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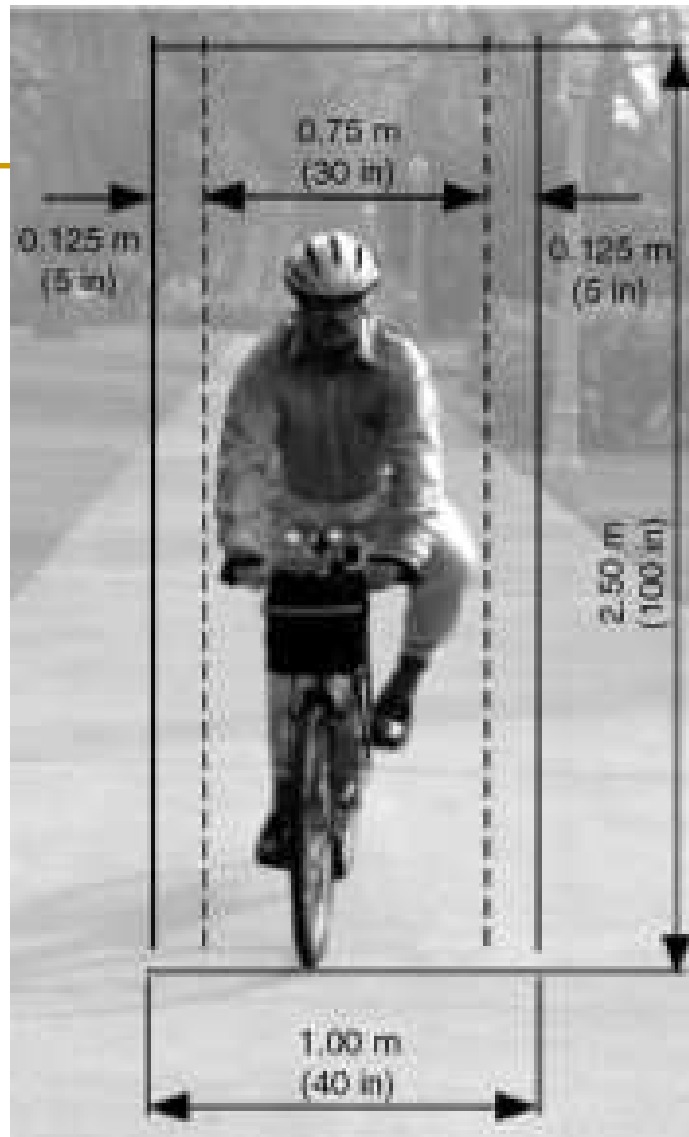
# Bicycle and Pedestrian Paths

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As taken from:  
Guide for the Development of Bicycle Facilities  
1999 AASHTO



## Bicycle Operating Space



As this figure shows, bicyclists require at least 40 inches of essential operating space based solely on their profile. An operating space of 4 feet is assumed as the minimum width for any facility designed for exclusive or preferential use by bicyclists. Where motor vehicle traffic volumes, motor vehicle or bicyclist speed, and the mix of truck and bus traffic increase, a more comfortable operating space of 5 feet or more is desirable.

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## Shared Use Roadways

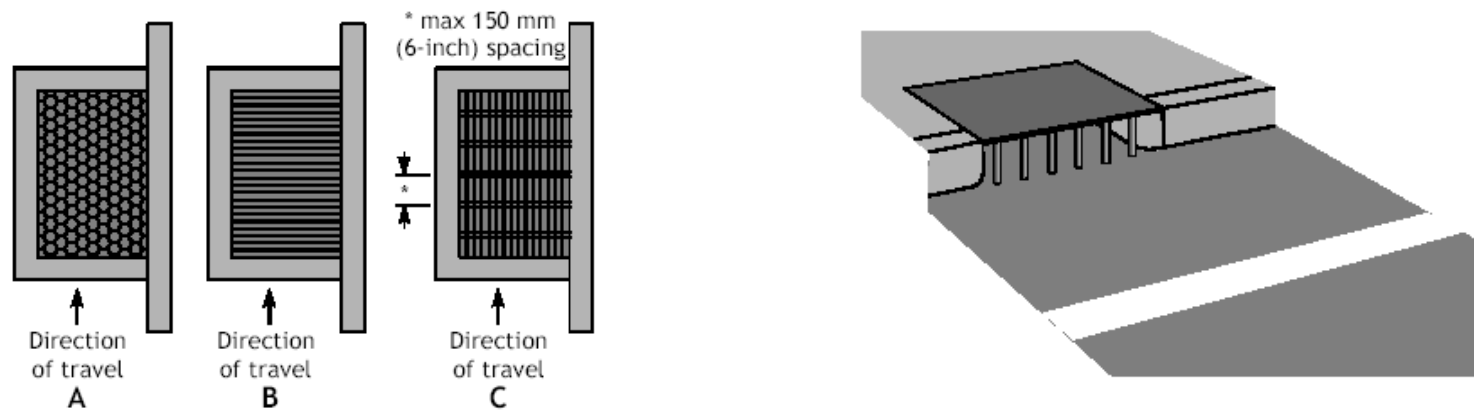


To varying extent, bicycles will be used on all highways where they are permitted. Bicycle-safe design practices should be followed during initial roadway design to avoid costly subsequent improvements. Because most existing highways have not been designed with bicycle travel in mind, roadways can often be improved to more safely accommodate bicycle traffic.

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## Ways to Improve Roadways for Shared use with Bicycles:

- Paved Shoulders - at least 4' wide
- Increased Lane Width - 14' minimum, 15' ideal
- On Street Parking - 12' minimum for parking and bicycling
- Pavement Surface Quality - Smooth, consistent
- Drainage Grates – Use bicycle-safe drains





## Signed Shared Roadways

Signed shared roadways are those that have been identified by signing as preferred bike routes. There are several reasons for designating signed bike routes:

- a. The route provides continuity to other bicycle facilities such as bike lanes and shared use paths.
- b. The road is a common route for bicyclists through a high demand corridor.
- c. In rural areas, the route is preferred for bicycling due to low motor vehicle traffic volume or paved shoulder availability.
- d. The route extends along local neighborhood streets and collectors that lead to an internal neighborhood destination such as a park, school or commercial district.

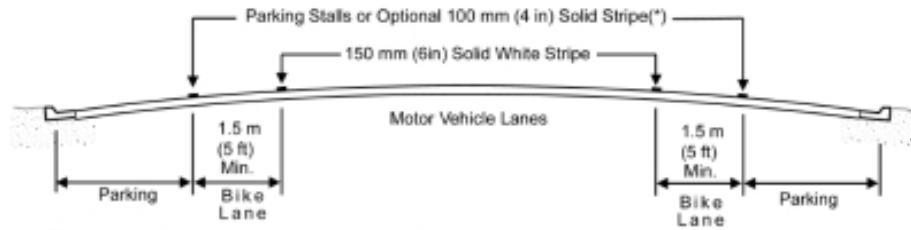






## Bike Lanes

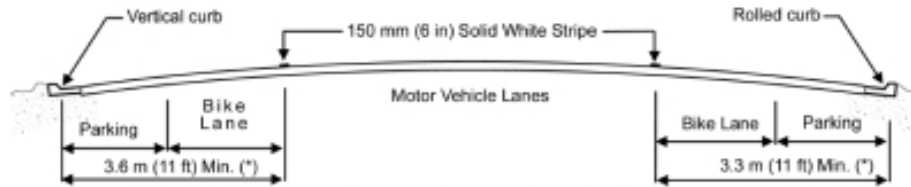
Bike lanes can be incorporated into a roadway when it is desirable to delineate available road space for preferential use by bicyclists and motorists, and to provide for more predictable movements by each. Bike lane markings, as exemplified in the picture, can increase a bicyclist's confidence in motorists not straying into their path of travel. Likewise, passing motorists are less likely to swerve to the left out of their lane to avoid bicyclists on their right.



With Parallel Parking

\* The optional solid white stripe may be advisable where stalls are unnecessary (because parking is tight) but there is concern that motorists may misconstrue the bike lane to be a traffic lane.

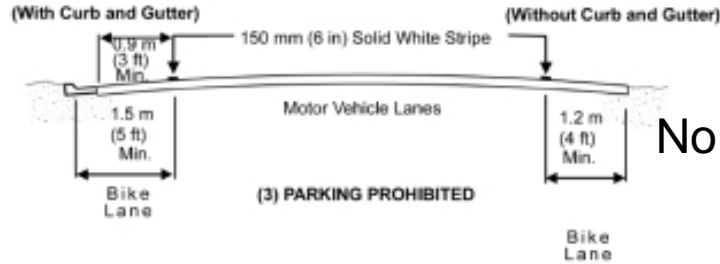
(1) ON-STREET PARKING



Parallel Parking without Stalls

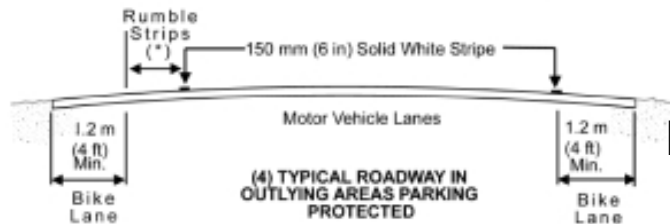
\*3.9 m (13 ft) is recommended where there is substantial parking or turnover of parked cars is high (e.g. commercial areas).

(2) PARKING PERMITTED WITHOUT PARKING STRIPE OR STALL



No On-street Parking

(3) PARKING PROHIBITED



Rural Area Bike Lanes

(4) TYPICAL ROADWAY IN OUTLYING AREAS PARKING PROTECTED

\*If rumble strips exist there should be 1.2 m (4ft) minimum from the rumble strips to the outside edge of the shoulder.







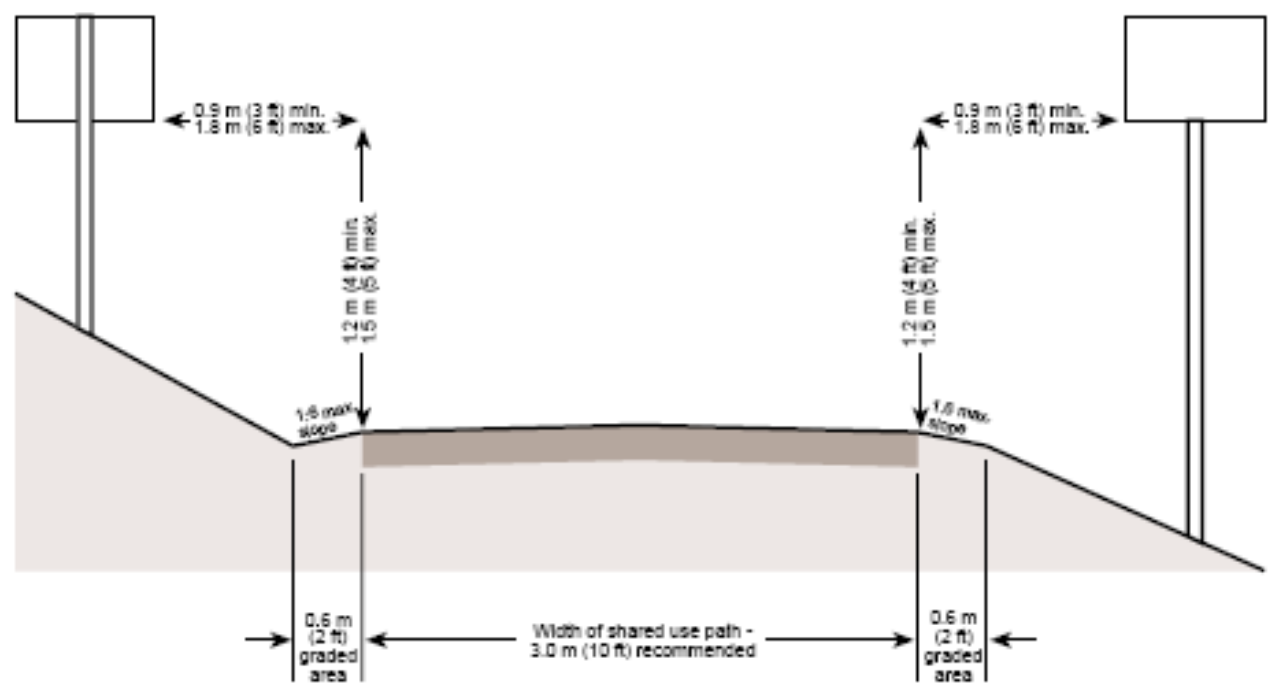
## Shared Use Paths

(such as the Chief Ladiga Trail)



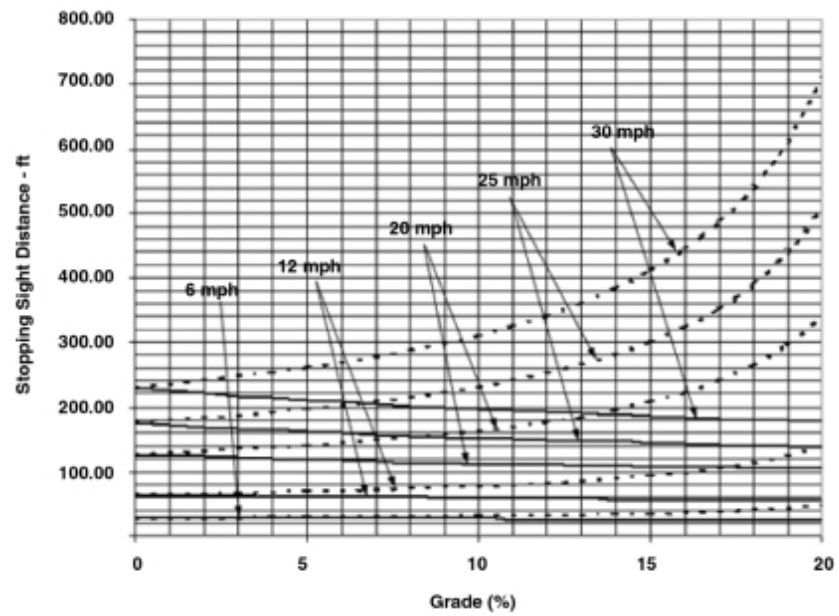
“Shared use paths should be thought of as a complementary system of off-road transportation routes for bicyclists and others that serves as a necessary extension to the roadway network. Shared use paths should not be used to preclude on-road bicycle facilities, but rather to supplement a system of on-road bike lanes, wide outside lanes, paved shoulders and bike routes.”

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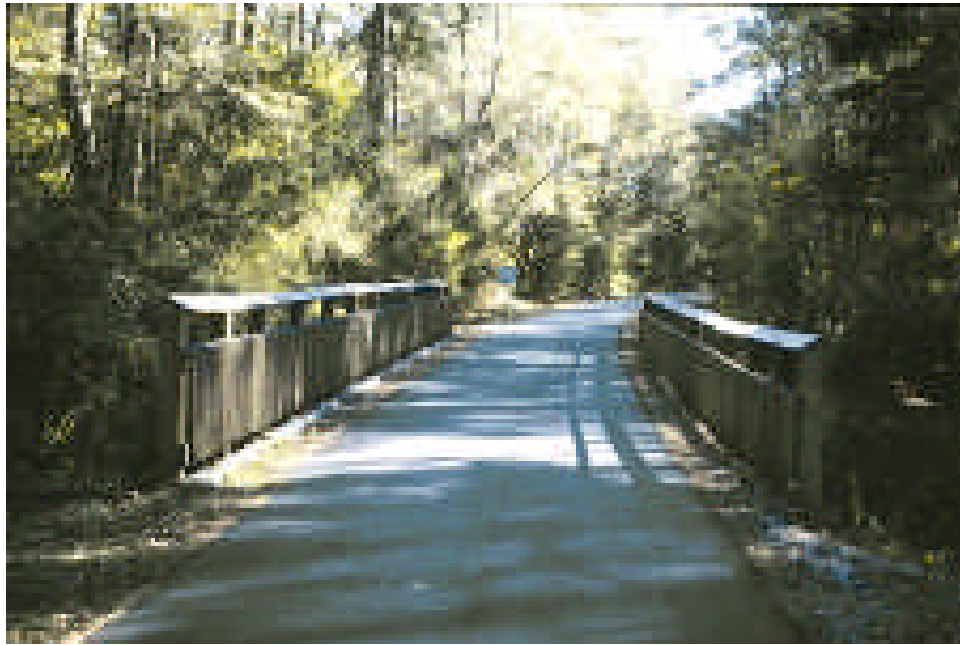






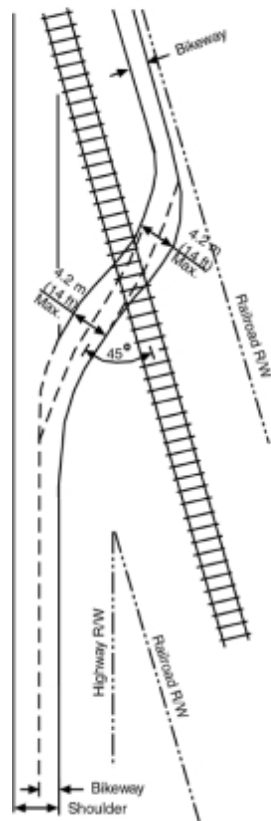




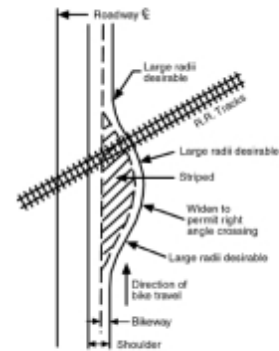




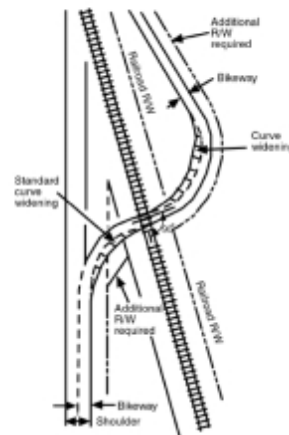
45° Crossing  
(acceptable)



Widened Shoulder



90° Crossing  
(most desirable)



**NOTE:**  
Additional width to 4.2 m (14 ft) to be provided at railroad crossing to allow cyclists to choose their own crossing routes.

