

# Paved Shoulders

## Description:

- The shoulder is the edge or border of a roadway that is contiguous with, and on the same level as, the regularly traveled lanes.
- The width of a shoulder bikeway and separation from the travel lane depend primarily on roadway motor vehicle speed and traffic volume.

## Advantages:

- Accommodations on roadways with higher speeds or traffic volumes as well as benefit motorists.
- Extend the service life of the road by reducing edge deterioration, and provide space for temporary storage of disabled vehicles.



## Disadvantages:

- Some shoulders are too narrow to safely ride in and invite dangerously close passing at high rates of speed from motorists.
- Typical vehicle speeds of motorists is greater in rural areas compared to urban and residential areas

## Typical Application:

- Paved shoulders are most often used on rural roadways.

## Design Guidelines

- The appropriate width of the shoulder is determined by design speed, ADT, bicyclist needs, and other factors.
- The appropriate shoulder width ranges from 4 feet to 10 feet.

# Cycle Tracks

## Description:

- A cycle track is an exclusive bike facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane.
- Cycle tracks all share common elements—they provide space that is intended to be exclusively or primarily used for bicycles, and are separated from motor vehicle travel lanes, parking lanes, and sidewalks.
- Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level.

## Advantages:

- Dedicates and protects space for bicyclists in order to improve perceived comfort and safety.



## Typical Application:

- Streets on which bike lanes would cause many bicyclists to feel stress because of factors such as multiple lanes, high traffic volumes, high speed traffic, high demand for double parking, and high parking turnover.

## Design Guidelines:

- The minimum desired width for a cycle track should be 5 feet.
- The desirable two-way cycle track width is 12 feet. Minimum width in constrained locations is 8 feet.
- Three feet is the desired width for a parking buffer to allow for passenger loading and to prevent door collisions.

# Buffered Bike Lane

## Description:

- Buffered Bike Lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

## Advantages:

- Provides greater shy distance between motor vehicles and bicyclists.
- Encourages bicycling by contributing to the perception of safety among users of the bicycle network.

## Disadvantages:

- Additional space requirements
- Added maintenance required for the buffer striping



## Typical Application:

- On streets with high travel speeds, high travel volumes, and/or high amounts of truck traffic.
- On streets with extra lanes or extra lane width.

## Design Guidelines:

- Bicycle lane width will be a minimum of 5 feet.
- Bicycle lane word and/or symbol and arrow markings shall be used to define the bike lane and designate that portion of the street for preferential use by bicyclists.
- Buffers should be at least 18 inches wide because it is impractical to mark a zone narrower than that.

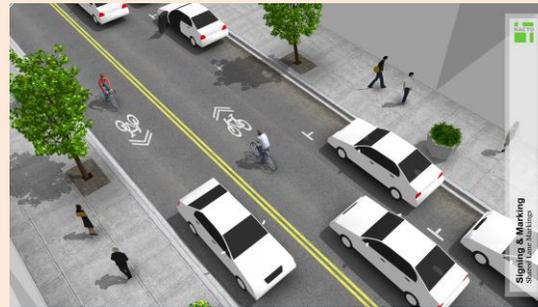
# Shared Roadway

## Description:

- Shared roadways, or “sharrows”, are a shared lane environment for bicycles and automobiles.
- Sharrows increase the visibility of the roadway as a valid place for bicycle traffic and guide proper roadway positioning of bicyclists on streets where a separated facility is desired but not feasible.

## Advantages:

- Helps bicyclists position themselves in lanes too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane.
- Encourages safe passing by motorists.



## Disadvantages:

- Less desirable than a separated bicycle facility.
- With higher speeds and traffic volumes, shared lanes become less attractive to basic bicyclists.

## Typical Application:

- Streets with moderate motor vehicle traffic volumes, but where bike lanes are precluded by constrained right-of-way.
- Short gaps between bike lanes.

## Design Guidelines:

- Preferred width for a shared-use pathway is a 16 feet bike lane, centered in the right of way, with pedestrian paths on each side
- Travel lanes are typically 12 feet wide, or less.

# Shared-Use Path

## Description:

- Shared-use paths are a valuable element of bicycle networks and serve both a transportation and recreation function, providing route continuity for commuting and recreation trips, access to destinations not otherwise available to bicyclists on the street and road system, and access between buildings and other discontinuities in the street network.

## Advantages:

- Serve as an important transportation function by providing a through-route for bicycle commuters where existing street and road configurations make longer distance difficult.



## Disadvantages:

- Paths are seldom, if ever, used only by bicycles.

## Typical Application:

- Shared-use paths are a necessary extension of the roadway system to accommodate bicycle transportation, supplementing the network of on-road bicycle facilities.
- Portions of a shared-use path may be within the road right-of-way but physically separated from the roadway by a barrier or landscaping.

## Design Guidelines:

- The standard pavement width for shared-use paths is 10 feet, but each proposed facility must be evaluated in detail.

# Conventional Bike Lanes

## Description:

- Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage.
- Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane.

## Advantages:

- Increases bicyclist comfort and confidence on busy streets.
- Creates separation between bicyclists and automobiles.

## Disadvantages:

- Space requirements can preclude other possible uses like parking or excess travel lane.



## Typical Application:

- Bike lanes are most helpful on streets with  $\geq 3,000$  motor vehicle average daily traffic.
- Bike lanes are most helpful on streets with a posted speed  $\geq 25$  mph.

## Design Guidelines:

- The desirable bike lane width adjacent to a curb face is 6 feet.
- When placed adjacent to a parking lane, the desirable reach from the curb face to the edge of the bike lane (including the parking lane, bike lane, and optional buffer between them) is 14.5 feet; the absolute minimum reach is 12 feet.