Breezeway (Randolph Rd to Veirs Mill Rd)	Shared Use Path	Montgom	Montgomery County	8050	0.098115
Powder Mill Rd	Shared Use Path	Montgom	Montgomery County	8198	0.693367
Prichard Rd	Protected Bicycle Lane	Montgom	Montgomery County	8099	0.193239
Queen Mary Dr	Shared Use Path	Montgom	Montgomery County	8229	0.133575
Railroad Crossing	Shared Use Path	Montgom	Montgomery County	8320	0.045016
Randolph Rd	Shared Use Path	Montgom	Montgomery County	7544	0.770302
Randolph Rd	Shared Use Path	Montgom	Montgomery County	8305	0.181317
Ray Dr	Bike Route Marking	Montgom	Montgomery County	8100	0.64671

Redland Rd	Shared Use Path	Montgom	Montgomery County	7691	1.28418
Reedie Dr	Protected Bicycle Lane	Montgom	Montgomery County	8123	0.126302
Reedie Dr	Bike Route Marking	Montgom	Montgomery County	8160	0.090428
Research Blvd NB	Contraflow Lanes	Montgom	Montgomery County	8020	1.241372
Research Blvd SB	Bike Route Marking	Montgom	Montgomery County	8019	1.265911
Rock Spring Dr	Protected Bicycle Lane	Montgom	Montgomery County	8240	0.660798
Rockledge Dr	Protected Bicycle Lane	Montgom	Montgomery County	8188	0.475809
Rockledge Dr	Protected Bicycle Lane	Montgom	Montgomery County	8210	1.203002
Rockville Pkwy	Protected Bicycle Lane	Montgom	Montgomery County	7469	5.081883
Rosedale Ave	Bike Route Marking	Montgom	Montgomery County	8168	0.228402
Saratoga Ave	Bike Route Marking	Montgom	Montgomery County	8319	0.002668
Scott WB	Shared Use Path	Montgom	Montgomery County	8018	0.631152
Selfridge Rd	Bike Route Marking	Montgom	Montgomery County	8164	0.314949
Selfridge Rd	Other	Montgom	Montgomery County	8174	0.042792
Seven Locks Rd	Bike Route Marking	Montgom	Montgomery County	8057	0.996866
Seven Locks Rd	Shared Use Path	Montgom	Montgomery County	8065	1.238439
Sherrill Ave	Bike Route Marking	Montgom	Montgomery County	8301	0.006392
Silver Spring Ave	Bike Route Marking	Montgom	Montgomery County	8150	0.700938
Sleaford Rd	Bike Route Marking	Montgom	Montgomery County	8122	0.451419
Sligo Ave	Protected Bicycle Lane	Montgom	Montgomery County	8163	0.05516
Sligo Creek Trail	Shared Use Path	Montgom	Montgomery County	7536	0.007703
Sligo Creek Trail	Shared Use Path	Montgom	Montgomery County	7537	0.058212
Sligo Creek Trail Ext. To Matthew Henson	Shared Use Path	Montgom	Montgomery County	7551	3.498606

Snouffer School Rd Sidepath (Centerway Rd to Sweet Autumn Dr)	Shared Use Path	Montgom	Montgomery County	8043	1.030375
Snowden Farm Pkwy	Shared Use Path	Montgom	Montgomery County	8267	0.579298
Southlawn Ln	Shared Use Path	Montgom	Montgomery County	7692	0.209759
Southlawn Ln	Shared Use Path	Montgom	Montgomery County	7693	1.051848
Spartan Rd	Protected Bicycle Lane	Montgom	Montgomery County	8217	0.61527
Spartan Rd	Protected Bicycle Lane	Montgom	Montgomery County	8271	0.378314
Spring St / Cedar St	Protected Bicycle Lane	Montgom	Montgomery County	8176	0.158545
St Elmo Ave	Standard Bicycle Lane	Montgom	Montgomery County	8071	0.207892
Stewart Ln	Standard Bicycle Lane	Montgom	Montgomery County	8162	0.059883
Strathmore Hall St	Shared Use Path	Montgom	Montgomery County	8288	0.035716
Street A-251	Shared Use Path	Montgom	Montgomery County	8251	0.728449
Street B-2	Protected Bicycle Lane	Montgom	Montgomery County	8272	0.263865
Street B-2	Protected Bicycle Lane	Montgom	Montgomery County	8295	0.335056
Street B-5	Protected Bicycle Lane	Montgom	Montgomery County	8095	0.370537
Stringtown Rd	Shared Use Path	Montgom	Montgomery County	8183	1.188507
Sudbury Rd	Bike Route Marking	Montgom	Montgomery County	8068	0.794319
Summit Ave	Protected Bicycle Lane	Montgom	Montgomery County	8234	0.175257
Summit Ave Ext	Protected Bicycle Lane	Montgom	Montgomery County	8178	0.186979
Summit Hills Bikeway	Shared Use Path	Montgom	Montgomery County	8304	0.210937
Sundale Dr	Bike Route Marking	Montgom	Montgomery County	8060	0.835297
Tech Rd	Protected Bicycle Lane	Montgom	Montgomery County	8131	0.817342
Tilbury St	Bike Route Marking	Montgom	Montgomery County	8086	0.348269

Towne Rd	Protected Bicycle Lane	Montgom	Montgomery County	8145	0.207024
Traville Gateway Dr Ext	Protected Bicycle Lane	Montgom	Montgomery County	8169	0.171984
Tuckerman Ln	Shared Use Path	Montgom	Montgomery County	7470	5.716593
Tuckerman Ln	Protected Bicycle Lane	Montgom	Montgomery County	8177	0.662948
Tuckerman Ln	Standard Bicycle Lane	Montgom	Montgomery County	8185	1.511956
Tuckerman Ln	Standard Bicycle Lane	Montgom	Montgomery County	8186	2.315475
Tuckerman Ln	Shared Use Path	Montgom	Montgomery County	8235	1.518793
Twinbrook Pkwy	Protected Bicycle Lane	Montgom	Montgomery County	8212	0.304695
Twinbrook Pkwy	Protected Bicycle Lane	Montgom	Montgomery County	8270	0.059697
Twinbrook Pkwy	Protected Bicycle Lane	Montgom	Montgomery County	8318	0.136048
Upton Dr	Bike Route Marking	Montgom	Montgomery County	8077	0.203188
Utility Corridor #1	Shared Use Path	Montgom	Montgomery County	7473	11.19237
Utility Corridor #2	Shared Use Path	Montgom	Montgomery County	7513	25.31551
Veirs Mill Road To White Oak	Shared Use Path	Montgom	Montgomery County	7494	6.120569
Veirs Mill Road To White Oak	Shared Use Path	Montgom	Montgomery County	7532	0.017208
Walter Johnson Rd	Shared Use Path	Montgom	Montgomery County	8214	0.323153
Weiss St	Bike Route Marking	Montgom	Montgomery County	8238	0.087682
Weller Rd	Bike Boulevards	Montgom	Montgomery County	8261	0.105496
Weller Rd	Shared Use Path	Montgom	Montgomery County	8276	0.103825
West Ave	Bike Route Marking	Montgom	Montgomery County	8064	0.41689
Westbard Ave	Protected Bicycle Lane	Montgom	Montgomery County	8228	0.703194
Westbard Ave	Shared Use Path	Montgom	Montgomery County	8302	0.307175
Westlake Ter	Protected Bicycle Lane	Montgom	Montgomery County	8242	0.785786
Wheaton Plaza Entrance	Protected Bicycle Lane	Montgom	Montgomery County	8138	0.12616

Wheaton Plaza Ring Road	Protected Bicycle Lane	Montgom	Montgomery County	8201	2.189679
Wheaton To Takoma / Langley	Shared Use Path	Montgom	Montgomery County	7506	4.315894
Wheaton To Takoma / Langley	Protected Bicycle Lane	Montgom	Montgomery County	7508	1.227697
White Flint To Rock Spring	Protected Bicycle Lane	Montgom	Montgomery County	7490	0.623542
White Flint To Rock Spring	Shared Use Path	Montgom	Montgomery County	7507	1.340385
Wildwood Dr	Bike Route Marking	Montgom	Montgomery County	8062	0.62982
Willard Ave	Protected Bicycle Lane	Montgom	Montgomery County	8230	0.500641
Willard Ave Trail	Shared Use Path	Montgom	Montgomery County	8274	0.451875
Wisteria Dr	Protected Bicycle Lane	Montgom	Montgomery County	8204	1.0431
Woodglen	Shared Use Path	Montgom	Montgomery County	7486	0.066392
Woodmont Ave Separated Bike Lanes (Strathmore St to Wisconsin Ave)	Protected Bicycle Lane	Montgom	Montgomery County	8037	0.062868
15th St NW Cycle Track from Penn Ave NW to Maine Ave SW	Protected Bicycle Lane	District of mbia	National Park Service	7861	0.796445
Anacostia Kenilworth Trail	Shared Use Path	District of mbia	National Park Service	8839	1.75397
Anacostia River Trail	Other	District of mbia	National Park Service	7283	2.47336
Anacostia River Trail-SW From Buzzard Point to the Wharf	Shared Use Path	District of mbia	National Park Service	7443	1.820116
Anacostia Riverwalk Trail Phase II	Shared Use Path	District of mbia	National Park Service	7859	9.606792
Arboretum Connector	Shared Use Path	District of mbia	National Park Service	7286	1.113237
Kennedy Center Pedestrian/Bicycle Trail	Shared Use Path	District of mbia	National Park Service	7858	0.595485

Long Bridge Park to Mt. Vernon Trail Connection	Shared Use Path	Arlington	National Park Service	8502	0.191959
Mount Vernon Trail Extension	Shared Use Path	Arlington	National Park Service	7370	0.118492
Mount Vernon Trail Widening	Shared Use Path	Arlington	National Park Service	8501	5.2019
Oxon Cove Hiker Biker Trail	Shared Use Path	District of mbia	National Park Service	7376	1.074991
Rock Creek Park Multi-use Trail and Pedestrian Bridge Project	Shared Use Path	District of mbia	National Park Service	10086	6.44405
Rock Creek Park Trail	Shared Use Path	District of mbia	National Park Service	<Null>	1.303555
Rock Creek Park Trail Extension	Shared Use Path	District of mbia	National Park Service	7395	3.569464
Suitland Parkway Sidepath from Southern Ave to Firth Sterling Ave SE	Shared Use Path	Prince rges	National Park Service	7442	2.757895
W&OD and Four Mile Run Trail Upgrades	Shared Use Path	Arlington	NOVA Parks	8492	8.40285
W&OD Realignment at East Falls Church	Streetscape/Pedestrian Improvements	Arlington	NOVA Parks	8496	0.085511
23rd Parkway Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7000	0.999947
38th Street (MD 208) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10034	0.956856
A-55 Side Path	Shared Use Path	Prince rges	Prince Georges County	7002	3.771056
A-56 Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7003	1.650294
A-6 Side Path	Shared Use Path	Prince rges	Prince Georges County	10006	1.026036
A-63 Side Path	Shared Use Path	Prince rges	Prince Georges County	10035	1.944316
A-65	Other	Prince rges	Prince Georges County	7282	0.029512

A-65 Side Path	Shared Use Path	Prince rges	Prince Georges County	7006	4.54672
Addison Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7007	1.939567
Adelphi Rd. Pedestrian Safety Improvements	Streetscape/Pedestrian Improvements	Prince rge's nty	Prince Georges County	10346	2.822676
Ager Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7008	1.903037
Allentown Road (MD 337) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10007	1.75148
Allentown Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7010	0.879313
Allentown Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7011	1.358096
Allentown Road Side Path	Shared Use Path	Prince rges	Prince Georges County	9706	0.393389
Ammendale Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7013	0.630619
Annapolis Rd	Other	Prince rges	Prince Georges County	7284	1.079023
Annapolis Road (MD 450)	Other	Prince rges	Prince Georges County	7285	0.590243
Annapolis Road (MD 450, MD 202) Side Path	Shared Use Path	Prince rges	Prince Georges County	10008	0.954081
Annapolis Road (MD 450, MD 202) Side Path	Shared Use Path	Prince rges	Prince Georges County	9826	0.859485
Ardwick Ardmore Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7015	1.756524
Arena Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7016	0.529095
Auth Way Side Path	Shared Use Path	Prince rges	Prince Georges County	7017	1.283038

Back Branch Trail	Shared Use Path	Prince Georges	Prince Georges County	7288	1.362099
Back Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7289	3.200862
Back Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7434	0.049472
Back Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7019	1.578467
Bald Hill Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7291	3.885133
Baltimore Avenue (US-1) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10009	1.065097
Baltimore Avenue (US-1) Side Path	Shared Use Path	Prince rges	Prince Georges County	10010	5.402973
Baltimore-washington Parkway	Shared Use Path	Prince rges	Prince Georges County	7292	3.749849
Barnaby Run Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7025	1.527405
Beaver Dam Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7026	3.457645
Beaver Dam Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7027	1.322019
Beech Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7028	1.177912
Bike Share Stations in Prince George's County	Bike Share	Prince rge's nty	Prince Georges County	8622	0.190825
Black Swamp Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7029	6.303513
Bock Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7030	1.029068
Bond Mill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7031	1.578735

Boston Connector Trail	Shared Use Path	Prince rges	Prince Georges County	7294	0.289658
Bowie Connector Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7032	1.16582
Bowie Heritage Trail	Shared Use Path	Prince rges	Prince Georges County	7295	0.723888
Bowie Heritage Trail	Shared Use Path	Prince rges	Prince Georges County	7467	2.886881
Brandywine Connector	Other	Prince rges	Prince Georges County	7465	0.568878
Brandywine Connector	Other	Prince rges	Prince Georges County	7466	0.221907
Brandywine Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7033	1.788587
Brandywine Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7034	0.545219
Brandywine Road Trail	Shared Use Path	Prince rges	Prince Georges County	7297	8.677075
Brandywine To Piscataway	Shared Use Path	Prince rges	Prince Georges County	7298	3.258984
Brightseat Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7035	1.581659
Brightseat Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7036	2.215029
Brinkley Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7037	3.97154
Brooke Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7299	0.127472
Brooke Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7038	1.039967
Brooklyn Bridge Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7039	2.257037

Brooks Dr Sidepath	Shared Use Path	Prince rges	Prince Georges County	7300	0.804553
Brooks Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7040	1.024247
Brown Station Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7041	4.017266
Burch Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7301	4.421762
Burch Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7042	3.592269
Butler Branch Costca Connector Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7043	1.314253
Cabin Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7302	3.655489
Cabin Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7303	5.970933
Camp Springs Connector	Shared Use Path	Prince rges	Prince Georges County	7304	6.749838
Campus Dr. Green Street Improvements	Standard Bicycle Lane	Prince rges	Prince Georges County	10366	0.748315
Campus Way Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7050	1.525524
Campus Way Side Path	Shared Use Path	Prince rges	Prince Georges County	7051	1.242959
Campus Way Side Path	Shared Use Path	Prince rges	Prince Georges County	7052	0.603777
Capitol Heights Boulevard Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7053	0.477805
Cattail Branch	Shared Use Path	Prince rges	Prince Georges County	7305	0.04319

Cattail Branch Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7054	2.662203
Cb Rail-trail Connector	Shared Use Path	Prince rges	Prince Georges County	7306	0.530133
Central Avenue (MD 214) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	9786	2.775248
Central Avenue (MD 332) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10011	1.113787
Central Avenue Connector Trail	Shared Use Path	Prince rges	Prince Georges County	7307	5.938853
Central Park Loop Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7058	1.262467
Charles Branch Connector Trails Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7059	1.206265
Charles Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7308	1.174388
Charles Branch Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7060	7.256829
Cheltingham Park Connector Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7061	1.777795
Cherry Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10012	2.643374
Cherry Hill Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7063	1.189302
Cherry Tree Crossing Rd	Shared Use Path	Prince rges	Prince Georges County	7310	0.001091
Cherrywood Lane Sidepath West Side Path	Shared Use Path	Prince rges	Prince Georges County	7064	1.566409
Chesapeake Beach Rail Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7065	1.183915

Chesapeake Beach Railway Trail	Shared Use Path	Prince rges	Prince Georges County	7311	7.655654
Chestnut Avenue & Highbridge Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7066	2.674484
Cheverly To Bladensburg Waterfront Park	Shared Use Path	Prince rges	Prince Georges County	7355	0.26955
Cheverly To Bladensburg Waterfront Park Trail	Shared Use Path	Prince rges	Prince Georges County	7280	0.307224
Cheverly To Bladensburg Waterfront Park Trail	Shared Use Path	Prince rges	Prince Georges County	7364	0.254158
Church Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7067	1.871115
College Park Woods Connector	Shared Use Path	Prince rges	Prince Georges County	7312	0.495444
Collington Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7313	7.355782
Collington Road (MD 197) Side Path	Standard Bicycle Lane	Prince rges	Prince Georges County	9866	1.92241
Collington Road/laurel Bowie Road	Shared Use Path	Prince rges	Prince Georges County	7314	1.355537
Collington Road/Laurel Bowie Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7070	1.400152
Columbia Park Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7072	2.16947
Contee Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7075	3.065971
Corporate Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7076	1.007608
Crain Hwy Sidepath	Shared Use Path	Prince rges	Prince Georges County	7318	0.255009

Croom Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7319	0.885618
DB-7 Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7079	1.188732
Donnell Dr. Pedestrian Safety Improvements	Streetscape/Pedestrian Improvements	Prince rge's nty	Prince Georges County	10386	0.872031
Dower House Branch Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7081	1.40943
Dower House Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7082	1.058675
Duckettown Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7083	1.695591
Dyson Road	Other	Prince rges	Prince Georges County	7321	0.004016
Dyson Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7086	0.709359
East West Highway (MD 410) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	9886	5.104248
Edmonston Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7089	1.174821
Ellin Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7091	1.27396
Enterprise Road (MD 193) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	9906	1.597277
Euclid Street Sidepath	Shared Use Path	Prince rges	Prince Georges County	7325	0.054746
Fairwood Drive Side Path	Shared Use Path	Prince rges	Prince Georges County	7094	1.019145
Farm Road Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7095	2.41677
Fletchertown Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7097	0.62378

Floral Park Road	Other	Prince rges	Prince Georges County	7326	0.307854
Floral Park Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7098	5.403278
Folly Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7327	2.628594
Folly Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7328	0.772503
Folly Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7099	1.944437
Forbes Boulevard Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7100	2.621141
Fort Foote Road	Other	Prince rges	Prince Georges County	7331	0.238726
Fort Washington Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7334	1.277609
Fort Washington Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7335	1.805047
Garrett A Morgan Boulevard Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7103	0.513249
Good Luck Road	Other	Prince rges	Prince Georges County	7339	1.641319
Good Luck Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7104	6.710461
Good Luck Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7105	6.710461
Grandhaven Ave Sidepath	Shared Use Path	Prince rges	Prince Georges County	7340	0.477884
Greenbelt Road Sidepath North Side Path	Shared Use Path	Prince rges	Prince Georges County	7107	3.111756
Grey Fox Road Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7108	1.131569

Gunpowder Road	Standard Bicycle Lane	Prince rges	Prince Georges County	7341	0.614412
Gunpowder Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7109	3.667851
Gunpowder Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7110	1.045714
Gunpowder Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7111	1.040947
Harry S Truman Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7113	0.53448
Henson Creek Trail	Shared Use Path	Prince rges	Prince Georges County	7342	3.460478
Heritage Blvd	Other	Prince rges	Prince Georges County	7343	0.699571
Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7115	1.695047
Hillmeade Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7116	0.679242
HOA Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7117	1.08798
Hotchkins Branch Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7118	2.494438
Indian Creek	Shared Use Path	Prince rges	Prince Georges County	7344	1.092335
Indian Head Highway (md 210)	Shared Use Path	Prince rges	Prince Georges County	7345	1.9517
Indian Head Highway (MD 210) Side Path	Shared Use Path	Prince rges	Prince Georges County	10022	14.464851
Indian Head Hwy Sidepath	Shared Use Path	Prince rges	Prince Georges County	7346	0.079409
Iverson St. Pedestrian	Streetscape/Pedestrian Improvements	Prince rges	Prince Georges County	10406	1.881515

Safety Improvements					
Jericho Park Road Extension To Bowie State	Other	Prince rges	Prince Georges County	7347	0.70136
John Hanson Hwy	Shared Use Path	Prince rges	Prince Georges County	7348	1.15808 4
Jug Bay Park Connector	Shared Use Path	Prince rges	Prince Georges County	7349	0.99119 4
Karen Boulevard Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7120	1.34129 6
Kenhill Dr Sidepath	Shared Use Path	Prince rges	Prince Georges County	7350	0.09377 8
Keniworth Avenue (MD 201) Side Path	Standard Bicycle Lane	Prince rges	Prince Georges County	9926	7.24045 4
Lake Arbor Way Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7124	1.79198 2
Landover Gateway Bike Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7125	1.08630 9
Landover Road (MD 202) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	9946	3.60581 8
Landover Road (MD 202) Side Path	Shared Use Path	Prince rges	Prince Georges County	9966	1.55869 8
Landover Road (MD 202) Side Path	Shared Use Path	Prince rges	Prince Georges County	9986	1.08730 7
Lanham Severn Road (MD 564) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10013	5.01786 6
Lanham Severn Road (MD 564) Side Path	Shared Use Path	Prince rges	Prince Georges County	10014	2.24103 7
Lanham Severn Road (MD 564) Side Path	Shared Use Path	Prince rges	Prince Georges County	10015	2.68165 8
Larchmont Avenue Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7132	1.03794 9

Largo Area CIP Roadway Project	Protected Bicycle Lane	Prince rge's nty	Prince Georges County	10306	2.539431
Largo Road (md 202)	Shared Use Path	Prince rges	Prince Georges County	7352	2.269536
Largo Road (MD 202) Side Path	Shared Use Path	Prince rges	Prince Georges County	10023	7.592207
Laurel Bowie Road (md 197)	Shared Use Path	Prince rges	Prince Georges County	7353	6.32676
Laurel-bowie Connection	Other	Prince rges	Prince Georges County	7440	5.851121
LB-7 Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7137	1.256129
Little Paint Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7309	1.189302
Little Paint Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7380	0.253983
Little Paint Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7401	0.776679
Livingston Rd	Other	Prince rges	Prince Georges County	7293	0.182275
Livingston Rd	Other	Prince rges	Prince Georges County	7354	2.504594
Livingston Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7138	3.020177
Lottsford Branch Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7139	2.824054
Lottsford Branch Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7140	1.77488
Lottsford Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7141	3.150726
Lottsford Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7142	2.051317

Lottsford Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7143	1.097439
Lottsford Vista Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7144	2.640878
Lower Beaverdam Trail	Shared Use Path	Prince rges	Prince Georges County	7357	1.777032
Lower Beaverdam Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7145	3.147582
Lydell Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7358	0.104267
Marlboro Pike Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7146	2.741888
Marlboro Pike Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7147	4.249939
Marlboro Race Track Rd Sidepath	Shared Use Path	Prince rges	Prince Georges County	7359	0.908873
Marlton Park Trail	Shared Use Path	Prince rges	Prince Georges County	7360	0.252787
Martin Luther King Jr Boulevard (MD 704) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10019	4.354907
Martin Luther King Jr Boulevard (MD 704) Side Path	Shared Use Path	Prince rges	Prince Georges County	10020	4.361269
Martin Luther King Jr Boulevard (MD 704) Side Path	Shared Use Path	Prince rges	Prince Georges County	10021	2.318055
Martin Luther King Jr. Hwy (md 704)/wb&a Extension	Shared Use Path	Prince rges	Prince Georges County	7361	6.377285
Martin Luther King Jr. Hwy (md 704)/wb&a Extension	Shared Use Path	Prince rges	Prince Georges County	7417	0.201037

Maryland 4 To Livingston Sidepath	Shared Use Path	Prince rges	Prince Georges County	7362	10.036712
Mataponi Hiker Equestrian Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7151	1.750073
Mathew Street	Other	Prince rges	Prince Georges County	7363	1.930448
Mattawoman Creek Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7153	13.97098
Mattawoman Creek Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7154	1.858346
MC-703 Side Path	Shared Use Path	Prince rges	Prince Georges County	7155	2.256329
MD 223	Other	Prince rges	Prince Georges County	7365	2.7611
Melwood Community Park Connector	Shared Use Path	Prince rges	Prince Georges County	7366	0.035818
Melwood Community Park Connector Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7157	3.385287
Melwood Legacy Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7158	1.047979
Metroland Parkway Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7159	1.130744
Metzerott Rd., MD 650 to Adelphi Rd., Pedestrian Safety Improvements	Traffic Calming	Prince rge's nty	Prince Georges County	10966	1.832893
Metzerott Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7160	2.084103
Mitchellville Road	Other	Prince rges	Prince Georges County	7368	1.232054

Mitchellville Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7161	1.232055
Montgomery Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7162	1.692586
Montgomery Street Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7163	1.225137
Mt. Oak Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7164	1.246371
Muirkirk Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7165	4.413369
N Crain Hwy Sidepath	Shared Use Path	Prince rges	Prince Georges County	7371	0.96751
National Harbor Blvd	Shared Use Path	Prince rges	Prince Georges County	7372	0.973042
New Hampshire Avenue (MD 650) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10025	1.123247
Oak Grove Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7177	1.238301
Oak Grove/Leeland Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7178	1.572144
Odell Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7179	2.662491
Old Baltimore Pike Side Path	Shared Use Path	Prince rges	Prince Georges County	7180	1.509109
Old Branch Avenue Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7181	3.131916
Old Branch Avenue Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7182	3.800546
Old Fort Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7185	2.640486
Old Fort Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7186	3.233743

Old Gunpowder Road Bike Lane	Standard Bicycle Lane	Prince rge's nty	Prince Georges County	10486	0.610286
Old Laurel Bowie Road	Shared Use Path	Prince rges	Prince Georges County	7375	0.280735
Oxon Hill Road	Shared Use Path	Prince rges	Prince Georges County	7378	1.493135
Oxon Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7187	1.722499
Oxon Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7188	1.134918
Oxon Run Trail Extension	Shared Use Path	Prince rges	Prince Georges County	7448	0.7874
Oxon Run Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7189	3.398149
Paint Branch Parkway	Standard Bicycle Lane	Prince rges	Prince Georges County	7379	0.427351
Palmer Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7190	1.358387
Parkwood Street Side Path	Shared Use Path	Prince rges	Prince Georges County	7191	1.222637
Patuxent River Park Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7192	1.764459
Patuxent River Park Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7193	1.213223
Patuxent River Park Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7194	1.052082
Pea Hill Branch Connection 2 Side Path	Shared Use Path	Prince rges	Prince Georges County	7195	1.276356
Pea Hill Branch Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7196	3.207262
Pennsy Drive Side Path	Shared Use Path	Prince rges	Prince Georges County	7197	2.075905

Pennsylvania Avenue (MD 4) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10026	4.459585
Pennsylvania Avenue Sidepath	Shared Use Path	Prince rges	Prince Georges County	7381	7.262227
Peppermill Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7200	1.004227
Peppermill Drive Side Path	Shared Use Path	Prince rges	Prince Georges County	7201	1.002488
Perrie Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7202	1.118083
Piscataway Creek Trail	Shared Use Path	Prince rges	Prince Georges County	7382	16.820151
Powder Mill Road (MD 212) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10028	5.419151
Powder Mill Road (MD 212) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10029	5.021342
Power Line Connector	Shared Use Path	Prince rges	Prince Georges County	7384	3.345971
Presidential Parkway (MD 634)	Shared Use Path	Prince rges	Prince Georges County	7385	4.498241
Prince Georges Connector	Shared Use Path	Prince rges	Prince Georges County	7387	0.382823
Princess Garden Parkway Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7207	0.495383
Prospect Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7208	1.512158
Race Track Road	Shared Use Path	Prince rges	Prince Georges County	7388	2.70818
Rail Trail	Shared Use Path	Prince rges	Prince Georges County	7389	2.649622
Redskins Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7211	1.109136

Regency Ln Sidepath	Shared Use Path	Prince rges	Prince Georges County	7390	0.201168
Regency Parkway Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7212	1.063273
Rhode Island Avenue (US 1) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10031	1.690293
Rhode Island Avenue Trolley Trail	Shared Use Path	Prince rges	Prince Georges County	7392	4.002153
Rhode Island Avenue Trolley Trail Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10032	1.32973
Ritchie Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7215	2.671889
Ritchie Marlboro Road	Shared Use Path	Prince rges	Prince Georges County	7394	0.042834
Ritchie Marlboro Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7216	2.439423
Ritchie Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7217	1.197227
Riverview Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7218	2.070069
Rock Creek Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7219	6.167232
Rollins Avenue Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7220	1.641666
Rosaryville Connector	Shared Use Path	Prince rges	Prince Georges County	7396	2.605701
Rosaryville Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7221	2.423547
S. Crain Hwy Sidepath	Shared Use Path	Prince rges	Prince Georges County	7398	0.40816
Saarc Connector	Shared Use Path	Prince rges	Prince Georges County	7399	1.677684

Schuster Dr	Other	Prince rges	Prince Georges County	7400	0.542642
Seat Pleasant Drive Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7229	1.165167
Sellman Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7230	1.964564
Sheriff Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7232	3.477086
Silver Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7233	3.109857
Soil Conservation Rd	Other	Prince rges	Prince Georges County	7386	1.280119
Soil Conservation Rd	Other	Prince rges	Prince Georges County	7403	2.324034
Southwest Branch Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7234	7.714403
SP-40 Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7235	1.760701
Springfield Rd	Other	Prince rges	Prince Georges County	7406	2.438031
Springfield Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7236	4.961341
St. Barnabas Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7237	4.109427
Steed Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7238	1.708036
Stuart Ln. Pedestrian Safety Improvements	Streetscape/Pedestrian Improvements	Prince rge's nty	Prince Georges County	10986	0.654787
Suitland Bog Connector	Shared Use Path	Prince rges	Prince Georges County	7407	1.332696
Suitland Bog Park Trail	Shared Use Path	Prince rges	Prince Georges County	7408	0.447169

Suitland Community Park	Shared Use Path	Prince rges	Prince Georges County	7409	1.114105
Suitland Parkway Extended (MC 631) Side Path	Shared Use Path	Prince rges	Prince Georges County	10033	3.045229
Suitland Parkway Side Path	Shared Use Path	Prince rges	Prince Georges County	7241	6.423604
Suitland Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7242	4.579027
Sunnyside Avenue Side Path	Shared Use Path	Prince rges	Prince Georges County	7243	1.041118
Swan Creek Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7244	1.270403
Swan Point Creek Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7245	1.160391
Temple Hill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7247	5.550585
Timothy Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7411	1.65573
Timothy Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7248	3.964988
Tinkers Creek Trail	Shared Use Path	Prince rges	Prince Georges County	7412	8.643025
Tinkers Creek Trail	Shared Use Path	Prince rges	Prince Georges County	7430	0.032703
Tom Walls Branch Trail Natural Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7250	3.659476
Trolley Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7251	1.425636
Tucker Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7252	1.138553

University Boulevard (MD 193) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10046	2.450669
University Boulevard (MD 193) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10047	2.090671
University Boulevard (MD 193) Side Path	Shared Use Path	Prince rges	Prince Georges County	10048	2.143647
Unknown	Shared Use Path	Prince rges	Prince Georges County	7431	2.570803
Unknown	Shared Use Path	Prince rges	Prince Georges County	7432	1.189788
Unknown	Shared Use Path	Prince rges	Prince Georges County	7433	0.735428
Unknown	Shared Use Path	Prince rges	Prince Georges County	7435	0.407845
Unknown	Shared Use Path	Prince rges	Prince Georges County	7436	0.192141
Unknown	Shared Use Path	Prince rges	Prince Georges County	7437	0.109802
Unknown	Other	Prince rges	Prince Georges County	7438	0.000746
Unknown	Other	Prince rges	Prince Georges County	7439	0.00099
Upper Marlboro Connector	Shared Use Path	Prince rges	Prince Georges County	7414	1.147584
US-1 Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10049	5.276843
US-1 Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10050	4.733916
US-1 Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10051	1.792775
US-1 Side Path	Shared Use Path	Prince rges	Prince Georges County	10052	1.732527

US-1 Side Path	Shared Use Path	Prince rges	Prince Georges County	10053	3.650553
Van Dusen Road	Shared Use Path	Prince rges	Prince Georges County	7415	1.521469
Veteran's Parkway (MD 410) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	10054	2.229133
Walker Mill Regional Park/chesapeake Rail Trail	Shared Use Path	Prince rges	Prince Georges County	7418	1.214331
Walker Mill Regional Park/Chesapeake Rail Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7264	1.220934
Walker Mill Road	Other	Prince rges	Prince Georges County	7419	0.326343
Walker Mill Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7265	2.724487
Walker Mill Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7266	2.310596
Walker Mill Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7267	1.353513
Waterfront St	Other	Prince rges	Prince Georges County	7420	0.23129
Watkins Connector	Shared Use Path	Prince rges	Prince Georges County	7421	0.98811
Watkins Reg. Park Connector	Shared Use Path	Prince rges	Prince Georges County	7422	1.816047
Watkins Regional Park Trails	Shared Use Path	Prince rges	Prince Georges County	7423	0.912425
Wells Pkwy E #1	Other	Prince rges	Prince Georges County	7424	0.307637
Wesson Drive Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7269	1.00634

Western Branch Trail	Shared Use Path	Prince rges	Prince Georges County	7426	4.689735
Western Branch Trail Hard Surface Trail	Shared Use Path	Prince rges	Prince Georges County	7270	15.405984
Westphalia Road (C-626) Side Path	Shared Use Path	Prince rges	Prince Georges County	10055	2.557805
Wheeler Road (C-704) Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7272	1.785553
White House Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7273	0.949908
White Marsh Park Trail	Shared Use Path	Prince rges	Prince Georges County	7427	0.363965
Whitfield Chapel Road Bike Lane	Standard Bicycle Lane	Prince rges	Prince Georges County	7274	1.820666
Woodmoore Road Side Path	Shared Use Path	Prince rges	Prince Georges County	7275	2.619528
Balls Ford	Shared Use Path	Prince am	Prince William Co. DPW	7809	2.81802
Belmont Bay	Shared Use Path	Prince am	Prince William Co. DPW	7806	0.699502
Benita Fitzgerald	Shared Use Path	Prince am	Prince William Co. DPW	7807	1.060759
Blackburn	Shared Use Path	Prince am	Prince William Co. DPW	7641	1.277295
Carver	Shared Use Path	Prince am	Prince William Co. DPW	7830	0.954941
Catharpin	Shared Use Path	Prince am	Prince William Co. DPW	7841	0.711629
Caton Hill	Shared Use Path	Prince am	Prince William Co. DPW	7810	0.882813
Centreville	Shared Use Path	Prince am	Prince William Co. DPW	7637	2.103282

Clover Hill	Shared Use Path	Prince am	Prince William Co. DPW	7802	1.104326
Csx Potomac River Corridor	Shared Use Path	Prince am	Prince William Co. DPW	7857	8.084235
Cushing Road	Shared Use Path	Prince am	Prince William Co. DPW	7848	0.700221
Dale	Shared Use Path	Prince am	Prince William Co. DPW	7811	6.045193
Dale	Shared Use Path	Prince am	Prince William Co. DPW	7812	1.91025
Devlin	Shared Use Path	Prince am	Prince William Co. DPW	7808	1.962053
Dumfries	Shared Use Path	Prince am	Prince William Co. DPW	7639	2.156686
Dumfries	Shared Use Path	Prince am	Prince William Co. DPW	7803	0.92834
Dumfries Rd	Shared Use Path	Prince am	Prince William Co. DPW	7626	0.973948
Farm Creek	Shared Use Path	Prince am	Prince William Co. DPW	7629	1.050176
Featherstone	Shared Use Path	Prince am	Prince William Co. DPW	7630	0.968241
Freedom Center	Shared Use Path	Prince am	Prince William Co. DPW	7813	0.688538
Gideon	Shared Use Path	Prince am	Prince William Co. DPW	7814	0.806848
Godwin Dr	Shared Use Path	Prince am	Prince William Co. DPW	7553	0.900388
Godwin Trail	Shared Use Path	Prince am	Prince William Co. DPW	7624	2.064423
Gordon	Shared Use Path	Prince am	Prince William Co. DPW	7632	2.060594

Grant Ave	Shared Use Path	Prince am	Prince William Co. DPW	7627	0.621302
Harbor Station	Shared Use Path	Prince am	Prince William Co. DPW	7825	1.309914
Harbor Station	Shared Use Path	Prince am	Prince William Co. DPW	7839	0.369788
Harbor Station	Shared Use Path	Prince am	Prince William Co. DPW	7840	0.160822
Hoadly	Shared Use Path	Prince am	Prince William Co. DPW	7815	2.232098
Hoadly	Shared Use Path	Prince am	Prince William Co. DPW	7846	1.554454
Horner	Shared Use Path	Prince am	Prince William Co. DPW	7816	1.270821
James Madison	Shared Use Path	Prince am	Prince William Co. DPW	7631	6.576583
Jefferson Davis	Shared Use Path	Prince am	Prince William Co. DPW	7634	11.681947
John Marshall	Shared Use Path	Prince am	Prince William Co. DPW	7826	0.486347
John Marshall	Shared Use Path	Prince am	Prince William Co. DPW	7843	1.725145
John Marshall	Shared Use Path	Prince am	Prince William Co. DPW	7844	0.810248
Lee	Shared Use Path	Prince am	Prince William Co. DPW	7633	5.855975
Manassas Bat Byp	Shared Use Path	Prince am	Prince William Co. DPW	7835	2.081649
Manassas Drive	Shared Use Path	Prince am	Prince William Co. DPW	7643	1.162988
McGraws Corner	Shared Use Path	Prince am	Prince William Co. DPW	7832	1.32294

Neabsco	Shared Use Path	Prince am	Prince William Co. DPW	7827	1.521857
Neabsco Mills	Shared Use Path	Prince am	Prince William Co. DPW	7829	1.104555
Nokesville	Shared Use Path	Prince am	Prince William Co. DPW	7640	6.401372
Nokesville Road	Shared Use Path	Prince am	Prince William Co. DPW	7623	0.579726
North South	Shared Use Path	Prince am	Prince William Co. DPW	7834	0.88057
Occoquan Greenway Segment 1	Shared Use Path	Prince am	Prince William Co. DPW	7852	1.459416
Old Bridge	Shared Use Path	Prince am	Prince William Co. DPW	7842	0.371415
Opitz	Shared Use Path	Prince am	Prince William Co. DPW	7836	1.56967
Potomac Shore Powerline Cut	Shared Use Path	Prince am	Prince William Co. DPW	7856	2.298035
Powell'S Creek Boardwalk	Shared Use Path	Prince am	Prince William Co. DPW	7851	0.659617
Prince William	Shared Use Path	Prince am	Prince William Co. DPW	7635	9.470697
Prince William Park Connector To Van Buren Rd	Shared Use Path	Prince am	Prince William Co. DPW	7853	1.630448
Purcell	Shared Use Path	Prince am	Prince William Co. DPW	7817	3.198683
Red Mulberry Powerline Cut	Shared Use Path	Prince am	Prince William Co. DPW	7855	1.825959
Reddy	Shared Use Path	Prince am	Prince William Co. DPW	7837	0.266388
Rippon	Shared Use Path	Prince am	Prince William Co. DPW	7638	0.297243

Rippon	Shared Use Path	Prince am	Prince William Co. DPW	7818	1.988022
River Heritage	Shared Use Path	Prince am	Prince William Co. DPW	7850	0.623524
Rollins Ford	Shared Use Path	Prince am	Prince William Co. DPW	7833	3.467992
Route 29 Alternate	Shared Use Path	Prince am	Prince William Co. DPW	7636	5.165587
Smoketown	Shared Use Path	Prince am	Prince William Co. DPW	7819	1.354044
Station	Shared Use Path	Prince am	Prince William Co. DPW	7824	1.640422
Sudley Manor	Shared Use Path	Prince am	Prince William Co. DPW	7828	1.779822
Summit School	Shared Use Path	Prince am	Prince William Co. DPW	7820	0.622884
Summit School	Shared Use Path	Prince am	Prince William Co. DPW	7838	0.331365
Telegraph	Shared Use Path	Prince am	Prince William Co. DPW	7821	1.435185
Telegraph	Shared Use Path	Prince am	Prince William Co. DPW	7849	0.141923
Thoroughfare	Shared Use Path	Prince am	Prince William Co. DPW	7831	1.349397
Town Of Dumfries Connector	Shared Use Path	Prince am	Prince William Co. DPW	7854	0.550611
Tri-County	Shared Use Path	Prince am	Prince William Co. DPW	7628	2.143055
University	Shared Use Path	Prince am	Prince William Co. DPW	7845	2.327782
University	Shared Use Path	Prince am	Prince William Co. DPW	7847	1.085112

Van Buren North	Shared Use Path	Prince am	Prince William Co. DPW	7822	2.561872
Waterway	Shared Use Path	Prince am	Prince William Co. DPW	7823	3.455857
Wellington	Shared Use Path	Prince am	Prince William Co. DPW	7642	6.752261
Welllington Road	Shared Use Path	Prince am	Prince William Co. DPW	7625	0.448334
Van Buren Street from W&OD to Monroe Street Bridge	Sidewalk	Fairfax	Town of Herndon	7888	1.060594
Creek Crossing Pedestrian Enhancements	Standard Bicycle Lane	Fairfax	Town of Vienna	7863	0.571051
Creek Crossing Pedestrian Enhancements	Streetscape/Pedestrian Improvements	Fairfax	Town of Vienna	7869	0.571051
Old Courthouse Road Trail	Shared Use Path	Fairfax	Town of Vienna	7905	0.372257
Boundary Channel Connection	Pedestrian Intersection Improvement	Arlington	VDOT	8487	0.433184
Braddock Road Multimodal Corridor Improvements	Pedestrian Intersection Improvement	Fairfax	VDOT	7972	3.031684
Frontier Drive from Franconia-Springfield Parkway to Loisdale Road	Bike Route Marking	Fairfax	VDOT	7922	0.560644
Herndon Parkway from W&OD Trail to Fairbrook Drive	Shared Use Path	Fairfax	VDOT	7944	0.450789
I-495 Express Lanes Ped/Bike at Idylwood Road (North)	Shared Use Path	Fairfax	VDOT	7874	0.263444
I-495 Express Lanes Ped/Bike at Idylwood Road (South)	Other	Fairfax	VDOT	7902	0.184012

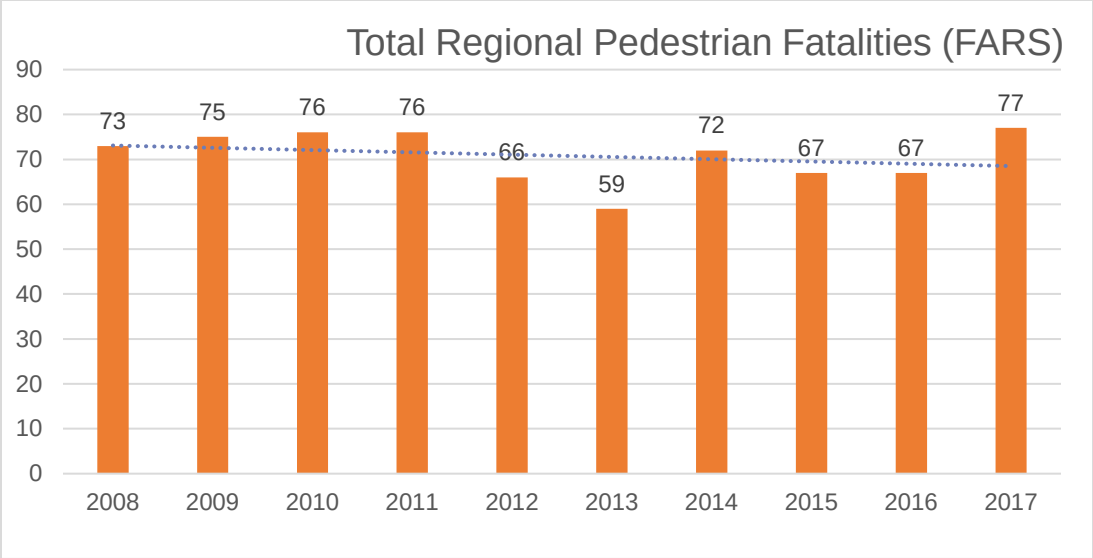
I-495 Tysons Ped/Bike Bridge South of Route 123	Sidewalk	Fairfax	VDOT	7952	0.842499
Monument Drive Bridge - Pedestrian Improvements	Sidewalk	Fairfax	VDOT	7909	0.242658
Poplar Tree Road - Bridge Widening	Pedestrian/Bicycle Bridge or Tunnel	Fairfax	VDOT	7926	0.833774
Rolling Road Widening Phase II - Viola Street to Old Keene Mill Road	Other	Fairfax	VDOT	7879	1.747481
Rosslyn Esplanade/Circle Improvements	Pedestrian Intersection Improvement	Arlington	VDOT	8488	0.162456
Route 29 Pedestrian Improvements from Nutley Street to Vaden Drive	Shared Use Path	Fairfax	VDOT	7936	0.363249
Route 7 Sidepath	Shared Use Path	Fairfax	VDOT	7397	11.517236
W&OD Trail Crossing at Lee Highway	Pedestrian/Bicycle Bridge or Tunnel	Arlington	VDOT	8483	0.065806
Wakefield Chapel Road Walkway	Sidewalk	Fairfax	VDOT	7925	0.137612

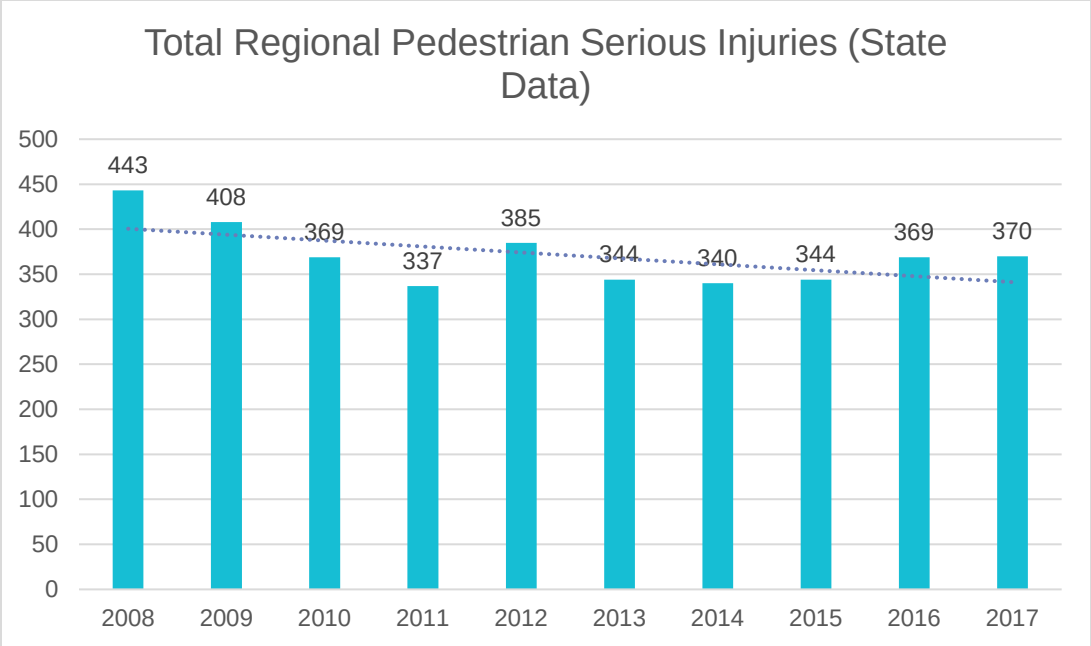
APPENDIX B: "DEEP DIVE" INTO PEDESTRIAN CRASHES IN THE WASHINGTON REGION

TPB carried out a study of traffic safety in the Washington region in 2019. The results relating to pedestrian crashes are summarized below.

The region had a stable number of pedestrian fatalities and serious injuries through 2017, but the 2018-2020 fatality numbers are worse. Historically the combined pedestrian and bicyclist fatalities were roughly one quarter of the total traffic fatalities, but now they are at 30%.

Figure 11: Regional Pedestrian Fatalities and Injuries




Total Regional Pedestrian Serious Injuries (State Data)
500
450
400
350
300
250
200
150
100
50
0
443
408
369
337
385
344
340
344
369
370
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017

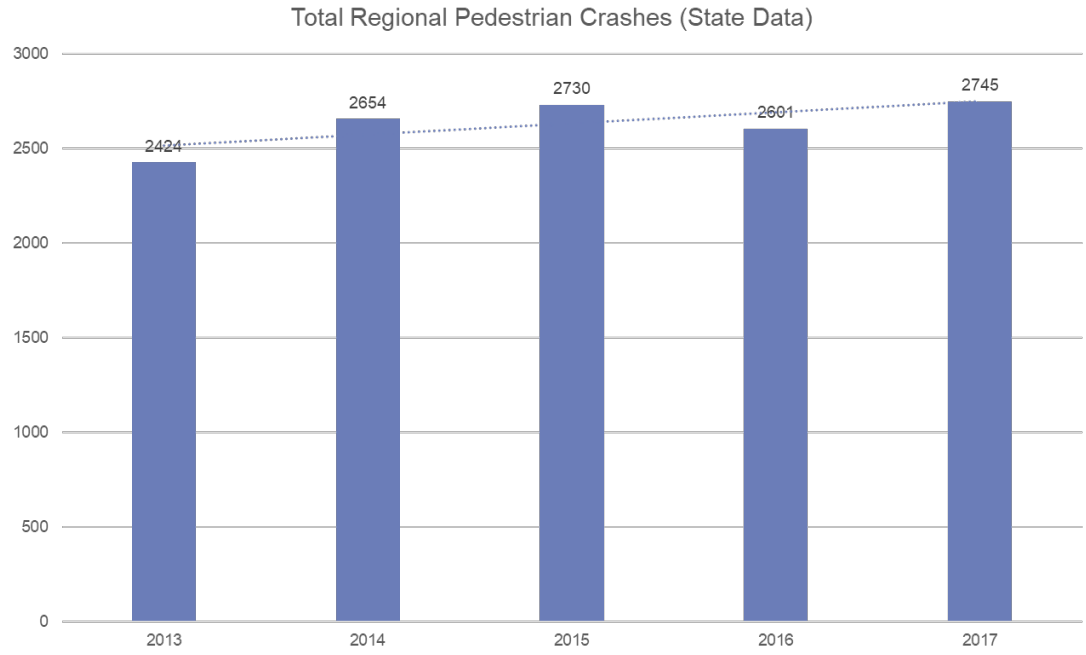

Total Regional Pedestrian Crashes (State Data)
3000
2500
2000
1500
1000
500
0
2424
2654
2730
2601
2745
2013
2014
2015
2016
2017

Table 13: Pedestrian Crash Severity

Pedestrian Crash Severity by Jurisdiction, 2013-2017			
Jurisdiction	Fatalities	Serious Injuries	Total Crashes
District of Columbia	50	399	5431
Charles County, MD	16	49	208
Frederick County, MD	7	36	284
Montgomery County, MD	56	318	2297
Prince George's County, MD	108	269	2156
Arlington County, VA	6	74	693
Fairfax County, VA	55	331	1024
Fauquier County, VA (urbanized area)	1	7	24
Loudoun County, VA	14	57	235
Prince William County, VA	20	96	299
Alexandria. VA	7	58	338
Fairfax City, VA	1	21	54
Falls Church, VA	0	13	30
Manassas, VA	1	39	74
Manassas Park, VA	0	0	7
District of Columbia	50	399	5431
Suburban Maryland	187	672	4945
Northern Virginia	105	696	2778
National Capital Region Total	**342**	**1767**	**13154**

The District of Columbia had the largest number of serious injuries and pedestrian crashes, while Prince George's the largest number of fatalities. Pedestrian activity is far more intense in DC than in Prince George's, but vehicle speeds are much higher in Prince George's.

Table 14: Pedestrian Injury Severity by Time of Day

Pedestrian Injury Severity by Time of Day			
Time of Day	National Capital Region		
	Fatalities	Serious Injuries	Total Crashes
Midnight - 0:59 a.m.	11	37	206
1:00 a.m. - 1:59 a.m.	13	35	161
2:00 a.m. - 2:59 a.m.	13	35	163
3:00 a.m. - 3:59 a.m.	7	31	131
4:00 a.m. - 4:59 a.m.	10	4	67
5:00 a.m. - 5:59 a.m.	15	29	187
6:00 a.m. - 6:59 a.m.	24	65	390
7:00 a.m. - 7:59 a.m.	12	85	623
8:00 a.m. - 8:59 a.m.	3	88	673
9:00 a.m. - 9:59 a.m.	7	57	543
10:00 a.m. - 10:59 a.m.	11	59	498
11:00 a.m. - 11:59 a.m.	8	64	547
12:00 p.m. - 12:59 p.m.	6	64	531
1:00 p.m. - 1:59 p.m.	5	68	588
2:00 p.m. - 2:59 p.m.	9	84	726
3:00 p.m. - 3:59 p.m.	11	107	872
4:00 p.m. - 4:59 p.m.	12	104	862
5:00 p.m. - 5:59 p.m.	12	151	1103
6:00 p.m. - 6:59 p.m.	25	166	1151
7:00 p.m. - 7:59 p.m.	26	137	911
8:00 p.m. - 8:59 p.m.	34	103	757
9:00 p.m. - 9:59 p.m.	33	99	632
10:00 p.m. - 10:59 p.m.	28	92	518
11:00 p.m. - 11:59 p.m.	18	65	311

Pedestrian injuries peaked during the evening rush hour, while deaths peak later, after 8 p.m.

Table 15: Pedestrian Injury Severity by Day of the Week

Pedestrian Injury Severity by Day of the Week			
Day of Week	National Capital Region		
	Fatalities	Serious Injuries	Total Crashes
Sunday	39	215	1272

Monday	41	277	1838
Tuesday	50	280	2076
Wednesday	51	278	2091
Thursday	66	249	2006
Friday	48	296	2183
Saturday	58	235	1688

October-December are the peak months for pedestrian fatalities, serious injuries, and crashes. October is pedestrian safety month.

Table 16: Pedestrian Injury Severity by Month

Pedestrian Injury Severity by Month			
Month	**National Capital Region**		
	Fatalities	**Serious Injuries**	**Total Crashes**
January	28	151	1162
February	28	136	929
March	27	145	984
April	23	149	1027
May	31	155	1101
June	23	150	1087
July	22	109	892
August	29	160	967
September	24	156	1117
October	40	180	1389
November	38	163	1242
December	40	176	1257

“Not at an intersection” is the most dangerous place to cross the street.

Table 17: Injury Severity by Pedestrian Location

Injury Severity by Pedestrian Location			
Pedestrian Location	**National Capital Region**		
	Fatalities	**Serious Injuries**	**Total Crashes**
Unknown	65	414	4270
Unmarked Crosswalk	6	54	386
Marked Crosswalk	61	536	3927
Sidewalk	7	33	252
In Roadway/Unmarked Midblock/Not at Intersection	197	675	3770
Median/Island	2	4	28
Outside Roadway	15	114	521

Figure 12: Pedestrian Non-Intersection Fatalities

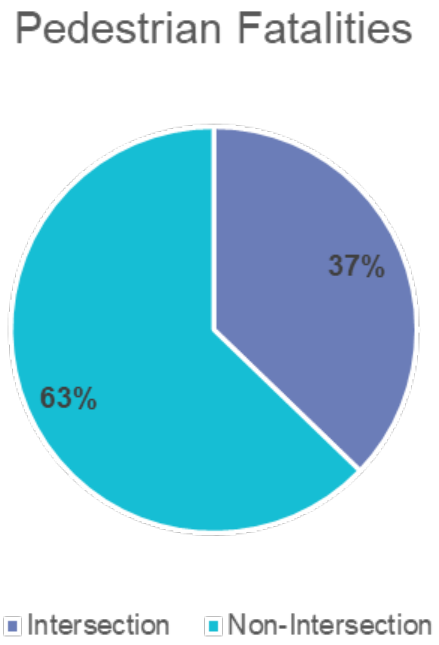


Table 18: Injury Severity by Pedestrian Age

Injury Severity by Pedestrian Age			
Pedestrian Age	TPB Region		
	Fatalities	Serious Injuries	Total Pedestrians in Crashes
Younger than 5	9	27	351
5-9	2	52	488
10-14	2	70	665
15-19	15	148	1088
20-24	28	205	1495
25-29	22	204	1584
30-34	30	145	1344
35-39	29	119	1057
40-44	20	94	828
45-49	24	132	905
50-54	33	129	928
55-59	33	114	843
60-64	35	104	766
65-69	13	80	490
70-74	20	48	314
75-79	16	39	216
80-84	10	14	119
Older than 84	10	25	147

Older pedestrians are much more likely to be killed if they are hit. It should be noted that the Washington region has a relatively young population, and these numbers are not adjusted for exposure. People over the age of 65 may be aware of their vulnerability and exercise greater caution in crossing, or avoid making dangerous crossings.

People aged 15-34 are heavily represented among pedestrian crashes, but are less likely to die when hit.

Table 19: Pedestrian Injury Severity by Lighting Condition

Pedestrian Injury Severity by Light Condition			
Light Condition	**National Capital Region**		
	Fatalities	**Serious Injuries**	**Total Crashes**
Dawn	7	41	245
Daylight	90	922	7443
Dusk	4	41	333
Dark (Lighted)	157	603	4033
Dark (Not Lighted)	86	188	716
Dark (Unknown Lighting)	4	22	128
Unknown	4	13	256

Far more crashes happen during daylight than at night, but the night-time crashes are much more likely to be fatal.

Table 20: Pedestrian Injury Severity by Functional Class

Pedestrian Injury Severity by Functional Class			
Functional Class	TPB Region		
	Fatalities	Serious Injuries	Total Crashes
Collector	38	288	2220
Expressway	10	40	250
Freeways	26	111	500
Major Arterial	146	674	4875
Minor Arterial	109	641	4650
Ramp	5	18	94

Major arterials are the most dangerous for pedestrians. They have the most crashes, and a higher likelihood of a fatal collision than a minor arterial.

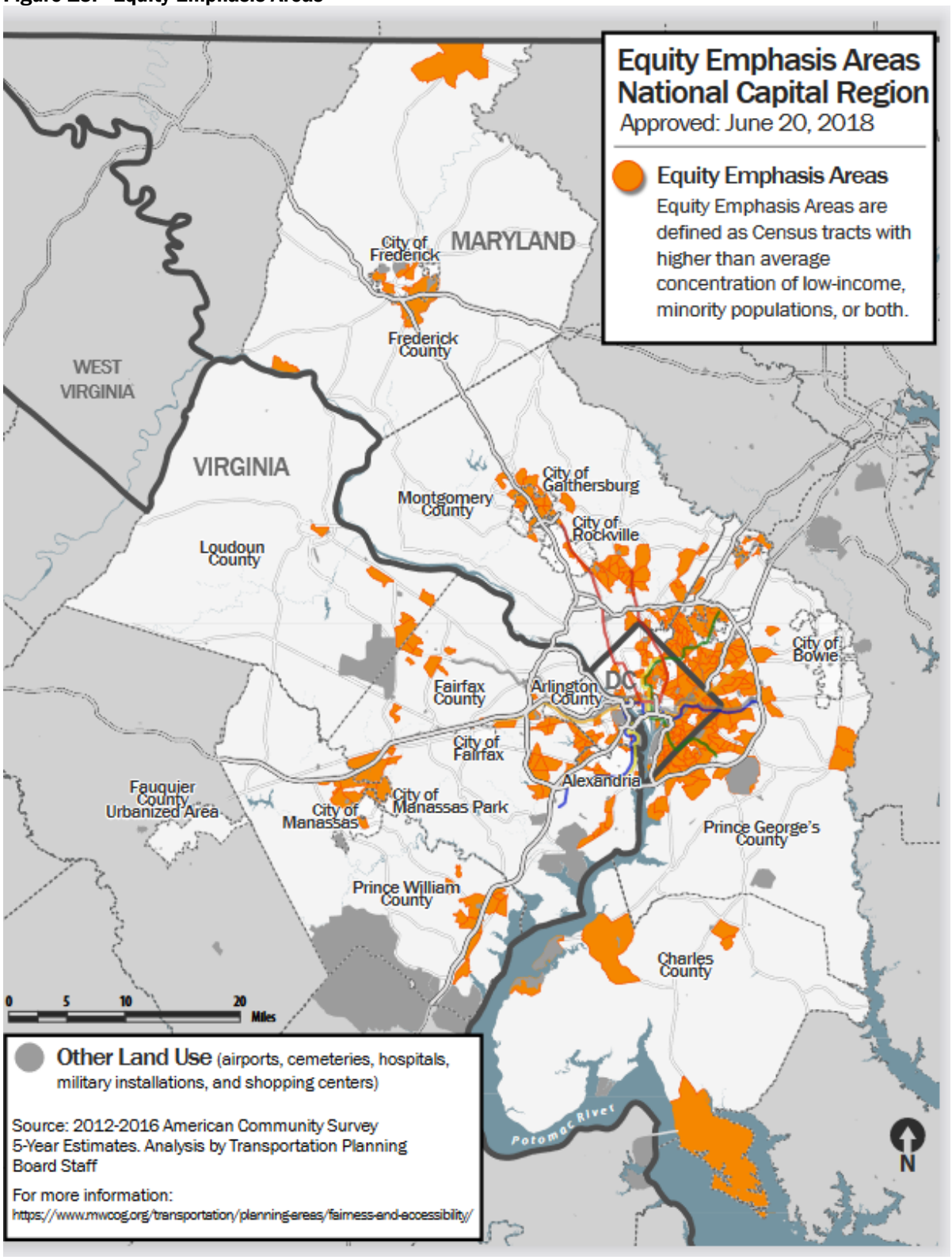
Safety in Equity Emphasis Areas

TPB defines equity emphasis areas as those containing high concentrations of low income and/or minority populations. These areas were approved by the Board in 2017, updated in June 2018 to reflect current census data.

The Equity Emphasis Areas contain 29 percent of the region's population yet they account for 34 percent of the region's fatalities. They have higher percentages of fatalities involving young drivers, pedestrians, crashes at intersections, and crashes on major arterials.

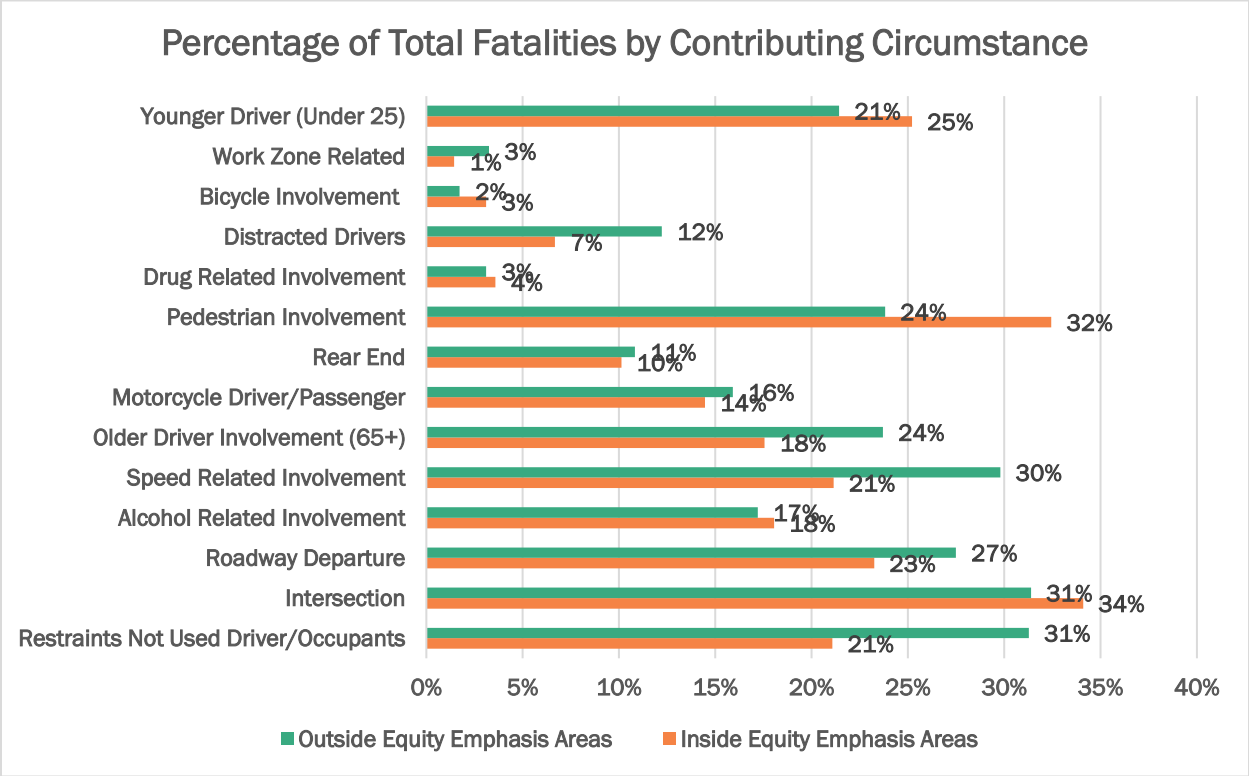
Not all categories of crash are more common in equity emphasis areas. Unbelted crashes, speeding-related crashes, and roadway departure crashes are more likely outside an equity emphasis area.

Figure 13: Equity Emphasis Areas



Equity emphasis areas have higher rates of pedestrian and bicycle crashes than areas outside of equity emphasis areas.

Figure 14: Fatalities by Contributing Circumstance



APPENDIX C: MODE OF ACCESS TO METRORAIL

Major Modes of Access, by Walk Mode of Access, All-Day
2016 WMATA Rail Passenger Survey

Station	Dropped off	Drove alone	Metrobus	Oth. bus	Bike	Shuttle	Taxi/ Ride Share	Walk
CAPITOL SOUTH	0%	2%	2%	1%	0%	0%	1%	93%
FEDERAL CENTER SW	1%	3%	2%	0%	0%	0%	0%	93%
MT VERNON SQUARE 7TH ST-CONVENTION CENTER	1%	3%	2%	0%	0%	0%	0%	91%
COURT HOUSE	2%	3%	2%	1%	0%	0%	0%	90%
NAVY YARD-BALLPARK	1%	2%	4%	1%	0%	1%	0%	90%
JUDICIARY SQUARE	2%	5%	1%	0%	0%	0%	0%	90%
WATERFRONT	1%	3%	4%	0%	0%	0%	0%	89%
FEDERAL TRIANGLE	1%	5%	2%	1%	0%	0%	0%	88%
U STREET/AFRICAN-AMERICAN CIVIL WAR MEMORIAL/CARDOZO	1%	1%	8%	0%	0%	0%	0%	88%
FARRAGUT NORTH	1%	3%	4%	1%	0%	1%	0%	88%
VIRGINIA SQUARE-GMU	4%	5%	1%	0%	1%	0%	0%	88%
CLEVELAND PARK	3%	4%	4%	0%	0%	0%	0%	87%
NOMA-GALLAUDET U	1%	2%	4%	1%	1%	1%	0%	87%
WOODLEY PARK-ZOO	1%	3%	5%	2%	1%	0%	0%	86%
METRO CENTER	1%	4%	3%	2%	0%	0%	0%	86%
ARCHIVES-NAVY MEMORIAL-PENN QUARTER	1%	6%	5%	1%	0%	0%	0%	86%
MCPHERSON SQUARE	1%	4%	7%	0%	0%	1%	0%	86%
FOGGY BOTTOM-GWU	1%	3%	6%	1%	0%	1%	0%	85%
GALLERY PLACE-CHINATOWN	2%	3%	6%	1%	0%	0%	0%	85%
FARRAGUT WEST	1%	4%	7%	1%	0%	1%	0%	85%
SMITHSONIAN	2%	5%	2%	2%	0%	1%	0%	85%

Station	Dropped off	Drove alone	Metrobus	Oth. bus	Bike	Shuttle	Taxi/ Ride Share	Walk
ARLINGTON CEMETERY	0%	1%	3%	1%	1%	5%	0%	84%
EASTERN MARKET	1%	2%	8%	1%	1%	0%	0%	84%
CLARENDON	3%	4%	3%	3%	1%	0%	1%	83%
DUPONT CIRCLE	1%	2%	9%	1%	0%	2%	0%	82%
SHAW-HOWARD UNIVERSITY	2%	3%	11%	0%	1%	0%	0%	81%
VAN NESS-UDC	3%	4%	10%	1%	1%	0%	0%	80%
COLUMBIA HEIGHTS	1%	1%	13%	1%	0%	6%	0%	76%
CRYSTAL CITY	3%	3%	7%	2%	0%	4%	0%	75%
STADIUM-ARMORY	3%	5%	15%	0%	0%	0%	1%	74%
L'ENFANT PLAZA	2%	5%	4%	4%	0%	4%	0%	74%
BALLSTON-MU	4%	6%	11%	2%	1%	3%	0%	72%
EISENHOWER AVENUE	12%	9%	2%	1%	1%	4%	0%	71%
ROSSLYN	5%	3%	7%	6%	0%	6%	0%	71%
GREENSBORO	14%	11%	2%	0%	1%	1%	0%	70%
MEDICAL CENTER	3%	3%	7%	6%	1%	7%	0%	70%
GEORGIA AVE-PETWORTH	3%	3%	22%	1%	0%	0%	1%	69%
FRIENDSHIP HEIGHTS	5%	6%	14%	2%	1%	1%	0%	68%
POTOMAC AVENUE	1%	4%	22%	3%	0%	0%	0%	68%
BETHESDA	5%	9%	5%	8%	1%	2%	0%	67%
KING STREET-OLD TOWN	5%	2%	7%	12%	2%	4%	1%	65%
BRADDOCK ROAD	8%	3%	12%	7%	3%	4%	0%	62%
Total	4.2%	11.1%	10.9%	3.7%	0.6%	2.4%	0.4%	62.0%
SPRING HILL	12%	4%	5%	10%	1%	4%	0%	62%
WHITE FLINT	7%	14%	6%	6%	2%	2%	1%	61%
PENTAGON CITY	4%	7%	10%	1%	0%	12%	1%	61%
TYSONS CORNER	8%	5%	11%	12%	0%	3%	1%	58%
SILVER SPRING	4%	6%	18%	7%	1%	1%	0%	58%
BROOKLAND-CUA	6%	5%	18%	1%	0%	10%	1%	58%
UNION STATION	1%	3%	4%	1%	0%	1%	0%	58%
TENLEYTOWN-AU	5%	8%	12%	3%	1%	13%	0%	56%
TAKOMA	9%	8%	10%	14%	2%	0%	0%	55%
BENNING ROAD	7%	5%	31%	1%	0%	1%	1%	53%
TWINBROOK	5%	27%	7%	5%	1%	1%	0%	51%

Station	Dropped off	Drove alone	Metrobus	Oth. bus	Bike	Shuttle	Taxi/ Ride Share	Walk
MCLEAN	13%	14%	7%	3%	2%	7%	1%	50%
MINNESOTA AVENUE	3%	8%	42%	0%	0%	0%	0%	46%
FOREST GLEN	13%	27%	2%	3%	1%	0%	0%	46%
WHEATON	10%	23%	16%	3%	0%	0%	0%	45%
PRINCE GEORGE'S PLAZA	5%	18%	22%	1%	2%	6%	0%	43%
WEST HYATTSVILLE	10%	16%	22%	2%	4%	0%	1%	42%
CONGRESS HEIGHTS	6%	13%	37%	0%	0%	0%	0%	41%
DUNN LORING-MERRIFIELD	9%	30%	6%	2%	2%	8%	1%	40%
DEANWOOD	7%	20%	25%	0%	0%	1%	0%	39%
RONALD REAGAN WASHINGTON NATIONAL AIRPORT	2%	3%	6%	2%	0%	5%	1%	37%
ROCKVILLE	12%	17%	7%	14%	1%	2%	0%	37%
PENTAGON	2%	4%	42%	8%	0%	2%	1%	37%
RHODE ISLAND AVENUE-BRENTWOOD	5%	7%	45%	1%	0%	1%	1%	37%
GROSVENOR-STRATHMORE	8%	41%	3%	7%	2%	0%	0%	33%
EAST FALLS CHURCH	15%	21%	17%	3%	3%	4%	1%	31%
MORGAN BLVD	16%	34%	4%	8%	1%	1%	2%	30%
FORT TOTTEN	8%	9%	46%	1%	1%	1%	1%	29%
CAPITOL HEIGHTS	12%	26%	23%	5%	1%	0%	1%	27%
SUITLAND	5%	31%	31%	3%	0%	0%	1%	26%
HUNTINGTON	7%	39%	8%	10%	1%	7%	0%	24%
NAYLOR ROAD	12%	19%	40%	5%	0%	1%	0%	21%
COLLEGE PARK - U OF MD	10%	27%	10%	7%	4%	15%	1%	20%
WEST FALLS CHURCH-VT/UVA	10%	37%	12%	8%	2%	5%	0%	20%
ANACOSTIA	2%	8%	65%	2%	1%	1%	0%	19%
CHEVERLY	16%	37%	19%	2%	0%	0%	0%	19%
VIENNA/FAIRFAX-GMU	10%	42%	6%	15%	1%	5%	0%	16%
ADDISON ROAD	11%	33%	34%	4%	0%	2%	1%	13%
VAN DORN STREET	9%	15%	9%	18%	1%	31%	2%	12%

Station	Dropped off	Drove alone	Metrobus	Oth. bus	Bike	Shuttle	Taxi/ Ride Share	Walk
WIEHLE-RESTON EAST	12%	34%	8%	26%	2%	5%	1%	11%
GLENMONT	13%	45%	12%	7%	1%	0%	1%	11%
LARGO TOWN CENTER	15%	51%	12%	3%	0%	1%	1%	10%
BRANCH AVENUE	14%	54%	12%	2%	0%	0%	1%	9%
SOUTHERN AVENUE	7%	31%	44%	2%	0%	1%	1%	9%
LANDOVER	6%	48%	23%	6%	0%	2%	2%	7%
SHADY GROVE	9%	42%	9%	20%	1%	7%	0%	7%
GREENBELT	11%	48%	20%	3%	2%	4%	1%	7%
FRANCONIA-SPRINGFIELD	10%	55%	6%	10%	2%	4%	1%	6%
NEW CARROLLTON	11%	52%	19%	1%	0%	1%	1%	6%

APPENDIX D: GLOSSARY OF TERMS

BICYCLE LANE (BIKE LANE) A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists. Consists of a 4'-6' lane in each direction, with bicycle traffic moving in the same direction as motorized traffic.

BICYCLE PATH (BIKE PATH) A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or within an independent right of way.

BICYCLE PARKING An area dedicated and designed specifically for storing and locking a bicycle. Includes bicycle racks and bicycle lockers.

BICYCLE ROUTE (BIKE ROUTE) A segment of a system of bikeways designated by the jurisdiction with appropriate directional and informational markers, with or without specific bicycle route numbers.

BIKE CORRAL A bike corral transforms a standard parking lane or curbside zone into bike parking, typically by placing bike racks in the space, and using with flexiwands and curb stops to discourage conflicts with automobiles. Often used in areas with narrow and/or busy sidewalks.

BIKE SHARING Short-term bicycle rental available at a network of unattended locations.

BIKE STATION A staffed, enclosed bicycle parking facility, usually located at a transit center, which may offer such services as bicycle repair, rental, lockers, and showers.

BIKEWAY Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless or whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

BUFFERED BIKE LANE Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

COMPLETE STREETS Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street

CYCLE TRACK (Protected Bike Lane) A bicycle-only facility that provides physical separation within the right of way from vehicle travel lanes.

CLASS I, II or III BIKEWAY Terms sometimes used to describe different types of bicycle facilities. Class I is a shared-use path, Class II a bicycle lane, and Class III a shared roadway. However, Since there is some disagreement on the exact meaning of these terms, the AASHTO terms (listed above) should be used.

GREENWAY A linear park or recreation facility of limited width, located along the length of an existing or former public utility or railroad right-of-way, or along a stream bed.

HIKER-BIKER TRAIL A paved path designed for use by both pedestrians and bicyclists, which is completely separated from vehicular traffic.

METROPOLITAN STATISTICAL AREA A core area containing a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core. Metropolitan statistical areas comprise one or more entire counties. They are used by the United States Census for the purpose of tabulating, enumerating and publishing data.

RAILS-TO-TRAILS CONSERVANCY A national membership organization that works to facilitate the acquisition of abandoned railroad lines for use in creating bicycle and pedestrian trails and linear parks.

RAIL-TRAIL A Shared-Use Path, either paved or unpaved, built within the right-of-way of an existing or former railroad.

REGIONAL ACTIVITY CENTER A set of locations within the National Capital Region Transportation Planning Board planning area identified by the Council of Government's Planning Director's Technical Advisory Committee as employment centers of regional significance. Five types of Regional Activity Center have been designated, with different employment and residential density criteria for each.

REGIONAL ACTIVITY CLUSTER An employment center adjacent to a Regional Activity Center, with a lower density than a Regional Acitivity Center

ROAD DIET A road diet is a technique whereby a road is reduced in number of travel lanes and/or effective width in order to achieve systemic improvements. An example of a road diet would be the conversion of two travel lanes in each direction to a 3-lane section with one travel lane in each direction, optional bicycle lanes, and a two-way turn lane in the middle.

SHARED ROADWAY A roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes, or road with paved shoulders.

SHARED-USE PATH A bikeway, at least 8' in width, physically separated from motorized vehicular traffic by an open space or barrier and either within the highway

right-of-way or within an independent right-of-way. Shared-Use Paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. Also called a multi-use path.

SHARROW A shared-lane marking or sharrow is a street marking used to indicate the recommended position and direction of travel for the bicyclist.

SIDE-PATH A shared-used path built within the right-of-way of a non limited-access highway.

SIDEWALK The portion of a street or highway right-of-way, at least 4' in width, designed for preferential or exclusive use by pedestrians.

SIGNED SHARED ROADWAY A shared roadway that has been designated as a referred route for bicycle use using warning, directional, and informational signage.

TRAFFIC CALMING Traffic calming is a way to design streets, using physical measures, to encourage people to drive more slowly.

TRAVELED WAY The portion of a roadway for the movement of vehicles, exclusive of shoulders.

UNIFORM VEHICLE CODE The standards for traffic regulations recommended for adoption by state and local jurisdictions, as prepared by the National Committee on Uniform Traffic Laws and Ordinances.

APPENDIX E: GLOSSARY OF ACRONYMS

AASHTO	American Association of Highway Transportation Officials
ADA	Americans with Disabilities Act
AFA	Access for All Advisory Committee
CLRP	Financially Constrained Long-Range Transportation Plan
CMAQ	Congestion Mitigation and Air Quality Improvement Program
COG	Metropolitan Washington Council of Governments
DDOT	District of Columbia Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
MAP-21	Moving Ahead for Progress in the 21st Century Act
MDOT	Maryland Department of Transportation
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MTA	Maryland Transit Administration
MUTCD	Manual on Uniform Traffic Control Devices
NACTO	National Association of City Transportation Officials
NCPC	National Capital Planning Commission
NVTC	Northern Virginia Transportation Commission
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: Legacy for Users
MDSHA	Maryland State Highway Administration
SOV	Single-Occupant Vehicle
SRTS	Safe Routes to School
TCSP	Transportation and Community and System Preservation Pilot Program
TEA-21	Transportation Equity Act for the 21st Century
TIP	Transportation Improvement Program
TPB	National Capital Region Transportation Planning Board
US DOT	U.S. Department of Transportation
VDOT	Virginia Department of Transportation
VMT	Vehicle-Miles Traveled
WABA	Washington Area Bicyclist Association
WMATA	Washington Metropolitan Area Transit Authority

APPENDIX F: LINKS AND RESOURCES

Alexandria Rideshare
www.alexride.org

BikeArlington
www.bikearlington.com

Arlington bicycle information.

BikeWashington
www.bikewashington.org

Bike trails and routes in the Washington region, clubs, and organized rides.

Capital Bikeshare
www.capitalbikeshare.com/

Regional self-service bicycle rental.

Capital Trails Coalition
https://www.capitaltrailscoalition.org/

Advocacy coalition for a regional trail network. Staffed by the Washington Area Bicyclist Association.

Coalition for Smarter Growth
www.smartergrowth.net

An advocacy group for transit-oriented development in the Washington region.

Fairfax Advocates for Better Bicycling
http://www.fabb-bikes.org/

Advocacy Group for bicycling in Fairfax County, VA. ‘

League of American Bicyclists
www.bikeleague.org

LAB is a national cycling advocacy group founded in 1880.

National Center for Bicycling and Walking
www.bikewalk.org

A national advocacy group for walking and bicycling.

Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, D.C. 20002
(202) 962-3200
www.mwcog.org
www.commuterconnections.org

Metropolitan planning organization. Offers ridematching and Guaranteed Ride Home services through its Commuter Connections program, publishes a Bike to Work Guide.

National Association of City Transportation Officials
www.nacto.org/

An association of big city transportation officials oriented towards "smart growth" principles.

National Complete Streets Coalition
www.completestreets.org/

Advocacy group for "complete streets", or provision of pedestrian and bicycle facilities as part of all transportation projects.

Pedestrian and Bicycle Information Center
www.bicyclinginfo.org
www.walkinginfo.org

National clearinghouse for information on walking and bicycling.

Rails to Trails Conservancy
https://www.railstotrails.org/

A national advocacy organization for trails.

Ride the City
www.ridethecity.com/dc

A bicycle route finding web site.

Safe Routes to School
www.saferoutesinfo.org

The Safe Routes to School programs enables community leaders, schools and parents across the United States to improve safety and encourage more children, including children with disabilities, to safely walk and bicycle to school.

United States Access Board
www.access-board.gov

A federal agency dedicated to design that is accessible to persons with disabilities.

Virginia Bicycling Federation
www.vabike.org

Advocacy group for Virginia bicycling.

WalkArlington
www.walkarlington.com

Arlington walking information.

Washington Area Bicyclist Association
www.waba.org