



# CLIMBING BICYCLE LANES


Climbing bicycle lanes are a bicycle lane provided on only the uphill side of a street. Bicyclists traveling uphill typically travel at much slower speeds while bicyclists traveling downhill may approach the speed of vehicles and can therefore share the lane.

## USE

- Climbing bicycle lanes are only used on streets with steep or sustained grades on which there is insufficient space for bicycle lanes on both sides of the street or where traffic volumes are too high to install advisory bicycle lanes.
- Climbing bicycle lanes are appropriate on most street types; however, they are generally more appropriate on streets with moderate traffic volumes (3,000 to 8,000 ADT) and posted speeds of 25 mph or less.

## DESIGN

- Climbing bicycle lanes should be used in the uphill direction on roadways with steep grades to provide a dedicated space for bicyclists.
- Shared lane markings (sharrows) and/or “Bikes May Use Full Lane” signage are installed in the downhill direction.
- Climbing bicycle lanes have the same minimum width (five feet) and design as standard bicycle lanes. Extra width is recommended to accommodate the side-to-side movement of people on bicycles as they pedal up steep hills.

 Bicycle facilities may offer an opportunity for porous concrete or asphalt treatments.

## SPECIAL CONSIDERATIONS

- If on-street parking is provided in the downhill direction, it is particularly important to ensure that bicyclists are directed to ride in a location outside of the door zone.
- Additional signage may be required to advise motorists to expect bicyclists in both directions. Downhill lanes may need signage stating that bicyclists may use the full lane.

## OPERATIONS AND MAINTENANCE

- Bicycle facilities should be kept free of debris, which has a tendency to collect at the edge of the lanes, representing a hazard to bicyclists.
- If trenching is done in the bicycle lane, repair the entire width of the bicycle lane and install pavement markings so there is not an uneven surface as this can be particularly dangerous for bicyclists.
- Avoid locating manholes in bicycle lanes. Ensure any utility or vault covers are flush with the road surface and properly set and maintained.
- Bicycle lanes and associated signs and symbols are additional markings that will require maintenance and replacement.
- If colored pavement is used, routine maintenance plans should be in place to keep the pavement markings clear.
- Bicycle facilities may require additional enforcement to ensure they remain free of parked and stopped vehicles, delivery trucks and other obstacles.
- Recess marking to minimize maintenance requirements and maintain reflectivity.

## REFERENCES

- NACTO: Urban Bikeway Design Guide, Second Edition, 2014
  - <http://nacto.org/publication/urban-bikeway-design-guide/bike-lanes/conventional-bike-lanes/>
- AASHTO: Guide for the Development of Bicycle Facilities, 2012
  - Section 4.5: Paved Shoulders
  - Section 4.6: Bicycle Lanes
  - Section 4.7: Bicycle Lane Markings and Signs
  - Section 4.8: Bicycle Lanes at Intersections
  - Section 4.9: Retrofitting Bicycle Facilities on Existing Streets and Highways
- ITE Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, 2010
  - Chapter 9. Traveled Way Design Guidelines: Bicycle Lanes
  - <http://library.ite.org/pub/e1cff43c-2354-d714-51d9-d82b39d4dbad>
  - Part 9 Traffic Control for Bicycle Facilities [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mmutcdpart9\\_2011.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdpart9_2011.pdf)