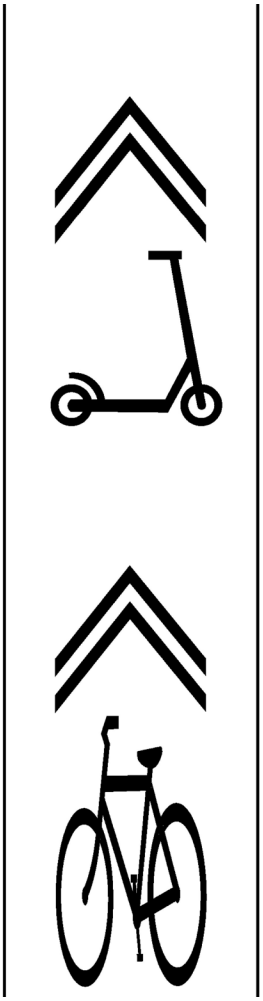
Slow Lanes (Mobility Lanes)

Slow lanes are mixed mobility travel lanes for use by mobility devices traveling between 10 to 15 mph. They are designed to be adaptable and accommodate new modes of micromobility, scooters, and bicycles. Unlike traditional bike lanes, slow lanes also typically include pavement marking stencils for scooters. However, it should be noted that at the time of this writing, the scooter symbol is not provided in the *MUTCD*. Given that the width of these lanes is wide enough to accommodate a vehicle, it may be preferable for slow lanes to be buffered or separated from the roadway. At the time of this Manual publication, Baltimore City has not adopted the use of slow lanes, and micromobility devices are encouraged to use bicycle facilities. See Micromobility for further details.



Slow Lanes are an Emerging Trend in Complete Streets

Advisory Bike Lanes

Advisory bike lanes may be considered on low-volume roadways that are too narrow for standard bike lanes and have traffic volumes between 2,000 ADT and 3,000 ADT with a maximum speed limit of 25 mph. This treatment is currently considered experimental by FHWA and must be approved by Baltimore DOT. If implemented as an experimental treatment, DOT would need to work through MDOT SHA and FHWA to document the reasons for using it over other methods and determine what level of reporting they would need to do after implementation.

Speed Management

Consistent with the City's emphasis on traffic safety, addressing speed management is a fundamental element of Complete Streets. Aligning vehicle speeds with the surrounding land use context, modal priority, and purpose of the street is essential to the success of Complete Streets and safety for the surrounding community.

Excessive vehicular speeds on City streets conflict with safe design and operation of Complete Streets, placing a high severe injury and fatality risk to pedestrians, bicyclists, micromobility users, and transit users. Baltimore City experiences over 30 traffic related fatalities per year, hundreds of serious or incapacitating injuries, and over 5,000 total injuries. Speed management is critical in achieving safe, livable streets.

By Law in the City of Baltimore, the desired speed for a street shall be equal to the target speed and posted speed. The speed limit on a non-highway roadway should not be set according to 85th percentile speeds, but rather it should be set according to the desired speed for that street based on the land use context and modal priority.

Target Speeds by Street Type

Background

Managing vehicular speed on City streets through street design can be accomplished proactively or reactively. Traffic calming treatments are generally applied reactively to a street that has a design speed misaligned with the surrounding environment, street's function, and modal priority. The treatments are deployed to retrofit the street's design to slow vehicles to a desired target speed. Recommended traffic calming treatments/tools are detailed in the Intersections, Crossings, and Mid-block Treatments Section.

Designing to a Target Speed

This Manual's design standards and specifications mandate the alignment of a street's design speed with the desired target speed on all new City transportation projects. Assigning target speeds to Street Types aligns design and target speeds to fit the surrounding community.

The following table identifies target speeds by Street Type that reflect land use context and street functionality. The table also includes subcategories of modal priority per Street Type in order to optimize the balance of safety and mobility. When selecting a target speed for each Street Type, the default target speed should be used on all streets within the pedestrian network. However, the default target speed can be modified depending on the modal priority, as indicated in the table below.

Generally speaking, streets serving residential communities, activity centers, and priority safety/overlay areas such as school zones, possess lower target speeds. Streets connecting communities with less on-street multimodal activity possess higher target speeds. When multiple modal priorities exist on a corridor, the speed that accommodates the most vulnerable of modal priorities should be selected (i.e., bicycle first, transit second, and motor vehicles third). Some streets do not serve pedestrians or cyclists, therefore the target speed can be increased on those streets as indicated in the table.

The target speeds shown below should be incorporated into:

- Street design specifications/geometric decisions
- Speed limit signage
- Traffic calming device spacing (see speed hump spacing table)
- Traffic control device operation
- In a coordinated signal network, the progression speed shall be the target speed or lower based on engineering judgment

Table 10. Target Speeds by Street Type

	Target Design Speed (MPH)
Downtown Commercial	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Transit Priority Network	25
On Truck Route	25
Downtown Mixed-use	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Bicycle Network (Traditional Bike Lanes)	20
On Transit Priority Network	25
On Truck Route	25
Urban Village Main	
Base Target Speed. However, if:	20
On Bicycle Network (Separated/Buffered Bike Lanes)	20
On Bicycle Network (Traditional Bike Lanes)	20
On Transit Priority Network	20
Urban Village Neighborhood	
Base Target Speed. However, if:	20
On Bicycle Network (Separated/Buffered Bike Lanes)	20
On Bicycle Network (Traditional Bike Lanes)	15

	Target Design Speed (MPH)
Urban Village Shared Street	
Base Target Speed	15
Urban Center Connector	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Transit Priority Network	25
On Truck Route	25
Off of Pedestrian Network	35
Neighborhood Corridor	
Base Target Speed. However, if:	20
On Bicycle Network (Separated/Buffered Bike Lanes)	20
On Bicycle Network (Traditional Bike Lanes)	15
On Transit Priority Network	20
On Single Lane Streets	15
Industrial Access	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Bicycle Network (Traditional Bike Lanes)	20
On Transit Priority Network	25
Off of Pedestrian Network	35
Parkway	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Transit Priority Network	25
On Truck Route	25
Off of Pedestrian Network	35

	Target Design Speed (MPH)
Boulevard	
Base Target Speed. However, if:	25
On Bicycle Network (Separated/Buffered Bike Lanes)	25
On Bicycle Network (Traditional Bike Lanes)	20
On Transit Priority Network	25
On Truck Route	25
Special Overlay Zones / Transition Areas	
School Zones	15-20
Community Centers / Farmers Markets / Senior Centers	20
Transit Mobility Hubs	25
College Campuses	25
Transition Areas Entering Residential Neighborhoods, Urban Villages, and Downtown	25

An Approach to Managing Vehicular Speeds

The approach below should be followed to manage vehicular speeds on City streets. This approach is most applicable to streets that have not been redesigned to this Manual's new specifications and thus possess design and operational characteristics inconsistent with the community context and modal priority. Overlay zones and transition areas are priority locations for this analysis.

1. **Understand the Community and Purpose of the Street**

   Identify the Street Type that reflects land use context and function of the street. Understand the modal priority and other factors that influence the need for speed management. Examples include:

a. School zones (and time of day arrival/departure)
b. Community centers, playgrounds, and other activity centers
c. Level of pedestrian activity
d. Major transit hubs/stations
e. Transit priority street
f. Bicycle and micromobility priority street

2. **Identify the Target Speeds Associated with the Street Type and Design the Street to Meet the Target Speed**

   Use design elements to manage vehicular speed, applying some or all of the following treatments/ roadway characteristics:

   a. Lane widths/roadway geometry
   b. Signal timing
   c. Speed limit signage
   d. Intersection toolbox treatments
   e. Corner design
   f. Traffic calming measures
   g. Landscaping
   h. Curbspace management

3. **Take a Comprehensive Approach to Implementing and Monitoring City Streets**

   Successfully controlling speeds on Baltimore's streets requires coordination between traffic engineers, planners, community outreach specialists, and the Police as outlined below:

   a. **Evaluate**: Create/maintain a data-driven process to track and compare posted speed limits verses prevailing speeds (85th percentile), and identify high-risk locations on City streets. Assess information by time of day and day of the week. Once established, track the comparison as a performance measure in the Complete Streets Annual Report.
   b. **Engage**: Listen to community members to understand the community perspective and driver behavior.
   c. **Educate**: Partner with the community to increase awareness and support. With communication specialists and the Police, launch education campaigns to emphasize the risks of speeding and the associated penalties.
   d. **Engineer**: Modify the street design and operation using countermeasures listed in Intersection and Street Crossing Control and FHWA's *Speed Management Toolkit*.
   e. **Enforce**: After educating the public, enforce speed limits. Assess the evaluation to understand the speeding challenges such as location, time of day, and street design shortcomings. Focus enforcement based on this evaluation to optimize police resources.
   f. **Equitable**: Be equitable in the allocation of enforcement and engineering resources.

While education and enforcement are components of an implementation process, engineering should be the primary focus for speed management, as real physical changes are the most proven methods of slowing vehicle speeds and increasing safety. Achieving significant speed reduction through education can be extremely difficult, and consistent enforcement is resource intensive.

Speed Management Resources

Institute of Transportation Engineers Speed Management for Safety Resource Hub: https://www.ite.org/technical-resources/topics/speed-management-for-safety/

Federal Highway Administration: https://safety.fhwa.dot.gov/speedmgt/

National Association of City Transportation Officials Speed Management Design Guidance: https://nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards/speed-management/#design