



7.0

BICYCLE FACILITIES

INTENT

This Master Plan recommends a connected framework of clearly delineated bicycle facilities. Key considerations in the development of the plan included connecting Bradley University, The Medical Center and the historic neighborhoods to the Central Business District, Warehouse District and the Riverfront. This Core-to-Shore connection contributes to the renewed sense of community and human scale of Peoria.

The bike facilities of the plan include dedicated bike lanes clearly delineated with roadway markings and signage and a color change to create a bike box at intersections that clarify vehicular bicycle circulation. Sharrow lanes have been included in the plan to allow connectivity along corridors and travel routes. A cycle track has been shown as an option for the Core-to-Shore routes along Hamilton Avenue and Main Street.

The design team interviewed City Planning and Bicycle Planning Teams from around the country to ensure that best practices and lessons learned could be considered in the layout and development of the plans and diagrams.

7.1

PROPOSED BICYCLE LANE

GENERAL RECOMMENDATION

“The way to get more people riding is to make them feel safe. The way you make them feel safe is to build better facilities that separate bicycles from automobile traffic.”

Kyle Wagenshultz, Memphis Bicycle-Pedestrian Coordinator

“Cycling studies have shown that adding bike lanes motivates more people to get out and bike. New Orleans saw a 57% increase just six months after bike lanes were marked. Los Angeles also saw a 52% jump in cyclists on their new lanes.”

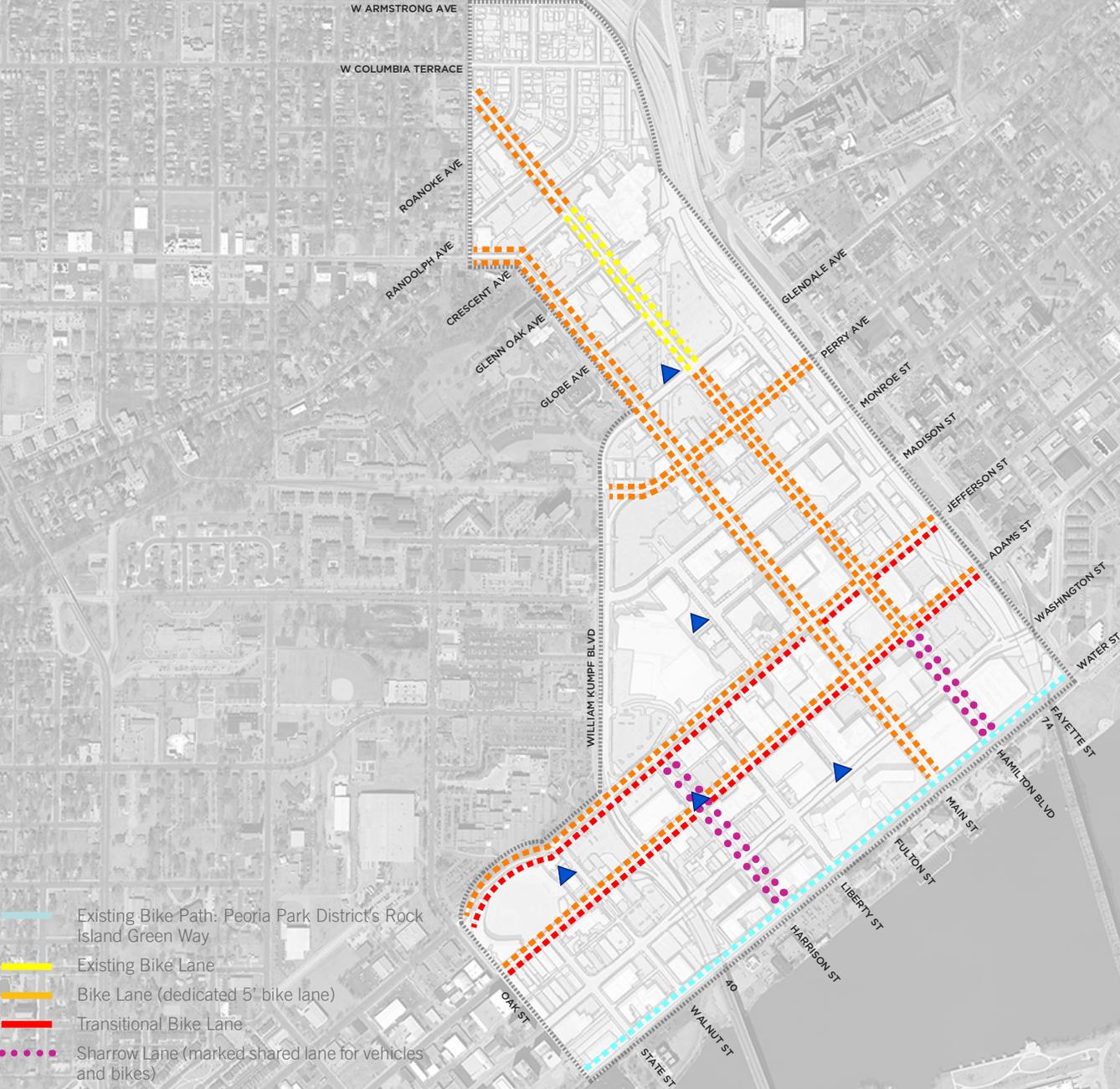
5 Reasons We Need to Add More Bike Lanes, Kevin Mathews

“Safe convenient and well designed bicycle facilities are essential to encourage bicycle use. “

Guide for the Development of Bicycle Facilities

BIKE LANE CONSIDERATIONS

- 1** Reference the “Guide for the Development of Bicycle Facilities” American Association of State Highway and Transportation Officials (AASHTO.)
- 2** Site lines, bike lane widths, intersection design, bike route demarcation.
- 3** Bike lane width to be between 4'-0” and 6'-0” with 6'-8” pavement strip on each side of the lane.
- 4** Signed Shared Roadway or Sharrow lane should be delineated on 11'0” lanes. Sharrow lanes provide continuity of bike facilities and connect key routes and destinations.
- 5** Bike facilities should be free from obstructions, grates, or drains. Surfaces should be well marked and delineated and of smooth continuous finishes.
- 6** Introduce Bike Share program for short distance trips in downtown providing users the ability to pick up a bicycle at any self-serve bike station and return it to any other bike station located within the system’s service area.

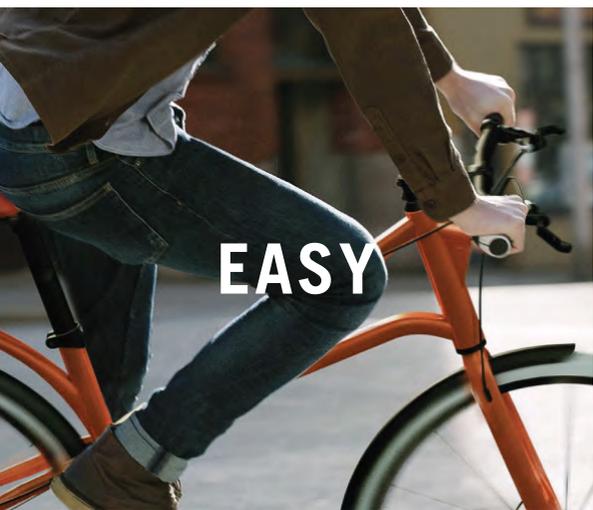


- Existing Bike Path: Peoria Park District's Rock Island Green Way
- Existing Bike Lane
- Bike Lane (dedicated 5' bike lane)
- Transitional Bike Lane
- Sharrow Lane (marked shared lane for vehicles and bikes)
- Bike Share (rental location)





DEFINED



EASY



CONVENIENT



ACCESSIBLE



SAFE

BIKE PEORIA

TRAVEL TIMES

from
**BRADLEY
UNIVERSITY**

to Riverfront Museum

13 MIN
(2.1 miles)

to Dozer Park

9 MIN
(1.6 miles)

to Methodist Medical Center

9 MIN
(1.8 miles)

from
**RANDOLPH-
ROANOKE
DISTRICT**

to Riverfront Museum

5 MIN
(1.5 miles)

to Dozer Park

3 MIN
(1.2 miles)

to Methodist Medical Center

2 MIN
(0.4 miles)

from
**WAREHOUSE
DISTRICT**

to Riverfront Museum

4 MIN
(0.4 miles)

to Dozer Park

4 MIN
(0.3 miles)

to Methodist Medical Center

10 MIN
(1.84 miles)

from
**PEORIA
HEIGHTS**

to Riverfront Museum

17 MIN
(3.6 miles)

to Dozer Park

18 MIN
(3.8 miles)

to Methodist Medical Center

15 MIN
(3.0 miles)

from
**EAST
PEORIA**

to Riverfront Museum

14 MIN
(2.2 miles)

to Dozer Park

14 MIN
(2.1 miles)

to Methodist Medical Center

20 MIN
(2.9 miles)

7.2

RECOMMENDED BICYCLE FACILITY TYPES

RECOMMENDED BICYCLE FACILITY TYPES

The plan recommends a network of different types of “bikeways,” a term that refers to on-road or off-road facilities designed and designated for travel by bicycle. Bikeway design may include pavement markings, signage, signals and geometric features.

Additional resources in the community include the CityLink (ridecitylink.org) resources provided by the Greater Peoria Mass Transit District and Bike Peoria a community resource promoting active safe biking advocacy.

BIKE LANE

A bike lane is established by marking a portion of a roadway for the preferential or exclusive use of bicycles. Bike lanes are recommended on two-way arterial, collector, and local streets where there is enough width to accommodate a bike lane in both directions, and on one-way streets, where there is enough width for a single bike lane. Implementation considerations include the following:

- Bike lanes should be a minimum of 5’ wide when next to on-street parking, or when prevailing operating speeds are 30 mph or higher.
- Additional bike lane width increases separation from parked and moving vehicles, improves user comfort, and allows for bicycles to pass without leaving the bike lane.
- A striped hatched area may be provided between the bike lane and the travel lane to provide additional separation and buffering between bicyclists and motorists.

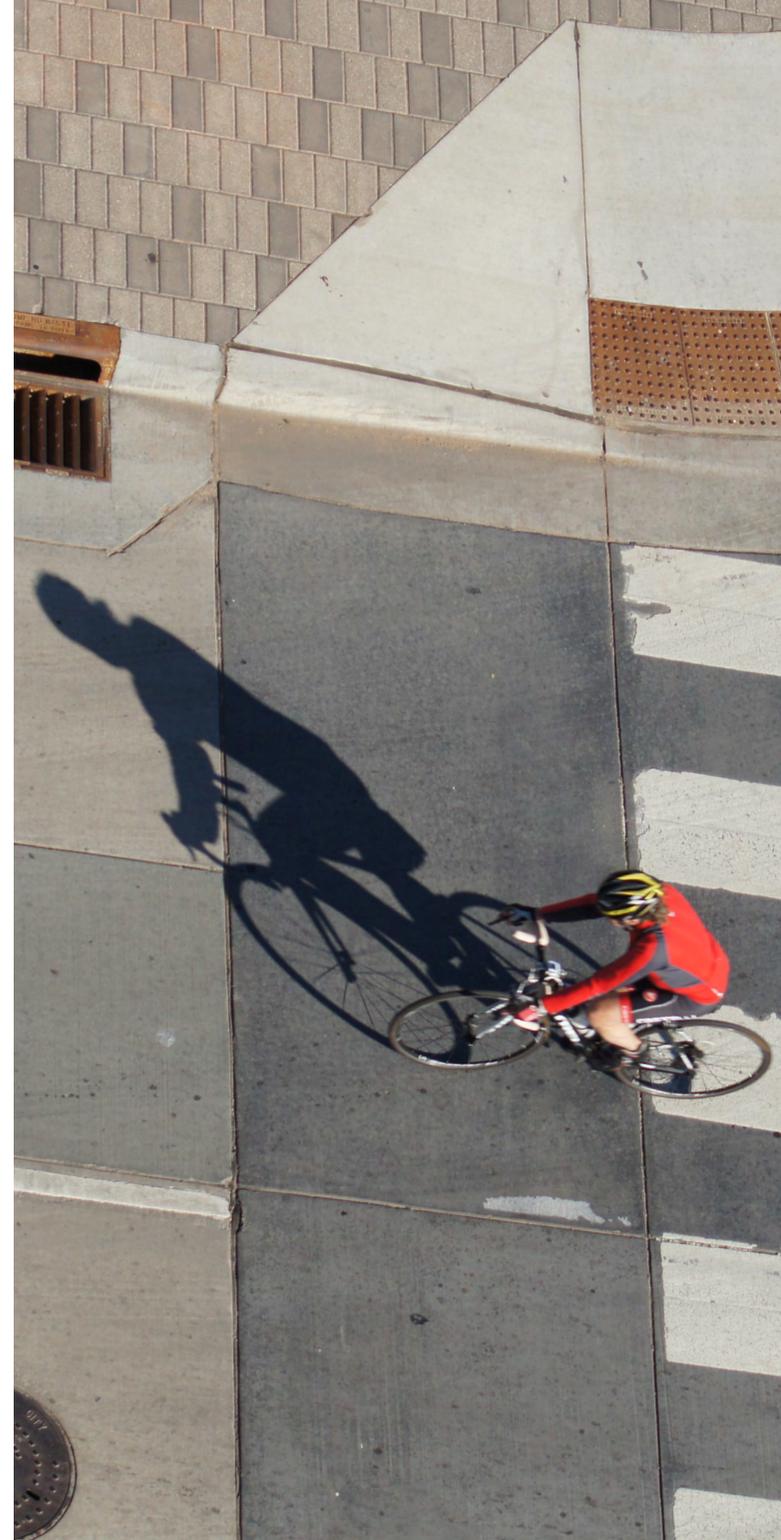
SHARROW LANE

The pavement marking is used to designate a bicycle facility on a street without sufficient width for bike lanes. A marked shared lane (sharrow) is a pavement marking symbol that is used to indicate the most appropriate position for a bicyclist to ride. Marked shared lanes direct bicyclists away from the door zone of parking cars and alert motorists of appropriate bicyclist positioning. The markings also provide a way-finding benefit to bicyclists on routes that have numerous turns or changes in direction. Marked shared lanes are not appropriate on street with speed limits greater than 35 mph.

CYCLE TRACK

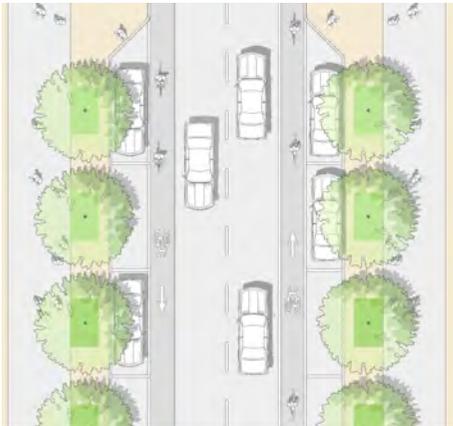
A cycle track is a bicycle facility that is physically separated from both the roadway and the sidewalk. A cycle track may be constructed at the same grade as the street by using a combination of physical barriers such as on-street parking and/or flex posts to define the bicycle space, or it may be constructed at the elevation of the sidewalk typically adjacent to the curb. Cycle tracks can provide users with a higher level of comfort and may be appropriate on wider streets where double parking and/or higher vehicle speeds are a concern. On two-way streets, cycle tracks should generally be designed for one-way operation in the same direction as adjacent traffic. On one-way streets, a cycle track on the left side of the street can allow for two-way bicycle operation, and the reverse allows for two-way bicycle operation, with the direction operating as a contra-flow lane. Implementation considerations include the following:

- Successful use of this design typically requires removal of parking spaces near intersections to provide adequate sight distance and, depending on operations, may require separate bicycle signals.
- Cycle tracks are most successful on wide, busy streets with high traffic speeds, as the parking stalls and curb/tree boundary act as safety barriers for the biker.



BICYCLE FACILITY TYPES

BICYCLE LANES



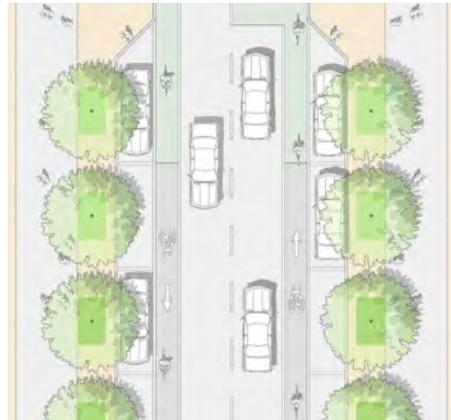
Description

Experimental striped or colored treatment to deter parking where parking/stopping in bike lane may be an issue.

Use

Typically installed by reallocating existing street space (i.e. narrowing other travel lanes, removing travel lanes, and/or reconfiguring parking lanes).

BIKE BOX



Description

Used at Intersections to give bikers the right of way. This also allows for drivers to be more aware of bikers when stopped at an intersection. This also gives bikers more of an opportunity to make a safe turn.

Use

Typically used with bike lanes at intersections. Could be used on one and two-way roads.

SHARROW LANES



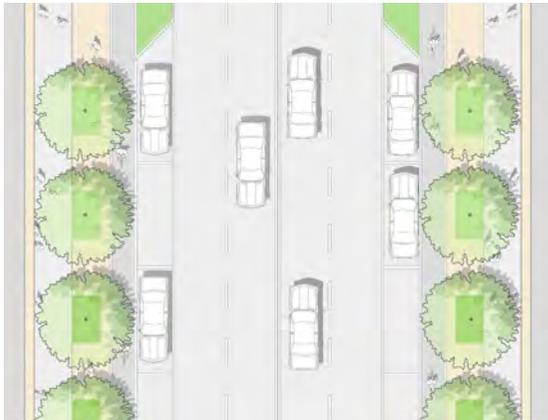
Description

Shared-use; marking used to indicate positions; Marking may be on left side or both sides; often one-way pairs for routing.

Use

Typically installed on streets where space constraints make it impossible to provide bicycle lanes. Shared lane markings should not be used on streets with speed limits higher than 35 mph.

CYCLE TRACK (MAIN STREET / HAMILTON BOULEVARD)

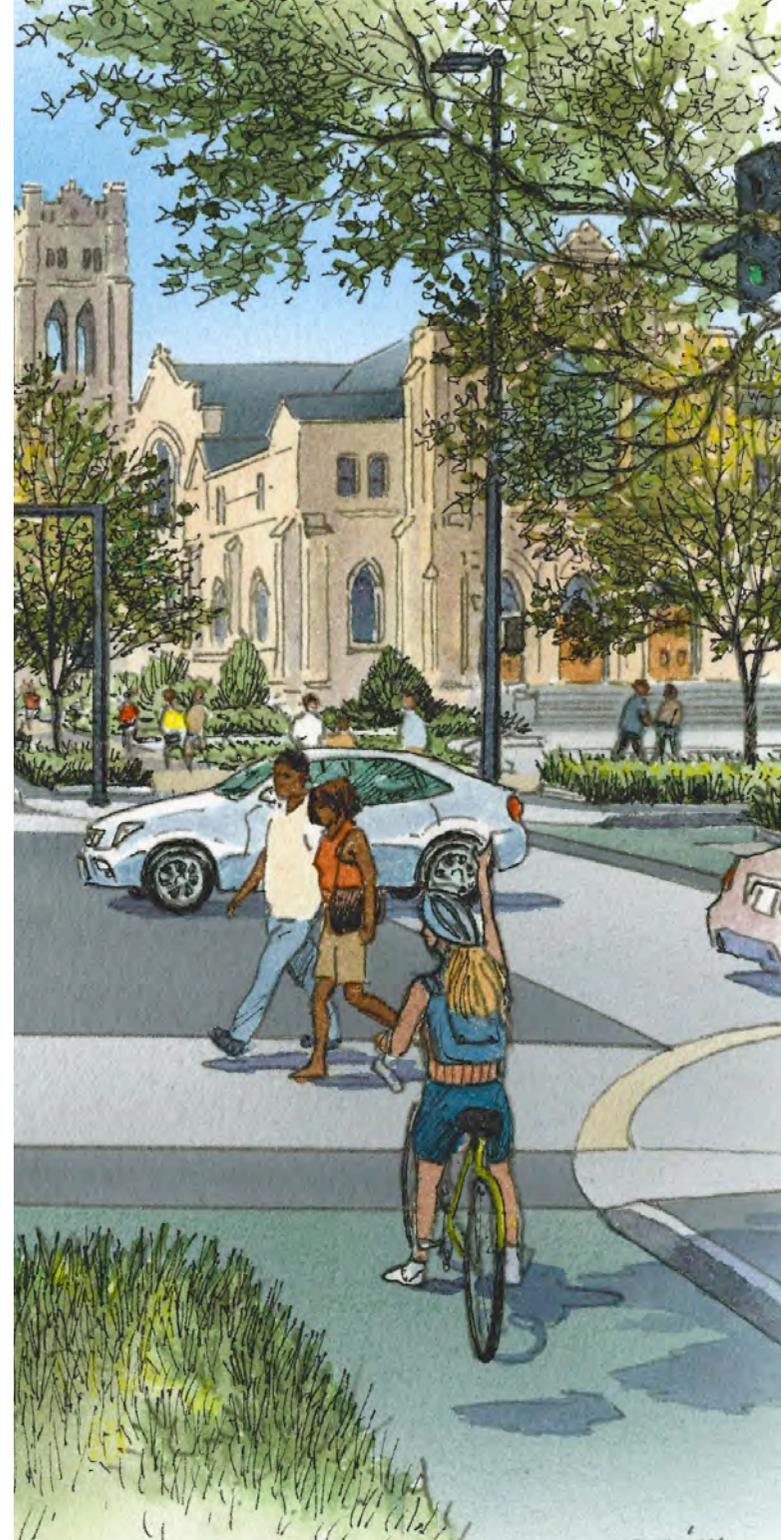


Description

Shared-use; Marking used to indicate positions; marking may be on left side or both sides; often one-way pair for routing.

Use

Typically installed on streets with higher traffic volume and/or speeds, with long blocks and therefore fewer intersections.



7.3

CASE STUDIES

PHILADELPHIA (Laura Spina, City Planning)

Philadelphia's Complete Streets handbook states that bike lanes are more helpful on streets with average daily motor vehicle traffic equal to over 3,000 or posted speeds of 25 mph or greater.

Cycle tracks are used to help provide Philadelphia bikers with a higher level of comfort by mitigating the risk of 'dooring', or collisions with over-taking vehicles. Cycle tracks do take up more space than normal bike lanes, therefore they should only be implemented on streets with the appropriate width.

BOSTON (Denise Dabney, City Planning)

Boston's Boston Bike Network Plan suggests bike facilities such as way-finding and other municipalities to coordinate regional way-finding and signage (primary routes, transit routes, neighborhood centers and squares, parks and institutions, and other major destinations).

Streets with angled parking and bike lanes are to be switched to reverse-angled parking (back-in) to increase visibility of bicyclists when exiting spaces.

SALT LAKE CITY (Complete Streets Policy, SLC)

Salt Lake City found that with their downtown's wide and long roads, vehicular traffic speed was high, and therefore dangerous for bicyclists. In this case, the city promoted safe operation of bicyclists in mixed traffic and motorists' awareness of bicyclists, since bicycles were forbidden from riding on the sidewalks.

SAN FRANCISCO (Adam Varat, City Planning)

San Francisco's Better Streets plan emphasizes the importance of bulb-outs, not only to provide more significant public space for the pedestrian, but also as a barrier to vehicular traffic.

PORTLAND

Portland's Neighborhood Greenway Initiative converted and expanded existing Bicycle Boulevards into a network of Neighborhood Greenways, or residential streets designed to prioritize bicycles and pedestrians over automobile traffic. Typically, greenway speed limits are 20 mph. The Neighborhood Greenways initiative uses speed bumps to achieve the desired 20 mph operating speed.



