

Employee Guide

BICYCLING TO WORK

in the Washington Metropolitan Region



 **COMMUTER CONNECTIONS.**
A SMARTER WAY TO WORK

COMMUTERCONNECTIONS.ORG



About This Guide

This guide is designed to ease the transition to bicycle commuting for Washington metropolitan area employees. The flip side of this guide is focused on employers.

Why bicycle to work?

- Biking to work costs less than driving, especially if you already own a bike.
- Bicycling allows you to stay active and healthier while you commute.
- People who bike to work arrive invigorated and work off the day's stress on the way home.
- Biking to work means less traffic congestion and better air quality.



“When I initially started biking to work I was intimidated with distances, but after starting I found that it is never too far.”

**—Sterling Stone,
Gearin’ Up Bicycles**

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How to get started

Here are some suggestions to help you ease into bicycle commuting:

- Try a practice run on a weekend to find a good route and see how long it takes. See center of this guide for bike maps and routing.
- Find a co-worker or friend who bikes and commute together.
- Start by bicycling just one day a week.
- Drive part of the way and bike the rest.
- If you don’t own a bike, use Capital Bikeshare, or dockless bike sharing. www.capitalbikeshare.com.
- Bike to the nearest transit location and secure your bike for the day, or take it with you on bus or rail (see page 10 for more details about bikes on transit).
- Take a class with the Washington Area Bicyclist Association (WABA). Classes include Learning to Ride, Basic Skills, and City Cycling. www.waba.org.

Safely Riding in Traffic

Riding in traffic is not as hard as it looks if you follow the suggestions below.

Be predictable

Ride so drivers can see you and predict your movements.



Obey all regulatory signs and traffic lights

Bicyclists must follow the same rules of the road as drivers of other vehicles.



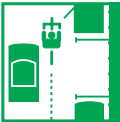
Never ride against traffic

Motorists aren't looking for bicyclists riding on the wrong side of the road or on the sidewalk. Ride with traffic.



Use hand signals

Hand signals tell motorists what you intend to do. Signal as a matter of law, courtesy, and self-protection.



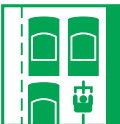
Ride in a straight line

Whenever possible, ride in a straight line at least a car door width away from parked cars.



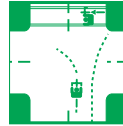
Don't weave between parked cars

Don't ride out to the curb between parked cars unless they are far apart. Act in a predictable manner.



Take the lane in slow traffic

Ride in the middle of the lane whenever you are moving at the same pace as traffic.



Choose the best way to turn left

There are two ways to make a left turn: (1) Look behind, signal, move into the left lane and turn left. (2) Ride straight to the far-side crosswalk. Walk your bike across.



Avoid or go slow on sidewalks

Pedestrians have the right of way on walkways. Bicyclists should always give pedestrians audible warnings when passing. In some cases local ordinances do not permit bicyclists on sidewalks. (see page Employee-4).

Bicycling with buses

Avoid blind spots and remain visible to the bus operator. Keep in mind that buses operate in a unique manner compared to other vehicles. Buses make frequent stops and pull in and out of traffic from the right lane. Cyclists should not pass a bus on the right as passengers board and de-board from the curb.

Be Lawful

Obey traffic laws whether in a car, on a bike, or on foot.

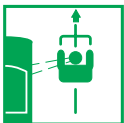
Be alert

Ride defensively, watch the traffic, and be prepared to react.



Watch for cars pulling out

Make eye contact with drivers. Assume they don't see you until you are sure they do.



Scan the road behind you

Learn to look back over your shoulder without losing your balance or swerving left. Some riders use rear-view mirrors.



Avoid road hazards

Watch out for parallel-slatted sewer grates, slippery manhole covers, oily pavement, gravel, pot holes, and ice. Cross railroad tracks carefully at right angles. For better control as you move across bumps and other hazards, stand up on your pedals.



Keep both hands ready to brake

You may not stop in time if you brake one-handed. Allow extra distance for stopping in the rain, as brakes are less efficient when wet.

Be equipped



Wear a helmet

Always wear a helmet whenever you ride a bicycle. Helmets dramatically reduce the risk of head injury in a bicycle accident.



Use lights at night

Always use a strong head light and tail light at night and when visibility is poor.

Bicycle Safety

The Street Smart program raises awareness about traffic safety in the Washington, DC region when bicyclists and pedestrians cross paths with each other and with motor vehicles. The program also works with local police to enforce relevant laws. www.beststreetsmart.net

Trail Etiquette

- Stay to the right except when passing.
- Travel at a reasonable speed in a consistent and predictable manner.
- Always look ahead and behind before passing.
- Pass slower traffic on the left; yield to oncoming traffic when passing.
- Give a clear warning signal before passing (ring bell and say "passing on the left").
- Move off the trail when stopped, to allow others room to pass.
- Yield to others when entering and crossing the trail.
- Use a light and reflectors after dusk and before dawn; most trails are not lit.
- Stop for traffic where the trail crosses a road.

Bicyclist Education

One of the best ways to learn how to be safe and confident while cycling in traffic is to take a bicycling class, www.waba.org.

© Safety icons courtesy of Metro Regional Services, Portland, Oregon.

Select Bicycle Rules in the Washington Area

	District of Columbia	Maryland	Virginia
Bicycle Position	No specific provision for bicyclist position, except that slower moving traffic should drive to the right.	When slower than other traffic, bicycle as close to the right as safely practicable, except when turning left, passing, avoiding pedestrians or road hazards, when the right turn lane is right turn only, or on a one-way street. Does not apply in lanes too narrow to share with a motor vehicle.	When slower than other traffic, bike as close to the right as safely practicable, except when turning left, passing, avoiding hazards or traffic in mandatory turn lane, or traveling on a one-way street. Does not apply in lanes too narrow to share with motor vehicle.
Passing Cars	Bicyclists may pass other vehicles on the left or right side, staying in the same lane as the overtaken vehicle, or changing to a different lane, or riding off the roadway, as necessary to pass with safety.	Pass on left; not required to pass on left on one-way street or when passing vehicle turning left.	Bicyclists may pass another vehicle on the right or left, and they may stay in the same lane, change lanes, or ride off the road if necessary for safe passing.
Bicycling Two Abreast	Permitted when it does not endanger bicyclists or impede traffic.	Permitted when it does not endanger bicyclists or impede traffic.	Permitted when it does not impede traffic.
Turning Left	From two-way to two-way streets; enter and leave intersection near center line of roadway. One-way to one-way; keep as close as practicable to left curb.	From two-way to two-way streets; enter and leave intersection near center line of roadway. One-way to one-way; keep as close as practicable to left curb.	A cyclist may turn like a motorist, or use the crosswalk like a pedestrian.
Turning Right	-	Stay as close as practicable to right-hand curb.	Stay as close as practicable to right-hand curb.
Restricted Roads	Prohibited from expressways. Bicyclists also allowed in bus lanes.	Prohibited from expressways, toll bridges, toll tunnels, and other marked roads.	Prohibited from interstate and where signed on controlled access highways.
Cycling on Sidewalks	Allowed except in the central business district, which is bounded by 23rd St. NW, Massachusetts Ave., 2nd St. NE-SE, D Street SE to 14th Ave NW, and Constitution Ave NW to 23rd St.	Banned except where allowed by local ordinance. Allowed in Montgomery County except the City of Gaithersburg. Allowed in the City of Frederick outside the historic district.	Allowed except where prohibited by local jurisdictions, such as Alexandria. Required to ride on side paths in Manassas.
Mandatory Use of Bike Paths and Lanes	Not required.	Use of bike lanes required when available. No required use of separated paths. Must use paved shoulder when speed limit is over 50 mph.	Not required.
Helmets	Required for cyclists aged 15 and under.	Required for cyclists aged 15 and under.	Required 14 & under in Arlington, Fairfax, Prince William Counties; Alexandria, Falls Church, Leesburg, Manassas, Manassas Park, and Vienna.
Lights	Front light and rear reflector required when dark.	Front light and rear reflector required when dark.	White front light required when dark. Red rear light & reflector required when dark on roads posted for 35 MPH or higher.

Bicycle Basics

You don't have to be a mechanic to commute by bike, but you should make sure your bicycle is in good working order and safe to ride.

1) Air: Tires lose a little air every day. If your gauge says a tire is more than five pounds under the needed pressure (printed on the side of the tire), add air. No gauge? Push each tire hard against a curb. If you can flatten it, add air.

2) Chain: A dry chain can lock up or break suddenly. If your chain squeaks when you pedal or it hangs up when you pedal backward, lubricate the chain. Oil will do, but it attracts dirt; a greaseless chain lubricant is best.

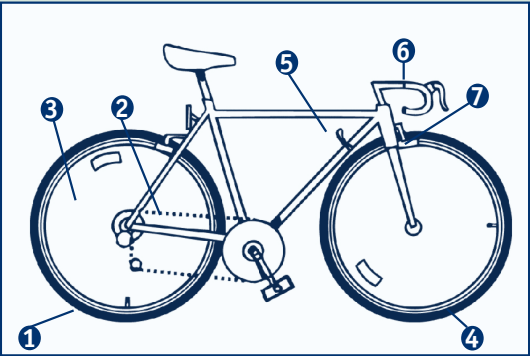
3) Wheel Spin:

Lift each wheel up and give it a slow spin. (Spin the back wheel forward so the pedals don't move.) If the wheel won't spin by itself or stops suddenly, see whether it's rubbing against the brake pads, frame, or something else. If the wheel's not rubbing, the problem might be the axle or hub.

4) Tires: Turn each wheel very slowly and look for big cuts, bulges, bubbles, or places you can see the inner casing. If you spot any, replace the tire. Remove glass or other debris. If the valve stem doesn't point straight at the middle of the wheel, the rim might cut it; let the air out and straighten the valve.

5) Shifting: Try all of your gears, shifting each gear lever from high to low. You have a problem if the lever sticks, you can't shift to all gears, the chain rubs the derailleur, or the chain jumps off the gears. These are usually caused by worn or dirty cables, or a derailleur that needs cleaning or adjustment.

6) Handlebars: Hold the front tire between your legs and try to turn the handlebars. If they're loose, tighten the stem bolt.



7) Brakes: You should adjust or replace the brake cable or pads if you have any of these problems: (a) when you apply the brake on each wheel, one or both brake pads don't

touch the rim;
(b) you can squeeze your brake lever all the way to the handlebars;
(c) on each wheel, the brake can't stop the tire from moving on dry, clean pavement.

8) Loose Parts: Pick up the bike and shake it hard. Check and fix anything that rattles.

Excerpted from "Urban Bikers Tricks and Tips" by Dave Glowacz.

Outfitting Your Bike

Bicycle Fit

Proper bike fit is important. A bicycle that's too large or too small is difficult to control and can lead to discomfort or injury. As a general rule for road bicycles, you should have at least one inch of clearance between the top tube and your crotch as you stand astride the bike. Clearance should be approximately two inches for a hybrid or cross bike and three to four inches for a mountain bike. Ask your bike shop for help fitting your bike.

You don't have to spend a lot of money on gear, but certain accessories can make bike commuting safer and more enjoyable. Prioritize spending on safety-related items. Keep in mind that you get what you pay for, and since bike commuting is very economical, you will save money in the long run. Think about your needs, talk to friends and staff at your local bike shop and read objective equipment reviews.

Headlights & Taillights

Headlights are required by law for night riding. Taillights are a good addition to the rear red reflector. Lights vary greatly in their quality of construction, mounting design, amount of light supplied and duration. Battery powered headlights can be either rechargeable or non-rechargeable, both have advantages. In general, rechargeable headlights are brighter but also cost more up front. Consider lights that do not require any batteries and are magnet or dynamo powered.

Don't be intimidated by all the gear. Start with the basics and learn what you need to be safe and comfortable as you go. Most bike commuters start with just a bike, a helmet, a lock, and a back pack.

Tools

It's a good idea to carry a basic tool kit with a small set of allen wrenches, a tire patch kit, and tire levers. Flat tire repair is often featured in videos available online. Products such as puncture resistant tires, tubes and tire liners can help prevent flats. Inquire at your local bike shop. Including a rag in your tool kit can help you stay clean in the event of a mechanical problem.

Fenders

Fenders help in wet conditions. They nearly eliminate spray from your wheels, keeping you drier, cleaner, and more comfortable.

Mirrors

Some cyclists use mirrors to keep track of traffic behind them. Mirrors come in two basic types: head-mounted and bar-mounted. Although mirrors can help you keep tabs on traffic, they are not a substitute for looking behind you before changing lanes.

Hauling Items

There are practical ways to haul items such as laptops, work files, extra clothes, etc. for daily commuting; or items carted for personal trips to the store for groceries and other purchases. Various methods include the use of messenger bags, backpacks, baskets, racks, and panniers. Each has its own advantage and there are many styles and sizes available, depending on your needs.

Other Accessories

Some other basic and useful accessories include a bike pump to inflate tires, and a simple bike bell to let pedestrians and slower vehicles know you're approaching. Any water bottle will do, but insulated water bottles will keep water cool in the warmer months. Lastly, while not basic, a smartphone holder mounted to your handlebars is a nice feature for following bike routing directions.

Outfitting Yourself

Helmets

Using a helmet is recommended as it can reduce the chance and severity of injury, and may even save your life, if properly sized, adjusted, and consistently worn. Here are some important points about helmet use:

- The helmet should fit snugly and be worn level on your head. If tilted back, it will not protect your head. Side straps should meet in a 'V' below your ear lobes.
- Bicycle helmets are designed to withstand one crash only. Structural damage is not always visible, so always replace a helmet that has been in a crash and never buy used helmets.
- Light or fluorescent-colored helmets make you more visible to motorists, as does reflective tape applied to your helmet.
- You cannot predict when a crash is going to occur, so wear your helmet every time you ride, no matter how short the trip.

Visible Clothing

Wearing bright clothing or accessories (e.g. reflective arm/leg bands, vests) can help make up for the fact that drivers often are not used to scanning for objects smaller than cars. In daylight conditions, fluorescent or light-colored items are very visible; but at night, reflective items are most visible.

Bike Shorts

Cycling shorts reduce friction and provide cushioning. For short commutes, they may not be necessary.

Rain Gear

Riding in the rain is possible, and rain gear makes it easier. Look for breathable fabric, as non-breathable fabric can cause you to overheat and sweat. "Pit-zips" in the jacket allow perspiration to evaporate. An inexpensive waterproof poncho, while not breathable fabric, allows good ventilation. Rain pants should be long enough to cover the top of your footwear to help keep your feet dry. The cuffs of the pants should cinch snugly against your ankles to keep them from getting snagged on anything, such as your bike's chainrings.

Footwear

Ideal cycling footwear is stiff-soled and comfortable to walk in. Some cyclists use special shoes, but common footwear such as light hiking boots, sneakers, or even dress shoes may suffice. Weatherproof booties fit over most footwear.

"Biking to work allows me to combine exercise, transportation, and relaxation.

For me, it takes the same amount of time as transit or driving"

**—Rodges Ankrah,
Arlington**



"Biking provides me choices I don't have with other forms of transportation; I decide my own pace and route and can choose to sprint or take it easy and unwind and enjoy the trip. Regardless of pace, I am always more relaxed after I get off my bike."

—Lizzy McErlean, Arlington

Cold Weather Clothing Tips

Cycling, like all exercise, warms you up. In cold weather, put a thin, wicking layer against your skin to keep yourself dry. Then use an insulating layer on top of that. Finally, if needed, a wind or rain jacket. Make sure the jacket has full front zippers and/or pit-zips to allow for ventilation. Your head, hands, and feet tend to get colder faster than the rest of your body. Ear warmers and thin, knit head coverings and gloves allow you to cycle comfortably in cold weather. Avoid cotton, which loses its ability to insulate when wet. Synthetics or wool keep you warm when wet, and dry more quickly.

Office Clothes

Cycling in partial or full office attire is often feasible, especially if your trip is relatively short or you maintain a moderate pace. Even in summer, it is seldom very hot in the early morning. You could also buy a garment bag that attaches to a bicycle, and change when you get to work. Rolling clothes instead of folding is a great way to reduce wrinkling. Some health clubs offer "runner's" memberships, where for a reduced rate, you can use the showers and the locker rooms. You could bring in an extra set of work clothes or have them cleaned near work. If your office has a casual day, use that as your first day for bicycling to work.



Bicycle Security

Nothing is theft-proof and no locking system is perfect, but you can take steps to ensure that your bike is a less-attractive target to a thief:

- Check to see if your office has secure bicycle parking.
- Consider where and how long your bike must be parked when deciding how to secure it. If possible, keep your bicycle in your office or in a secured room at your workplace.
- If your bike must be parked outside, lock your frame and both wheels to an immovable object. Don't lock your bike to an object that can be easily unbolted, bent, cut, or removed. Pick a well-traveled, lighted place; thieves don't like working in exposed areas. Use more than one lock if practical.
- Consider leaving your heavy U-lock at work, locked to the bike parking rack. Carry a light cable lock with you for quick errands, and use both locks at work.
- When not in use, cable locks can be wrapped around the seat post and U-locks can often be carried on a rear rack or bracket.
- Take all easily removed accessories with you when leaving your bicycle unattended.

Bikeshare

Capital Bikeshare has 5,000 bikes at 600+ stations in DC; Arlington, Fairfax, Montgomery, and Prince George's Counties; and the Cities of Alexandria and Falls Church. Choose from a single trip, day pass, 30-day, or annual membership.
www.capitalbikeshare.com.

VeoRide is College Park's bike share system, offering electric and pedal bikes on the UMD campus and around the City of College Park and Town of University Park.
www.veoride.com/university-of-maryland.



Dockless bikesharing is different from fixed-station systems such as Capital Bikeshare. Bicycles are GPS-equipped and are located and unlocked through an app. Fees are charged per minute and there is typically a nominal start fee. Each jurisdiction regulates and manages their own dockless bikesharing programs through private company contracts.

Bicycles and Transit

Metrorail



Bicycles are welcome on Metrorail during all hours. Board using the doors at either ends of the railcar (not center doors). Bikes are not allowed on crowded railcars, special events, or other days where high ridership is expected. www.wmata.com/service/bikes Thousands of bike lockers and racks are available. Email bikelocker@wmata.com.

Metrobus and Local Bus Systems

Heavy-duty racks mounted to the front of each bus will transport your bicycle. Racks can accomodate two bikes.

MARC

Full-sized bicycles are welcome on all trains. The exterior of each train's designated bike-friendly railcar will have either a green bicycle decal or an illuminated green light. www.mta.maryland.gov/bike



VRE

Full-sized bicycles are welcome on mid-day trains, and the last three northbound/southbound trains. www.vre.org, click on Service Information, then Onboard Policies.





Park & Ride Lots

Many area Park & Ride Lots have bicycle racks and some have lockers. 27% have some form of bicycle parking facilities. For more information contact the appropriate county rideshare office or call Commuter Connections (800)-745-RIDE.

For an online Park & Ride map visit www.commuterconnections.org. Click on Commuter, then Ridesharing.

For bicycle lockers at Virginia Park & Ride Lots call (703) 383-2233.



We'll get you home. Guaranteed.

What if I need to get home in an emergency?

The Commuter Connections Guaranteed Ride Home Program provides emergency rides home to people who bicycle or take other alternative transportation to work twice a week in the Washington/Baltimore metro areas. Register at www.commuterconnections.org. *Some restrictions apply.*



How to Encourage Your Employer to Support Bicycling to Work

You're now well versed in the ways of bike commuting, but you would like to see a few changes at your office to assist you and your colleagues who might like to bike to work. Flip to the other side of this guide to learn about sound investments and policies employers can use to encourage cycling, improve employee health, and save money. Here are some ideas to get you started:

- Show this guide to your human resources representative and building manager.
- Organize a bike-to-work day at your office (see page Employer-7).
- Call the Washington Area Bicyclist Association, (202) 518-0524, or the Metropolitan Washington Council of Governments, (202) 962-3760 and ask about setting up a bike to work orientation at your work site.
- Use online bicycle routing websites for turn-by-turn directions, listed in the centerfold of this guide.
- Ask your employer to offer a subsidy for bicycling.



"Some folks that don't bike to work tell me they think it's 'cool' that I do, but how they could never do it themselves. It's not necessarily 'cool' as much as it's just really practical and fun. As long as you're safe and stay alert, anyone can do it."

**— Lia Seremetis,
DC Bike Party founder**

Resources for Employers and Employees

Active Prince William

www.activepw.org

Bike Arlington

www.bikearlington.com

Bike Loudoun

www.bikeloudoun.org

Bike Maryland

www.bikemaryland.org

Bike Washington

www.bikewashington.org

Capital Trails Coalition

www.capitaltrailscoalition.org

Fairfax Advocates for Better Bicycling

www.fabb-bikes.org

Frederick Bicycle Coalition

www.bikefrederick.org

Frederick Pedalers

www.frederickpedalers.org

League of American Bicyclists

www.bikeleague.org

Metro

www.wmata.com/bike

Nat'l Hwy Traffic Safety Administration

www.nhtsa.gov/bicycle-safety

Northern Virginia Regional Commission

www.sharevaroads.com

Potomac Pedalers

www.potomacpedalers.org

Virginia Bicycling Federation

www.vabike.org

Washcycle

www.thewashcycle.com

Washington Area Bicyclist Association

www.waba.org

Washington Area Bike Forum

www.washingtonareabikeforum.com

Bicycle Planners

Alexandria, VA..... (703) 746-4160

Arlington County, VA..... (703) 228-3709

City of Fairfax, VA..... (703) 385-7589

City of Falls Church, VA..... (703) 248-5041

Council of Governments (202) 962-3760

College Park, MD (240) 487-3541

District of Columbia..... (202) 741-8520

Fairfax County, VA (703) 877-5625

Frederick City, MD..... (301) 600-1884

Frederick County, MD (301) 600-7402

Gaithersburg, MD (301) 258-6313

Loudoun County, VA..... (571) 258-3526

Maryland Department of Transportation..... (410) 545-5656

Montgomery County, MD (301) 495-2191

National Park Service..... (202) 619-6347

Prince George's County, MD (301) 883-5687

Prince William County, VA (703) 792-8041

Rockville, MD (240) 314-8527

Washington Metropolitan Area Transit Authority..... (202) 962-1027

Virginia Department of Transportation..... (703) 259-2753

Area Bicycle Maps

Alexandria Bikeways Map

www.alexandriava.gov/goalex

Arlington County Bicycle Map

www.BikeArlington.com/maps-and-routes

Capital Crescent Trail Map

www.cctrail.org

District of Columbia Map

www.goDCgo.com/bike

Fairfax County Bicycle Map

www.fairfaxcounty.gov/transportation/bike/map

Maryland State Bicycle Map (410) 545-5656

Montgomery County Bicycle Map (240) 777-7223

TrailLink

www.trailink.com

Virginia State Bicycle Map

www.virginiadot.org/bikemap

W&OD Trail Map (703) 729-0596

Washington DC Regional Bike Map

www.commuterconnections.org/commuters then select "Bicycling"

List of Bicycle Parking Equipment Dealers & Manufacturers

American Bicycle Security Co.

www.ameribike.com

BikeLid Systems LLC

www.bikelid.com

Bike Security Racks Co.

www.bikeracks.com

Cora Bike Rack Inc.

www.cora.com

Cycle Safe Inc.

www.cycle-safe.com

Dero Bike Rack Co.

www.dero.com

eLock Technologies

www.bikelink.org

Madrax Inc.

www.madrax.com

Peak Racks

www.peakracks.com

Saris

www.sarisparking.com

Sunshine U-Lok Corporation

www.sunshineu-lok.com

Urban Accessories, Inc.

www.urbanaccessories.com

Bike Sharing

Capital Bikeshare

www.capitalbikeshare.com

Veo

www.veoride.com/umid

Bike Stations

Metro

www.wmata.com/bike

Bikestation DC

ddot@dc.gov Use subject line "Bike Center"

Bike Rental

Bike and Roll

www.bikeandrolldc.com

Bicycle Routing Sites

Car Free A to Z

www.carfreeatoz.com/planner

Commuter Connections

www.commuterconnections.org

Google

www.google.com/maps

Map My Ride

www.mapmyride.com/routes

Ride the City

www.ridethecity.com

Acknowledgments

Martin Gутtenplan, "Developing Successful Bicycle Pedestrian Commuter Programs: A Handbook for Employers."

Energy Outreach Center and the Capital Bicycling Club, of Olympia, Washington, "Bicycle Commute Guide."

COG/TPB Bicycle and Pedestrian Subcommittee.



For electronic version of this guide and for information on all types of alternative commuting throughout the Washington region, contact COG's Commuter Connections program at (800) 745-RIDE, www.commuterconnections.org

Employer Guide

BICYCLING TO WORK

in the Washington Metropolitan Region



 **COMMUTER CONNECTIONS.**
— A SMARTER WAY TO WORK

COMMUTERCONNECTIONS.ORG



About This Guide

Cycling is a clean, fun, inexpensive, and healthy way for your employees to get to work. Thousands of DC area employees commute by bicycle each day. This guide is designed to ease the transition to bicycle commuting for Washington area employees. The flip side of this guide is geared toward employees.

Why Your Employees Should Bike To Work?

Reduced Health Care Costs

According to the Centers for Disease Control, moderate physical activity (such as bicycling to work) saves 5 to 12 percent in annual medical costs, compared with a 6.5 percent savings from employees who don't smoke. The fitness program at General Electric's Aircraft Engine unit saves an estimated \$540,000 annually, including 760 fewer hospital days per year.

Decreased Absenteeism & Turnover

A study by the National Center for Health Statistics found that physical activity is one of the few factors that have a statistically significant effect on absenteeism. Physically fit employees are absent an average of two fewer days per year.

Increased Productivity

Bicyclists and walkers arrive at work with less stress than those who commute by automobile. The Berkeley Wellness Letter reports that chronic exposure to traffic congestion produces an increase in baseline blood pressure, lowering of frustration tolerance, increases in negative mood, and aggressive driving habits. In contrast, bicyclists and walkers often report feeling relaxed and more alert after arriving at work, ready for a more productive day.

Reduced Parking Costs

Between 6 and 20 bicycles can be parked in the space a motor vehicle requires. It is not unusual for employers to spend over \$60 per employee per month for a parking spot. At over \$800 per year per employee, considerable savings can be achieved when employees use alternative means of getting to work.

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Auto Parking vs. Bicycle Parking Average Cost Comparison

Auto Parking for 12 employees	Bike Parking for 12 employees
Initial cost of 12 parking spaces: \$40,000 - \$180,000	Cost of 12 bike rack parking spaces (\$1,300) and one auto space (\$3,300-\$15,000): \$4,600-\$16,300
Initial Savings for Bicycle Parking: \$35,400-\$163,700	
Average yearly cost for maintenance and taxes for 12 parking spaces: \$9,000	Marketing, incentives and bike commuter program costs per year: \$3,900 Maintenance and taxes for 12 bike rack parking spaces \$1,000 Total Costs: \$4,900
Average Yearly Savings for Maintenance/Taxes: \$4,100	

By placing bicycle lockers in areas not usable for parking or office space, the savings can be increased.

How to Support Bicycling to Work

1. Appoint a Bicycle Coordinator

A fitness/wellness coordinator, employee transportation coordinator (ETC), or someone who currently bikes to work are the logical people to head a bicycle commuter program. The most important attributes are enthusiasm and an interest in cycling. With assistance from the Washington Area Bicyclist Association, the coordinator can evaluate facilities and identify safe routes to your work place. This employee can devote a few hours a month to launch and monitor a bike to work program.

The Calvert Group, an investment company located in Bethesda, believes that investing in their employees is just as important as investing in socially responsible mutual funds. Employees who bike to work are provided with a one time \$500 reimbursement toward the cost of a bicycle purchase.

“As socially responsible investors, we ask companies to regularly look at their sustainability footprint, and feel we must do the same. Our innovative transportation benefits including our bike reimbursement are consistent with our commitment to walk our talk.”

—Kathy Torrence
VP of Corporate Social Responsibility and Community Partnership Calvert Group

2. Provide Bicycle Parking

Employees need to know their bicycles are safe while they work. Good bike parking is:

- Clearly labeled
- Accessible and well lit
- Located as close to the building entrance and shower facilities as possible
- Sheltered from the elements
- Located where there are people or security personnel or in a locked room
- If it is impractical to provide good bike racks or lockers, consider allowing employees to keep bicycles in their offices or in a locked storage room.

While planning the relocation of its headquarters office, the U.S. Environmental Protection Agency made sure to ask for bike facilities. EPA bike commuters worked with the architects and GSA to design a state of the art bike room with space for 100 bikes as well as locker rooms with showers.

Bicycle Lockers

Lockers are generally the most secure and weatherproof means of bicycle storage. Prices range from \$1,000 to \$2,500 per bike, including installation. Materials range from plastic to metal to particle board. Bike lockers are not efficient users of space compared to bike racks and cages. Since not every bicycle commuter will ride every day, assigned lockers are usually under-utilized on any given day. Lockers are not usually recommended for indoor or garage use.



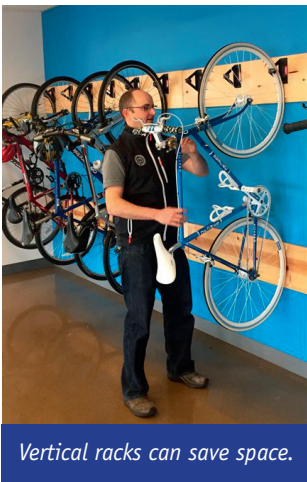
Racks

Installing a rack in a covered, locked compound or storage room can provide excellent security. Some racks allow you to store bikes vertically to save space. Racks in an unsecured area should be highly visible.

Even if you provide long-term bicycle parking such as bike lockers or cages, racks should be provided near the entrance for visitors, couriers, and employees who wish to bike to the worksite occasionally.

Bike Rooms and Cages

Usually located in the basement or on the ground floor, a bike cage is a fenced off secure area for bike storage. By installing a key or combination lock to access the cage or room, only those who bike to work will have access. Gym lockers can be included to store helmets and other cycling gear. Rooms and cages provide more security than racks alone and usually cost less than bike lockers. Since parking spaces inside the cage are typically not reserved, far more people can be served.



Vertical racks can save space.



Shelter

Most bicyclists are not willing to leave a good bicycle exposed to the elements. Covering outdoor racks with a simple shelter or locating them under an existing covered area can increase the number of days employees will bike to work.

Guidelines For The Correct Number of Parking Facilities

Surveying your employees will help determine the amount of parking your company will need. Some communities have ordinances governing the number of bicycle parking spaces employers must provide. In the District of Columbia, 5% of all off-street office and commercial parking spaces must be for bicycles.

3. Provide On-Site Amenities

Sponsor Capital Bikeshare

In addition to making it easier for employees to use their own bicycles, employers can sponsor Capital Bikeshare to give employees access to thousands of bicycles at hundreds of stations in DC; the Cities of Alexandria and Falls Church; and Arlington, Fairfax, Montgomery and Prince George's Counties. www.capitalbikeshare.com

Employers can choose to:

- Become a corporate member, allowing discounts to employees.
- Sponsor an existing station
- Sponsor a new station
- Sponsor the entire service

Arlington Guidelines

- One employee space for every 7500 square feet.
- One visitor space for 20,000 square feet.
- Two customer spaces for every 10,000 square feet of retail.
- One shower per gender for every 50,000 square feet.

Winrock International is a Crystal City based nonprofit with approximately 90 employees. This bicycle friendly business understands the health benefits of biking, both physical and mental, and places great value on being able to offer great benefits to its employees, including a pre-tax bike benefit, bike storage within the office suite, showers and lockers, and a range of educational materials. Winrock also offers employees a Capital Bikeshare corporate membership. www.winrock.org

Showers

Some employees will not consider biking to work without the assurance that they can shower when they arrive. Showers also allow employees to exercise at lunch. In buildings with 50-100 employees, one shower should be sufficient. In buildings with 100-250 employees, one shower for each gender should be provided. Buildings housing over 250 employees should provide at least four showers with two of them being accessible to the disabled. The accompanying table shows typical shower installation costs.



Shower Costs	One stall one room	Two stalls one room
Tie into vent & exhaust	\$ 4,300	\$ 4,400
Waterproof wall	\$ 3,200	\$ 5,300
Tiling	\$ 3,000	\$ 5,700
Plumbing	\$4,000	\$ 4,800
Total	\$14,500	\$20,300
	Two rooms, One stall each	Two rooms, Two stalls each
Tie-in to vent & exhaust	\$ 4,400	\$ 4,600
Waterproof wall	\$ 5,300	\$ 10,100
Tiling	\$ 5,700	\$ 11,100
Plumbing	\$ 4,800	\$ 7,600
Total	\$20,200	\$ 33,400

Based on 2015 figures, not including any framing or demolition.

Lockers

Ideally, there should be one secure gym locker available to store work clothes for every long-term bicycle parking space provided. In addition to providing a locker to each regular bicycle commuter, other lockers should be available to encourage potential new bike commuters. These facilities will also encourage lunch-time fitness activities which benefit both the employee and the employer.

4. Provide Incentives

The primary incentives to encourage bicycling and walking to work are showers, lockers, and secure bicycle parking. Here are some others:

- Offer flex-time schedules. Make it possible for bicycle commuters to arrange their work schedules to avoid peak-hour traffic congestion and darkness.
- Permit a more relaxed dress code on specified days.
- Provide a company-owned pool of bicycles or access to Capital Bikeshare's fleet of bicycles for short business trips, errands, and recreation.
- Offer financial help to purchase a bicycle or accessories.
- Give cash to bicyclists for part or all of the parking spaces they do not use if your business subsidizes parking. (See Parking Cashout, page Employer-9)
- Allow bicycle commuters time to shower or freshen-up.
- Tell employees about the Commuter Connections *Guaranteed Ride Home* program. It provides free emergency rides home to those who bicycle or take other alternative transportation to work. To sign up, visit www.commuterconnections.org or for questions call 1-800-745-RIDE.
- Recognize bicyclists at company-wide functions with certificates or T-shirts emphasizing bicyclists' environmental or health awareness.
- Award points to employees for bicycling to work. These points can accumulate and be redeemed for cash or prizes.
- Provide free or subsidized membership to a gym within walking distance. Employees who bike to work can use those facilities to shower and change clothes.

Opower, a software company based in Arlington, has employees who bike to work year round. The company is flexible about when bicyclists may arrive at the office. Opower provides bike racks on all floors, as well as lockers and showers in the building. They even bring in bike mechanics to help employees keep their bicycles in shape. www.opower.com

5. Promote Your Program

- Promote the bicycle program and facilities at your workplace. Reserve a bulletin board and newsletter space for bicycle related information. Often employees are unaware of the programs and facilities available to them. Once they know about them, they are more likely to use them.
- Publicize the bicycle commuter program outside the workplace to enhance your company's profile in the community, and to use it as a recruitment tool. Use press releases, interviews, and social media to make the local news outlets aware of your organization's program. Become involved locally in bicycle issues and events.
- Hold workshops on bicycle commuting, maintenance, safety and other biking and walking topics during lunch hour. Call WABA to schedule a workshop (202) 518-0524.
- Designate a person to coordinate bicycle commuter concerns and organize an employee biking club. Members can coordinate routes and help new bicyclists and walkers. Provide participating employees with club T-shirts displaying the company logo.
- Organize a company-wide "Alternative Transportation Day" to encourage commuters to try bicycling, walking, carpooling, vanpooling, or transit. Commuter Connections can help, 800-745-7433 or www.commuterconnections.org.

How to Organize a Bike to Work Day



1. Appoint a Bike to Work Day coordinator.
2. Provide funds for food and prizes.
3. Publicize your Bike to Work Day through a company intranet, newsletter, email, fliers, etc.
4. Hold a morning event with breakfast for Bike to Work commuters.
5. Hold drawings for prizes.
6. Give special recognition for longest distance biked, oldest/most interesting bicycle, bicyclist who came from transit station farthest from work.
7. Make information available about company provisions for bicycle parking, changing and shower facilities for employees.
8. Provide copies of this guide; call (800) 745-RIDE for free copies.
9. Issue a Bike to Work Day challenge to a neighboring employer or among departments.

6. Find Out About Cycling Conditions Near Your Work Site

- Contact your local city or county planning agency and ask if the streets surrounding your site are bike compatible (wide curb lanes, bike lanes, trails or low traffic/low speed streets). See list of area bicycle planners on the center resources page.
- Contact WABA to help identify good routes to and from your site. Also use the bicycling routing websites listed on the center resource page.

Funding for Bicycle Programs

The District Department of Transportation (DDOT) Bicycle Program offers free help and bicycle racks by request. DDOT will help you select, locate, and install racks in your garage or on your surface lot. In fact, DDOT will even pay for the racks if you agree to pay for the installation! DDOT will also supply a free bicycle parking sign for your facility. For more information contact the Bicycle Program Manager at 202-741-8520 or karen.mcalister@dc.gov, or go to www.ddot.dc.gov/service/bicycle-parking.



"Two years ago, I reacquainted myself with bike commuting and rode to my Alexandria office. I loved every second of it, and wondered why I ever stopped? Bicycling is faster than transit, cheaper, and I don't need to spend time and money at a health club. Plus it helps me clear my head. With Capital Bikeshare, bikes capable of any weather condition are available year-round."

—Richard Williams, Alexandria

LEED Certification

The U.S. Green Building Council's Leadership in Energy and Environmental Design or LEED rating system provides certification for green buildings. Employees that bike can help contribute to LEED certification points for the building. Points can also be gained by providing shower facilities, lockers, or racks for bicyclists.

Parking Cash Out: A Tax Free Benefit For Bicycle Commuters

Employees who bike, walk, or take transit often have a parking spot they don't use. A 1998 change in the federal tax law allows employers to pay employees the cost of that space and avoid paying a tax on this benefit. For example: Employees at Company X receive parking benefits worth \$100 a month. Employees can either keep the parking spot, receive a tax free transit benefit, or receive \$100 a month extra of taxable income in his or her paycheck. For more information call (800) 745-RIDE, or visit www.commuterconnections.org. Click on Employers; Overview of Services; Parking Management.

"Bike commuting helps address both traffic congestion and the parking shortage in downtown D.C. Our new bike room at Metro Square provides employees with secure, convenient bike parking and eliminates the need to bring bikes into the building's lobby and elevators."

**—Jeff Nokes,
Senior Property Manager,
Boston Properties.**

Negotiate Bicycle Facilities In Your Lease

When you renew your lease, ask building owners to install bicycle facilities, including a new Capital Bikeshare station. They can then market these amenities to prospective tenants and save on parking spaces. If there's a gym within walking distance of your office, it may be cheaper and/or more practical to pay the gym to allow your employees to use their facilities.



Federal Employees

The federal government is the largest employer in the Washington area with over 364,000 employees. In 1993, Congress passed the Federal Employees Clean Air Incentives Act which encourages alternative commuting at federal worksites. According to the Act, Public Law 103-172, "The head of each agency may establish a program to encourage employees of

such agency to use means other than single-occupancy vehicles to commute to or from work [including] furnishing space, facilities or services to bicyclists." Each agency must report on the progress of their program (number of racks, lockers, etc.) every two years.

Why Bicycling to Work is Good for Your Employees

- 1. Provides Fitness.** Biking to work is one of the best all-round exercises and it doesn't put as much strain on the knees and ankles as running.
- 2. Strengthens Lower Back.** Lower back pain is a common cause of visits to physicians, second only to the common cold. Bicycling exercises the small muscles that surround the spine which are important in keeping the back strong and preventing injuries.
- 3. Keeps Minds Young.** A report from the Baltimore Longitudinal Study of Aging has shown that exercise helps maintain mental agility.
- 4. Creates Free Time.** Employees can save time by combining exercise and commuting.
- 5. Increased Longevity.** Health benefits from bicycling to work outweigh the traffic safety risk by a factor of 20 to 1.





Washington Area Bicycling Facts:

According to the Commuter Connections 2019 State of the Commute Survey:

- 16% of all commuters live less than five miles from work.
- The average bike commute is 4.2 miles each way, and 24 minutes.
- The average number of days per week for bicycle commuting is 3.3.
- Rates of men and women who walk/bike as their primary commute mode are female: 3% and male: 4%.
- Bike/walk as primary commute mode based on State of Residence: District of Columbia 17%, Maryland 1%, and Virginia 2%.
- 22% of respondents said their employers offered support services for bicyclists and walkers.
- 66% of bicyclists and walkers are satisfied with their commute, compared to 22% who drive alone.

According to the 2018 US Census American Community Survey:

- Bike commuting in the urban core is growing fast, tripling since the 2000 Census.
- 0.9% of work trips in the greater Washington region are by bicycle, up from 0.3% in 2000.
- The District has the highest bike commute mode share at 4.2%, followed by Arlington at 1.5%, and Alexandria at 1.0%.

Bike to Work Day May 2019 Washington Region Event Survey

- The Bike to Work Day event increases bicycle commuting- 13% of survey respondents said they never commuted by bicycle before participating in the annual event.
- The Bike to Work Day event expands the frequency of bicycle commuting- 23% of survey respondents said they started or increased bicycling after participating in the event.

Bicycle Counts

Bicycle Counts from automated counters on major trails and some streets in Arlington, Alexandria, the District of Columbia, and Montgomery County can be found at www.bikearlington.com/counter-data. Using the Counter Dashboard, counts may be found by date, time period, and more.



For additional copies of this guide call Commuter Connections at (800) 745-RIDE, or see the online version at www.commuterconnections.org.

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