
Recommendations for a Comprehensive Complete Street Policy



**Baltimore County Pedestrian and Bicycle Advisory Committee
Approved November 13, 2012**

**Adopted by Baltimore County Council Resolution 126-13
December 2, 2013**

COUNTY COUNCIL OF BALTIMORE COUNTY, MARYLAND
Legislative Session 2013, Legislative Day No. 20

Resolution No. 126-13

Councilmembers Quirk, Marks & Oliver

By the County Council, December 2, 2013

A RESOLUTION of the Baltimore County Council adopting the Baltimore County Complete Street Policy.

WHEREAS, the Baltimore County Master Plan 2020 provides a guide for ensuring that the County's urban communities are sustainable communities that are compact, walkable, bikeable, and transit-oriented; and

WHEREAS, the Baltimore County Council adopted the Eastern Baltimore County Pedestrian and Bicycle Access Plan in 2006 (Res. 87-06); and

WHEREAS, the Council adopted the Western Baltimore County Pedestrian and Bicycle Access Plan in 2012 (Res.83-12); and

WHEREAS, these plans provide recommendations for improved pedestrian facilities, on-road bicycle facilities, and shared use paths; and

WHEREAS, in 2011, the Council established the Baltimore County Pedestrian and Bicycle Advisory Committee (Bill 2-11) and charged the Committee with the duty to recommend a complete streets policy that provides guiding principles to be considered in all development and capital projects to ensure that these projects promote walking, bicycling, and transit use in a safe and efficient manner for all users; and

WHEREAS, the Committee submitted its 2012 annual report to the County Executive and County Council which, among other things, recommends the adoption of a Complete Street Policy for Baltimore County; and

WHEREAS, the County Council has reviewed the recommended Complete Street Policy and held a public hearing thereon; now, therefore, be it

RESOLVED by the County Council of Baltimore County, Maryland, that the Baltimore County Complete Street Policy, a copy of which is attached hereto as Exhibit A, be and it is hereby adopted as a guide for the development of all public and private roadways in the County with the objective of creating a safe, multimodal transportation system within healthy, walkable, bikeable, and livable communities.

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Baltimore County Complete Street Design Guidelines for Urban Areas

Introduction

Streets are the most important and used public spaces. Generally, the street configuration determines how accessible a community is for pedestrians and bicyclists as well as motorists. An interconnected street network with small block patterns provides the best access and mobility. Convenient and safe walking and bicycling facilities increase transportation options, and are an important component to creating livable and sustainable communities.

Typical suburban street design standards over the last 50 years have strongly favored automobiles over other forms of transportation, including walking and biking. By reducing road widths for local streets, increasing sidewalk widths, and requiring more inter-connectivity, the system will become safer, more efficient and convenient for the variety of users, as well as provide economic benefits in reduced costs of initial construction and maintenance, including snow removal.



An incomplete street prioritizes the movement of motor vehicles, making access by pedestrians and bicyclists difficult.



A complete street provides equitable facilities for walking, bicycling and transit, in addition to motor vehicles.

The idea of “Complete Streets” is about rebalancing the use streets within communities to serve the needs of all transportation users, including pedestrians, bicyclists, people with disabilities, and transit riders, as well as automobile users and other vehicular traffic.

The concept is simple and consistent—each time a road is built or reconstructed, make it multimodal. But each project should be designed to create road and street environments in ways that are sensitive and appropriate to their context—a complete street serving a low density residential area will look quite different from a complete street in a high density commercial urban area—but either would be efficient and safe for the users, regardless of travel mode, age or ability.

In a Complete Street approach, a spectrum of project needs and objectives are considered such as the land use context, volume of existing and planned motorized and non-motorized traffic, community character, desired motorized vehicular speed, safety, economic development, convenience of access to destinations, and on-street parking. The site and building design of the uses served by the street are also important considerations. The design of sites and buildings that prioritize motor vehicle access over other modes can discourage people from walking and bicycling safely.

I. SITE DESIGN

1. **Design the circulation network to facilitate connections between uses within the project and to the surrounding area by walking and bicycling as well as by driving.**
 - a. Create an inter-connected street system with through intersections placed for convenient access to uses within the project. (See Table on Page D-5 for intersection spacing).
 - b. Provide for at least one street connection to an adjoining property, not including the principal access to the project. Where future development is likely on adjoining properties, provide for future street connections in logical places.
 - c. Use cul-de-sacs only when it is demonstrated that a street connection is not possible due to site conditions such as severe grade transitions or sensitive natural features. If a cul-de-sac must be used, include a landscaped center island.
 - d. Design bicycle access as part of an interconnected system linking residential areas to destinations such as schools, recreation, shopping and employment areas.
2. **Orient the main entrances of buildings to provide direct pedestrian and bicycle access.**
 - a. Place the main entrance to face the street.
 - b. Use the minimum front setback width to provide the shortest distance from the entrance to the street. Avoid placing off-street parking areas between the building and the street. This will facilitate the physical and visual connection of the building to the street, creating a more comfortable, pedestrian-scaled environment.
3. **Provide pedestrian and bicycle facilities separated from the road in situations where they provide more direct, convenient, safer or attractive access.**
 - a. Consider the use of shared use sidepaths for arterials and collector streets in lieu of on-road



An inter-connected street and alley road system diffuses traffic through the neighborhood, and facilitates easy access by walking and bicycling.



Orient the main entrances of buildings to the street, using the shortest front setback allowed.



On busy streets, cyclists may prefer using a sidepath instead of an onroad facility.



Create internal walking and bicycling networks to link uses to each other and provide access to open space areas.



Design exterior stairways to include ramps/ gutters for bicycles where appropriate.



Paved waiting areas with benches provide a more comfortable experience for transit users.

bicycle facilities. Use sidepaths only where there are few interruptions by driveways.

- b. Provide additional sidewalks to connect buildings on the site to each other if more direct access is not provided by the sidewalks adjacent to streets.
- c. Provide walking and bicycling paths to and through open space areas, as appropriate.
- d. If the project includes exterior stairs that bicyclists will use, provide a gutter or ramp to accommodate the movement of bicycles up/down the stairway.

4. Design transit stops for the convenience and comfort of transit users when a transit stop is located (or planned to be located) on a road bordering the project site.

- a. Provide direct pedestrian access from the stop to the main entrance.
- b. For stops serving over 10 potential riders, provide a paved surface with benches, lighting, and trash receptacles with lids if trash removal is available. Alternatively, provide an 8'x15' pre-graded area free of obstructions and with appropriate access rights recorded to accommodate a future MTA bus shelter.
- c. Incorporate bus pull-outs where appropriate into the design.



Narrow streets and on-street parking have a natural traffic calming effect.



Paving materials can be varied to define different uses as well as add visual interest.



Use curb extensions at intersections when roads include on-street parking.

II. ROAD DESIGN

1. Design streets to slow traffic and promote walkability and bikeability.

- a. Following the table at right, use the narrowest road widths in conjunction with traffic management techniques to meet the needs of all users. Particularly for residential streets, most people do expect and accept the need to drive more slowly and carefully.
- b. Incorporate on-street parking into the street design. In residential neighborhoods, on-street parking has a traffic calming effect, and provides a buffer between moving traffic and pedestrians. In commercial areas, on-street parking provides convenient patron access to retail uses.

2. Consider the following design options, as appropriate:

- a. **Type of paving materials for sidewalks:** While concrete is likely to be the most cost effective, the addition of decorative paving such as brick or colored concrete may add extra visual interest in special locations. Decorative paving could also be used as a buffer area between the walk and curb. In a more naturalistic environment, asphalt material may be more appropriate. If soil conditions are suitable, consider using permeable pavement.
- b. **Curb extensions (bulb-outs):** These are used to narrow the paved area of the street, generally at intersections or for mid-block crossings, making it easier for pedestrians to cross the street. Their use is restricted to roads with on-street parking.

Street Design Guide

Street Type	Posted Speed Range (mph)	Volume (ADT)	Appropriate Bike Facility	Sidewalk*	Intersection Spacing (ft.)
Principal arterial	40-50	>18,000	Bike lane, cycle track or sidepath	Both sides of road, separated from curb, 6' wide	660-1,320
Minor arterial	35-45	10,000-25,000	Bike lane or sidepath	Both sides of road, separated from curb, 5' wide	300-1,320
Major collector	30-35	5,000-15,000	Bike lane or sidepath	Both sides of road, separated from curb, 5' wide	300-660
Minor or neighborhood collector	30-35	<6,000	Bike lane or shared bike/parking lane if few parked vehicles	Both sides of road, separated from curb, 5' wide	300-660
Local street, mid to high density	25	<3,000	None needed unless part of a network route	Both sides of road, separated from curb, 5' wide	200-660
Local street, low density	25	<3,000	None needed unless part of a network route	Both sides of road, separated from curb, 5' wide	200-660

*Notes:

- (1) While separation of the sidewalk from the curb is preferable, if the sidewalk is located directly adjacent to the curb, 8' wide is desirable for principal arterials, and 6' wide for all other street types.
- (2) Wider sidewalks may be appropriate in areas of higher pedestrian activities particularly in commercial and mixed use districts.



Use medians to provide pedestrian refuges, making crossing busy roads safer.



Design bioretention facilities as attractive amenities of the pedestrian environment.



Make use of traffic signals and pavement markings to create safe and convenient pedestrian and bicycle road crossings.

- c. **Medians and enhanced pedestrian refuges:** Use these on wide and/or heavily trafficked roads to make them safer and easier for pedestrians to cross. Medians are also useful for traffic calming.
- d. **Bioretention curb extensions, medians and sidewalk planters:** Bioretention includes planting strips taking runoff from the street, without having to construct a curb and gutter system, and providing stormwater infiltration and storage. Their design contribute to the attractiveness of the neighborhood.
- e. **Lighting:** Adequate lighting should be provided for all pedestrian routes along streets, and in locations such as parks, commercial districts, and transit stops, where night-time use occurs. Lighting for sidewalks and shopfronts is most effectively provided by pedestrian-scale streetlights (12 to 16 feet in height) placed inside the curb, spaced about 60 feet apart, on ornamental poles. Such fixtures contribute to positive night-time environments and more successful commercial districts.
- f. **Crosswalks:** Pedestrian crossings may be marked with reflective material or paint, or, in some locations, it may be desirable to use a specialized material or color. New materials are available to stamp and color markings in asphalt, which can be used to create a distinctive, richer visual appearance. Crosswalks should be present on all legs at signalized intersections, unless hazardous conditions make one or two legs unsuitable.
- g. **Pedestrian/bicycle traffic signals and markings:** Enhanced signals, signage, and road markings (e.g., advance stop and yield lines) offer the opportunity to strengthen crosswalk safety. Traffic signal technology is evolving, and national standards have yet to be established. Incorporate the most appropriate traffic signals to be responsive to pedestrian and bicycle demands.
- h. **Traffic Calming:** Design techniques that work to slow down motor vehicles can be used to make the environment safer for walkers and cyclists. Options include creating one way traffic patterns, turn restrictions, narrowing lane widths, traffic circles or roundabouts, speed humps, pedestrian refuge islands, and curb extensions. Ensure that



Incorporate traffic calming devices such as roundabouts as appropriate to reduce motor traffic speeds.



Pedestrian amenities promote walking by making the walking environment more comfortable and attractive.



Locate bicycle parking to be easily accessible, convenient and secure.

the design provides for the movement of cyclists. When introducing traffic calming techniques into an existing neighborhood, residents and stakeholders should be fully engaged in each stage of the design process.

- i. Pedestrian and bicycle street furniture and amenities:** Incorporate street trees, plantings, benches, trash receptacles, and wayfinding signage into improvement projects as appropriate, to support and encourage pedestrian and/or bicycle activity. Street trees provide shade during the summer and have a calming effect on traffic speed, making the overall environment more pleasant. Benches and trash receptacles should be placed strategically as resting, waiting and people-watching areas.

3. Provide bicycle parking facilities.

- a. Provide conveniently located, easily accessible, secure bicycle storage at major commercial, institutional, governmental, multifamily residential and recreational facilities for patrons and employees. Consider the use of custom designed racks to promote the locale or adjoining business.
- b. For short-term parking (less than two hours), provide easy-to-use outside bicycle racks. Locate the parking facility so that it is visible and in close proximity to primary entrances. Embed racks in cement or affix with tamper-proof bolts or screws, and provide lighting for night-time use. Consider use of security cameras and protection from bad weather.
- c. Provide long-term parking (more than two hours) for employees and building tenants. Ideally, long-term parking is indoor, provides high security and offers protection from bad weather. Locate the parking facility in a well-lit, visible area. Provide enough space so that cyclists do not have to detach wheels, panniers and other gear or components; and to allow more parking to be added as more people choose to cycle. Locate for convenience so that bicyclists don't have to take bicycles through heavy doors, on stairs, or in elevators.