The TPB vision calls for a transportation system that allows convenient and safe bicycle and pedestrian access, with dynamic regional activity centers and 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 series of recommended best practices for consideration by the member jurisdictions. Many of the member jurisdictions have already implemented some or all of these recommendations.

## A. Enhance agency efforts to incorporate bicycle and pedestrian elements in all jurisdictional planning and design policies.

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

The Virginia Department of
Transportation (VDOT) is
committed to routinely
accommodating bicycling and
walking "as fundamental travel
modes and integral components...in
the planning, funding, design,
construction, operation, and
maintenance of Virginia's
transportation network"

- 2. Consistent with federal policy, establish bicycle and pedestrian ways in all new construction and reconstruction transportation projects in urbanized areas unless one or more of three conditions are met:
- a. Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, a greater effort may be necessary to accommodate bicyclists and pedestrians elsewhere within the right of way or within the same transportation corridor.

b. The cost of establishing bikeways or walkways would be excessively disproportionate to the need or probable use. Excessively disproportionate is defined as exceeding twenty percent of the cost of the larger transportation project.

- c. Where sparsity of population or other factors indicate an absence of need.
- 3. Take into account likely future demand for bicycling and walking facilities in planning transportation projects and do not adopt designs that would preclude future improvements.



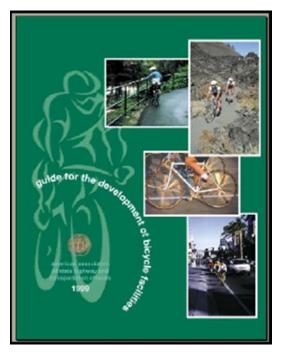
- 4. Encourage public participation by bicyclists and pedestrians and other community groups in the planning process.
- 5. Ensure adequate funding for bicycle and pedestrian transportation staff and facilities, including land acquisition, design, construction, and proper maintenance.
- In 2005, the region budgeted roughly \$115 million for bicycle and pedestrian projects, or about 3% of transportation capital expenditures
- 6. Integrate bicycling and walking into new development.
- a. Require land developers to finance and construct sidewalks, shared-use paths, and bicycle parking facilities within their developments.
- b. 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.

- 7. 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.
- 8. Improve inter-jurisdictional coordination to identify, construct and preserve multi-jurisdictional routes, and provide connecting links for existing routes to assure the establishment of a continuous bicycle and pedestrian transportation system throughout the Washington metropolitan area.
  - a. 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.
  - b. Identify shared-use path corridors before they are developed, and preserve opportunities for development as shared-use paths.
  - c. 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.

## B. Develop and adhere to consistent bicycle and pedestrian facility design and construction standards in each jurisdiction:

- 1. Develop guidelines and requirements for on-street/off-street facilities.
- 2. 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. Assure that safety is the primary consideration in all design standards.



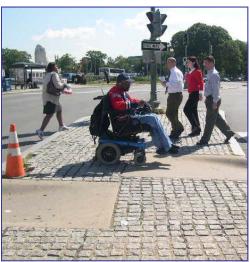
- a. Adopt, as minimum standards for privately and publicly built facilities, the AASHTO Guide for the Development of Bicycle Facilities, AASHTO's A Policy on Geometric Design of Highways and Streets, and the AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities, the ADA Accessibility Guidelines from the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), and the Manual on Uniform Traffic Control Devices from the Federal Highway Administration.
- b. Establish and maintain minimum design and maintenance standards for each type of facility.
- 3. Coordinate planning and construction of routes crossing jurisdictional boundaries
- a. Implement uniform route numbering and/or designation for inter-jurisdictional routes.
- b. Implement a uniform route signage system that will provide easily understood instructions and information.
- 4. Improve Access for the Disabled to Pedestrian Facilities<sup>1</sup>

The Transportation Planning Board's Access for All Advisory Committee has identified the following recommended best practices for improving access for the disabled to pedestrian facilities. More detailed recommendations can be found in the *ADA Accessibility Guidelines* as noted above.

a. 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.

<sup>&</sup>lt;sup>1</sup> "Lessons Learned" fact sheet for Disability Awareness Day. National Capital Region Transportation Planning Board Access for All Committee, October 20, 2004.

- b. The height of wheelchair users should be considered when placing shrubs or other objects where they might block them from the view of motorists.
- c. 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.
- d. The placement of crosswalk buttons must take into consideration the needs of people with disabilities.
- e. Audible pedestrian signals make communities safer for all pedestrians, including seniors and children as well as people with visual impairments.
- f. 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.



Poorly Placed Curb Ramps and Rough Pavement can be Difficult to Navigate in a Wheelchair

## C. Improve bicycle and pedestrian circulation within and between regional activity centers and the urban core.

- 1. Improve sidewalks, bikeways, intersections, signage and links to transit for bicyclists and pedestrians in activity centers
- 2. Improve access to and between regional activity centers.
  - a. Provide access to activity centers from surrounding neighborhoods.



New Bike Racks and Lockers at New York Avenue Metro Station b. Provide facilities to connect nearby activity centers.

# D. Integrate bicycling and walking into the public transportation system.

- 1. Provide safe and convenient access for pedestrians and bicyclists to all Metro and commuter rail stations and parkand-ride lots.
- 2. Improve bicycle parking at Metro and commuter rail stations with well-designed racks, covered racks, and lockers. Replace broken and obsolete bicycle racks with current models.

Investigate the possibility of improving commuter access to bicycle lockers and increasing usage rates by establishing automated, hourly rental service.

3. Improve the convenience of bringing bicycles on the Metrorail. Evaluate the possibility of allowing reverse commuting with bicycles on Metrorail during rush hours.



All 1,450 Washington D.C. region Metrobuses have been equipped with racks to carry up to two bikes per bus

- 4. Provide bicycle racks on all buses.
- 5. Provide for accommodation of bicycles on future rail services in the Washington region.

#### E. Provide adequate bicycle support facilities.

- 1. 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.
- a. Construct bicycle parking facilities in welltraveled and lighted areas. Facilities should be covered and secure.
- b. 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.
- c. Ensure the provision of showers and changing facilities in all new or renovated commercial developments.
- 2. Provide bicycle parking on public property. Jurisdictions should install bicycle parking in public spaces where there is demand, such public libraries, parks, and sidewalks near storefront retail.



The District of Columbia requires Bicycle Parking in any building with Automobile Parking, and Installs Bike Racks on Public Sidewalks on Request

Washington, D.C. Department of Transportation has established the following bicycle parking requirements for property owners:

- Bicycle parking is required for office, retail and service uses that provide car parking
- The required number of bike parking spaces is five percent (5%) of the required number of automobile parking spaces
- Bicycle parking must be convenient, secure, and well-lit
- For older buildings, one percent (1%) of the amount of required parking spaces may be converted to bicycle parking spaces
- DDOT offers free technical advice and racks for existing garages and off-street parking lots

# F. Develop pedestrian and bicycle safety education and enforcement programs in all jurisdictions.

3,425 elementary school students in the District of Columbia, Montgomery, and Prince George's Counties were trained in pedestrian and bicycle safety basics in 2004, under a program funded by the Maryland Office of Highway Safety

1. Promote pedestrian and bicycle safety education programs for children, beginning at the earliest possible age.



- a. Establish pedestrian and bicycle safety programs at the elementary school level, including classroom and on-bicycle instruction.
- b. Develop and distribute pedestrian and bicycle safety information materials designed to teach beginning cyclists and young pedestrians.
- c. Emphasize the use of bicycle helmets as a means of injury reduction, lights after dark, reflectors, and reflective clothing for pedestrians.
- 2. Improve cycling skills and pedestrian safety habits of adults and young adults.
  - a. Produce and distribute information on bicycle usage and safety.
  - b. Emphasize the use of helmets for rider protection, lights after dark, reflectors, and reflective clothing for pedestrians.
- 3. Increase motorist awareness and accommodation of bicyclists and pedestrians, and bicyclist and pedestrian awareness and accommodation of motorists.
  - a. Include bicycle and pedestrian information in automobile drivers' training classes, driver's manuals, and license exams, and through public media.
  - b. Coordinate public media campaigns with law enforcement
- 4. Encourage jurisdictional uniformity of traffic laws relating to bicycling and walking. Encourage conformity with such regulations as the <u>Uniform Vehicle Code</u>.
- 5. Encourage consistent bicycle law enforcement to assure safe bicycling and walking.
  - a. 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 and stop lights.



The regional "Street Smart"
Pedestrian and Bicycle Safety
Campaign urges motorists to
"Stop for Pedestrians", and
pedestrians to "Look Before
You Cross"

- b. 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.
- 6. 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.
- 7. Provide increased law enforcement presence along regional off-road trail networks and encourage interjurisdictional cooperation and coordination to provide for the

safety and security of all pedestrians and bicyclists.



Volunteer Patrols can help with Trail Security

- G. 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.
  - 1. Projects should be easily implemented and supported by the community.
  - 2. Each project should enjoy the full and enthusiastic support of the government agencies responsible for implementation.
  - 3. Extensive publicity and promotion should be provided for each facility or service included in the project.
  - 4. An extensive analysis of the effectiveness of each project should be conducted following the demonstration period.