



Separated Bicycle Lane



DESCRIPTION

- A separated bicycle lane, also known as a cycle track or protected bicycle lane, provides both horizontal and vertical separation between bicyclists and adjacent vehicles.
- Separated bicycle lanes run along the curb or shoulder and may be one- or two-way.
- Horizontal separation may be provided by striping or different paving materials. Vertical separation may be provided by flex posts, a parking lane, a median, a landscaped buffer, or by raising the lane to an intermediate or sidewalk level.
- At intersections or driveways, motorists should yield to people biking through before turning with caution.
- At transit stops, bicyclists should yield to people getting on or off transit vehicles and wait for the lane to clear before proceeding.

CONTEXT

- A separated bicycle lane is often installed on streets with high-stress features such as multiple lanes, high traffic volumes and speeds, and high demand for parking.
- A separated bicycle lane is particularly appropriate on streets with existing high bicycle volumes or on streets whose features prevent people from biking comfortably even with a traditional or buffered bike lane.

BENEFITS

- ✓ **Improved safety**
- ✓ **Improved comfort**
- ✓ **Traffic compliance**
- ✓ **Increased efficiency**
- ✓ **Safer speeds**



Mosby Street, Richmond, VA

POLICY AND DESIGN GUIDANCE

- Wider bicycle lanes provide higher levels of capacity and comfort and they facilitate safer passing and side-by-side riding without needing to leave the bicycle lane. Separated bicycle lanes, in particular, require sufficient shy distance between bicyclists and vertical separation.
- If one-way, separated bicycle lanes are typically positioned on the right side of the street. However, on one-way streets or in two-way applications, the lane may be positioned differently.
- A solid double white line is often used to demarcate the lane. If wide enough, the buffer should include interior diagonal cross hatching or chevron markings. In some cases, the buffer area may use different paving materials, such as bricks or textured materials.
- The type of vertical separation may be based on the presence of on-street parking, lane widths, cost, aesthetics, emergency vehicle access, and maintenance.
- Bicycle lane pavement markings should be periodically stenciled in the bicycle lane, especially following intersections.
- Separated bicycle lanes typically cost \$215,000-\$760,000 per mile depending on the separation used.

For more information on **Separated Bicycle Lanes** and other bicycle and pedestrian treatments, visit virginiadot.org/programs/bikeped/bicycle_and_pedestrian_treatments.asp



RESOURCES

Legal definitions and regulations:

[Code of Virginia](#)

Treatment applications and general design guidance:

[NACTO](#)

[AASHTO](#)

[FHWA](#)

Geometric design guidance for Virginia:

[VDOT Road Design Manual](#)

Pavement markings, placement, and spacing:

[MUTCD](#)

[VDOT 2016 Road and Bridge Standards](#)

[Virginia Supplement to the MUTCD](#)

Rural applications:

[Small Town and Rural Design Guide](#)

Guidelines are provided for informational purposes only. For detailed design guidance, please refer directly to design manuals and standards.