

Section 9: WORKING ON BICYCLE ROUTES

The San Francisco Bike Route network map is shown online here:

<https://www.sfmta.com/maps/san-francisco-bike-network-map>

Contractors are prohibited from closing bicycle paths, lanes and routes. A Special Traffic Permit (STP) is required to close these facilities. The minimum clear width of a temporary or rerouted bike lane is 5 feet. Additional requirements are described in this section.

Sometimes there is only room for a reversible bike lane. The lane must be minimum 5' width and controlled by flaggers on each end. A reversible bike lane is preferred over re-routing bicycles to other streets. A Special Traffic Permit is required.

At locations requiring vehicular detours, contractors should allow bicycles adjacent to the construction zone, if a minimum 5' path can be provided. This is intended to minimize routing bikes up hills or onto arterial streets.

9.1 Types of Bike Routes

A. Bike Paths (Class 1)

Class 1 paths are off-street paths (usually concrete or asphalt) for one-way or two-way bike routes which provide a dedicated right of way separate from roadways. Some paths, referred to as "Multi-Use Paths" include right of way space for pedestrians.

Construction on off-street bike paths requires an alternate route for bicyclists by providing either:

1. an alternate paved path or;
2. a temporary bike lane on the street.

Re-routing of bicyclists from an off-street path requires a Special Traffic Permit (STP).

B. Bike Lanes (Class 2)

1. Bike lanes are striped lanes on roadways for the exclusive use of bicycles. Contractors shall maintain all existing bike lanes or shall provide an alternate temporary bike lane. Temporary bike lanes may be delineated using cones or temporary tape and must provide a minimum clear width of 5 feet.
2. Shifted bike lanes (for example shifting into parking strips) do not require traffic permits (STP). Tow-Away may be posted in parking strips (curbside or floating) to make room for temporary bike lanes.

3. Closing a traffic lane to create a temporary bike lane: On multi-lane arterials, where vehicular traffic is often travelling at higher speeds, bike lanes may be maintained by closing a traffic lane and shifting the bike lane into the closed traffic lane. This keeps bicycles separate from vehicular traffic, which is preferred. This may be done without a Traffic Permit (STP) if the lane closure complies with Section 3 and Table 1 of this manual. Temporary bike lanes require the following traffic control devices (see sign images in Appendix “E”):
 - a. “⚡ BIKE LANE” sign at the entrance to the temporary lane,
 - b. “⚡ BIKE LANE” signs at 100-foot intervals along its length
4. Any existing bike lane that is effectively narrowed to less than 5 feet** is considered a bike lane closure and will require a STP.

Bike lane closures require the following traffic control devices (see sign images in Appendix “E”):

- a. “BIKE LANE CLOSED AHEAD” sign
- b. “BICYCLISTS ALLOWED USE OF FULL LANE” signs
- c. “Bicycle Route Detour” signs (if route is detoured)***
- d. Coned or striped transition to close the bike lane
- e. Flagger to assist bikes to merge with live traffic

A bike lane closure will require an approved Special Traffic Permit (STP) or City Contract Specification.

**Exceptions: A number of existing bikes lanes in San Francisco are 4 feet wide; for these a traffic permit (STP) is required if it needs to be narrowed to less than 4 feet or closed.

***refer to Section 9.2 E when more than one bike route is impacted

5. Consideration of road grade:
 - a. Bicycle traffic cannot match the speed of vehicle traffic going uphill. When working on such streets the uphill bike lane must be maintained. The contractor traffic control plan can propose closing or shifting traffic lanes, closing and merging the downhill bike lane, use of parking strips or other measures approved by the SFMTA Traffic Engineer.
 - b. Bike lanes on flat terrain or in the downhill direction may be closed with an approved Special Traffic Permit, as bicycles can maintain reasonable speed in traffic.

C. Bike Routes (Class 3)

1. Class 3 bike routes are bicycle routes that do not provide exclusive space on the road for bikes. Bicyclists ride in the vehicular traffic lanes. These routes are usually marked with painted bicycle sharrows (a marking showing where a bicycle is expected to ride within a lane) and/or bike route signage. Some bike routes have no pavement markings or signs, and may only be shown on the San Francisco Bike Network Map (refer to online link at the top of this section).

In general, contractors may alter roads as described in this manual in “Section 3 – Lane Closure Requirements” and expect that bikes will ride with vehicular traffic. The minimum lane width required to accommodate mixed bicycle and vehicle traffic is 10 feet.

If the work zone only provides adequate room for a 9’ or narrower lane the roadway may need to be reconfigured by means of lane shifts or other means to provide a temporary bike lane. The following traffic control devices (see sign images in Appendix “E”) will be required for the temporary bike lane:

- a. “⚡ BIKE LANE” sign at the entrance to the temporary lane,
- b. “⚡ BIKE LANE” signs at 100-foot intervals along its length
- c. Cones or striped lane lines to delineate the bike lane

This may require an approved Special Traffic Permit (STP) or City Contract Specification.

2. Where sharrows are painted on the road, and the lane is shifted, contractors are required to:
 - a. Remove or cover the existing sharrow markings
 - b. Install temporary sharrow markings in the center of the temporary shifted lane. The SFMTA engineer will evaluate to determine whether temporary sharrow markings are required as part of Special Traffic Permit (STP) preparation.
3. Closures of bike routes (where bicycles are directed off-route) require a valid Special Traffic Permit (STP) and a viable detour for bicyclists.

9.2 Handling Bicycles at Special Locations

- A. Preventing Conflicts between Bicycle Through Traffic and Vehicle Right Turn Traffic (Preventing Right Hook Conflicts)
1. At locations approaching signalized intersections, painted bike lanes may be merged, shifted or removed to make a shared through bike lane and right turn pocket. Contractors must route bikes to the left side of right turning vehicles either via flagging, temporary striping or other means.
 2. At intersections along a bike route, where no bike lane is present, the contractor must make provisions to mitigate conflicts between through bicycles and vehicular right turns. Where this condition exists due to a construction work zone modified roadway, the contractor must provide a flagger or PCO to mitigate this condition; or install temporary striping to route bicycles to the left side of right turning vehicles.



Fig. 9.1
Illustration of elements for shifting a bike lane to the left side of right turning vehicles

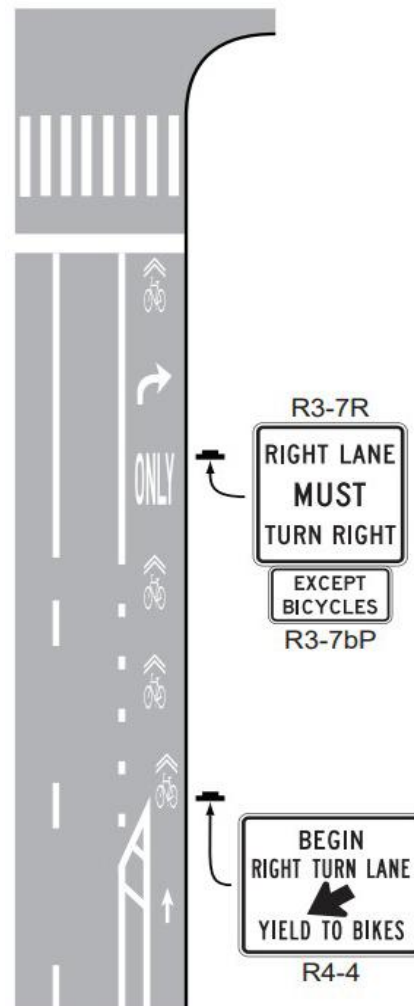


Fig 9.2
Merging a bike lane with a right turn vehicular lane. (CA-MUTCD Fig 9E-5)

B. Two-Way Cycle Tracks

These facilities provide for both directions of bicycle traffic on one side of the road, resulting in one direction where bikes ride in a contraflow direction. Construction that affects or closes the contraflow direction will require a Special Traffic Permit. If the two-way cycle track must be decoupled the contraflow bicycles may need to be rerouted to the opposite side of the street so those bikes and traffic move in the same direction. The transition must be implemented at an appropriate location such as an intersection. A second option is detouring bicycle traffic via signage and temporary striping.

C. Closures Resulting in Bikes Crossing Railroad Tracks

When bicyclists are forced to leave a bike facility and cross a track to continue riding, they may be required to cross the track at an angle. Contractors shall post a W10-12 “Skewed Crossing” sign (see sign image in Appendix “E”) so that less experienced bicyclists may choose to dismount or detour.

D. Signalized Intersections with Bike Phases

Some traffic signals have signal phases for bicycle movements separate from vehicle through and turn phases. At these locations at least one lane for each movement must be maintained and kept open (bike, through, left, and right turn movements as applicable). If this is not possible, a Special Traffic Permit will be required. Circumstances may require a parking control officer, signal modification and/or restrictive work hours with the signal put into flash operation.

E. Multiple Bike Routes Detoured

When more than one bike route is present and one or more is detoured, signage must indicate the specific route that is being detoured (either the numbered route in the network) or an assigned temporary number or letter, using SG45 (SF) series logo signs in Appendix “E”.

F. Reversible Bike Lanes

Reversible bike lanes must be minimum 5' width and controlled by flaggers on each end. A Special Traffic Permit is required. The following traffic control devices shall be posted (see sign images in Appendix "E"):

"↙ BIKE LANE" sign at the entrance to the temporary lane

G. "Except Bicycles" Signs

When allowing bikes through where vehicles are detoured, "Except Bicycles" SF-B2 signs (see sign images in Appendix "E") shall be installed in combination with the following signs posted on the vehicular street being detoured: "Detour Ahead", "Road Closed Ahead", "Detour" Arrow signs, etc.