

## Overview

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. On the other hand, many activity centers, not originally designed with pedestrians in mind, have grown dense enough in 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 are Walking*

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.

## Shared-Use Paths

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, often 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 190 miles of major shared-use path, 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 [www.bikewashington.org](http://www.bikewashington.org).

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

### **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 must be at least eight feet wide, and in that they 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.

Side-paths meet the need for a separated pedestrian facility, as well as providing separation from traffic valued by child and slow-moving cyclists, especially in places where the road has speeds of 40 mph or more and high traffic volumes. 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.



### **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.<sup>1</sup> Under the new routine accommodation policy, VDOT is to provide adequate facilities for pedestrians and bicyclists even if not called for in the local plan.

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 multi-use path.

### **Bicycle Lanes**

Bicycle lanes are marked lanes 4-6 feet wide in the public right-of-way that are by law exclusively or preferentially for use by bicyclists. Bike lanes are marked with bicycle symbols and arrows, which indicate the correct direction of travel. 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.



The number of bicycle lanes is growing rapidly. The District of Columbia currently has 19 miles of bicycle lanes, up from three in 1995, and Arlington County has 20 miles, up from three in 1995, and Montgomery County has 17 miles.<sup>2</sup> The regional mileage of bicycle lanes can be expected to expand significantly in the future as the District of Columbia, Arlington County, and Montgomery County all have ambitious plans to build more bicycle lanes. A map of regional bicycle paths,

lanes, and on-road routes can be ordered at [www.adcmap.com](http://www.adcmap.com).

### **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-

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<sup>1</sup> *Northern Virginia Regional Bikeway and Trail Network Study*. November, 2003. Virginia Department of Transportation, Northern District Office. Page 19.

<sup>2</sup> *Countywide Bikeways Functional Master Plan*, March 2005. Maryland-National Capital Park and Planning Commission. Page 12.

friendly features such as paved shoulders, a wide curb lane, or low traffic volumes or speeds *may* be present.

### **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, and the American Discovery Trail. 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 percent open for public use, it will span 2,600 miles from Calais, Maine to Key West, Florida. With the exception of the National Capital Mall, the proposed route through the Washington region is not yet signed. Bicycle Route 1 is part of a national network of low-traffic road routes promoted by the Adventure Cycling Association. 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 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.

### **Bridges**

Currently the southernmost opportunity for cyclists and pedestrians to cross the Potomac is at the 14<sup>th</sup> Street Bridge. When the Woodrow Wilson Bridge project is finished, bicyclists and pedestrians will be able to cross the Potomac on the capital beltway at Alexandria. The Memorial Bridge, the Theodore Roosevelt Bridge, the Key Bridge, and the Chain Bridge all have bicycle and pedestrian facilities. To the north cyclists and pedestrians may use the ferry at White's Ferry, which connects Montgomery County and Loudoun County. Cyclists may use the US 15 bridge at Point of Rocks and the MD 17 bridge at Brunswick to get cross between Frederick County and Loudoun County, though they have no separated facilities.

On the Anacostia river separated bicycle and pedestrian facilities of uneven quality are available on the South Capitol Street (Frederick Douglas Memorial) bridge, the 11<sup>th</sup> Street bridge, the Pennsylvania Avenue Bridge, the East Capitol Street Bridge, and the Benning Road Bridge. The District of Columbia plans to upgrade these crossings as the Anacostia waterfront is developed.

## **Bicycles and Public Transit**

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

### **Rail**

Bicycles are allowed on Metrorail at any time except weekdays from 7 to 10 a.m. and 4 to 7 p.m., and Fourth of July. No permit is required. Only folding bicycles fully enclosed in a carrying case are permitted on MARC and VRE. Folding bicycles are allowed on Metrorail during rush hour if fully enclosed.

Bicycle racks or lockers are available at most Metrorail stations. Table 3-1 in appendix G shows the number of lockers and rack spaces at each metro station. As of April, 2004 WMATA had 1,141 locker and 1,183 rack bicycle parking spaces at Metrorail stations. Racks are first-come, first served.<sup>3</sup>

All VRE stations and most MARC stations have bicycle racks.

### **Bus**

Metrobuses all have racks on the front that carry not more than two bicycles. No permit is required. Information on how to use bus bike racks is available at [www.waba.org](http://www.waba.org). Folding bicycles are not allowed inside Metrobuses.

Montgomery County Ride-On, Arlington Transit, and Annapolis Transit buses are all equipped with bicycle racks, as are many Maryland Transit Administration buses.

### **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.

### **Pedestrian Access to Transit**

82% of Metrobus passengers walk to transit, and 60% of all Metrorail trips start with the passenger walking to the rail station. However, the quality of pedestrian access to Metrorail and Metrobus is uneven. Many suburban rail stations were built with an

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<sup>3</sup> Details on bicycle parking locations and locker rental can be found at <http://www.wmata.com/Metrorail/bikeracks.cfm>



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, the MWCOG's Walkable Communities Workshops, the efforts of the Bike Parking Work Group of the Bicycle and Pedestrian Subcommittee, and efforts in Fairfax County and Montgomery County to improve bus stop safety. WMATA is developing a new 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 is completing an inventory of existing conditions at bus stops in the region and will have an integrated list of conditions in 2007.

### **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 and dual facilities for pedestrians and bicyclists will become more common.