San Francisco Bicyclind By Caren Jasnine Balance

## Why bicycle?

- **Environmental friendly**
- Economically advantaged
- Physically beneficial

The city is known for its limited/high cost of parking and constant traffic thus making bicycling a desirable option.

But the city's landscape, level of development, populated community make it difficult for a bicyclist to have a safe environment to travel in.

Therefore, cycling organizations and community support have worked toward

improving this challenge.



# The beginning of bicycling signage

- 1973, the adoption of SF's Transit policy identified bicyclists and pedestrians at the top of transportation policies.
  - "Travel by public transit, by bicycle, and on foot must be an attractive alternative to travel by private automobile"
  - Decisions regarding the use of limited public street and sidewalk space shall encourage the use of public rights of way by pedestrians, bicyclists, and public transit"
  - Bicycling shall be promoted by encouraging safe streets for riding, convenient access to transit, bicycle lanes, and secure bicycle parking."



## San Francisco Bicycle Plan

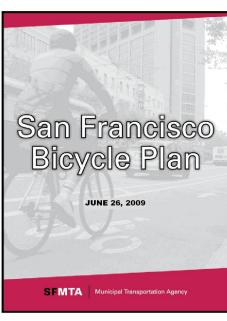
First published in 1997, but later revised and implemented in 2009.

- Included guidelines toward creating a safe and attractive environment to promote bicycling as a transportation mode.
- Five year master plan and ambitious roadmap to boost biking to new heights of safety and convenience.

Outlines sixty improvement projects and long term opportunities for bike route upgrades.

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SF BIKE PLAN





The 2009 Bike Plan calls for:

-adding 34 miles of bike lanes to the existing 45 miles

-marking 75 miles of on-street bike routes with arrows

-experimenting with colored -pavement for bike lanes

-thousands of new sidewalk bike parking racks

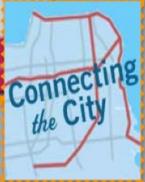
-on-street bike parking corrals

programs to boost bike access to transit

-bicycle-related planning and enforcement policies

-programs for bicyclist and motorist education







double the number of bike lanes we did it!

### SF's Bicycle Plan policy Framework

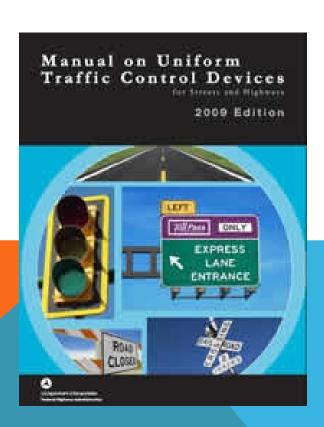
- · increase safe bicycle use
- refine and expand existing bicycle route network
- · ensure plentiful high-quality bicycle parking
- adopt bicycle friendly practices and policies
- · promote safe bicycling
- · increase enforcement of violations
- and prioritize bicycle funding

Indicates how the bicycle community in SF is implementing great change through San Francisco Municipal Transportation Agency (SFMTA), San Francisco Bicycle Coalition (SFBC), the Bicycle Advisory Committee (BAC), and many other organizations.



#### Manual on Uniform Traffic Control Devices

- · Responsible for all roadway signs, markings, and signals
- Determine design, placement, and application to effectively promote read safety
- Part 9 of the manual contains the information regarding the signs, signals, and markings for bicycle facilities.





#### The Bike Lane

 Defined as "a portion of the roadway which has been designated by striping, signing, and pavement marking for the preferential or exclusive use by bicyclists."

History began as far back as the 1900's where residents requested the SF Department of Public Works install stop signs and bike lanes to calm traffic measures.

→ San Francisco's First Bike Lane was created on May 23, 1971



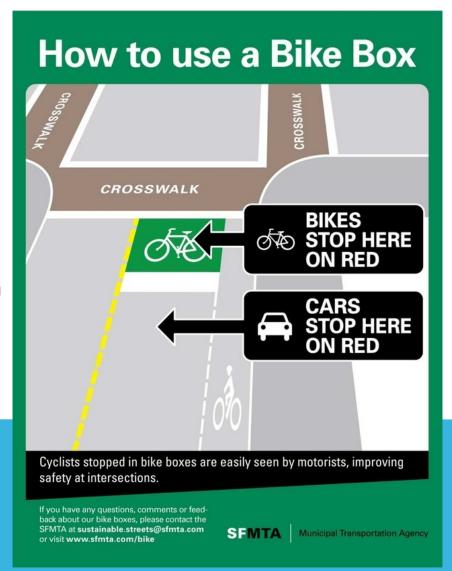
#### The bike lane

- Motor vehicle drivers are aware of where bicyclists should be, and the movement and direction of bicyclists are more predictable.
- Bicycle lanes typically are one-way, on the right side of the road, and located in between the parking lane (if there is one) and the travel lane.
- Design consists of a vertical symbol of a person wearing a helmet and riding a bicycle, along with an arrow pointing to the direction of traffic flow.
- Colored bike lanes have been a feature of bicycle organizations in other countries such as France (green), Denmark (blue), and Netherlands (red) for many years. In the United States, however, there have only been a few locations who have to tried to implement this approach.



#### The bike box

- Designed to prioritize the movement of bicycles along with motor vehicles
- Improve the visibility and positioning of bicyclists at intersections with traffic signals.
- Increase pedestrian safety by providing a divided area for bicyclists and decrease violation into crosswalks.
- Serves as a "bicycle only" wait area between the automobile traffic and crosswalks
- Design consists of a green box with a white bicycle figure inside and advance line to stop other vehicles from entering
- Retro-reflective materials, small glass beads, and micro prismatic reflectors are mixed into the green thermoplastic material filling the bike boxes = reflect light and can see at night.



#### **REGULATORY SIGNS**

Give notice of traffic laws or guidelines

- Typically red, white, and black color scheme.
- Inform bicyclists about rules they are expected to follow depending on where they are.

Figure 9B-2. Regulatory Signs for Bicycle Facilities









R3-17b













WITH

TRAFFIC





R5-3







R7-9a















R9-5

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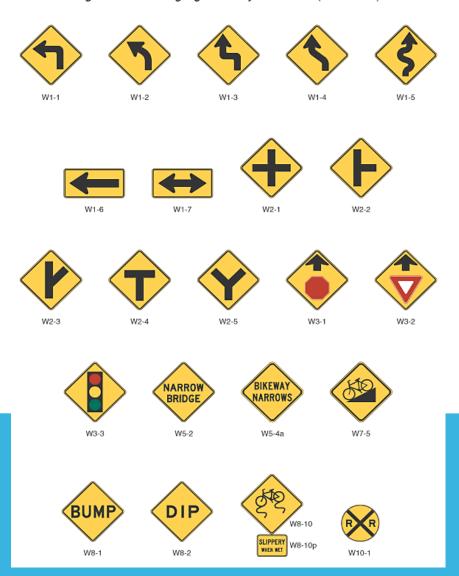
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R15-1

#### **WARNING SIGNS**

- Call attention to conditions on a street or highway that are potentially hazardous to traffic operations
- Typically black and yellow color scheme.

Figure 9B-3. Warning Signs for Bicycle Facilities (Sheet 1 of 2)



#### **GUIDE SIGNS**

- identify and show destinations such as streets, freeway exits, and directions to other places
- contain geographical, recreational, or cultural information as well
- Typically white and green color scheme.

Figure 9B-4. Guide Signs for Bicycle Facilities





























M7-6

- San Francisco's Municipal Transit Agency installed the first bike signal adjacent to Golden Gate Park's panhandle back in 2008.
- Purpose is to specifically regulate bicycle traffic as green is for go, yellow is for yield, and red for stop. (color coded bicycle symbol)
- The Golden Gate Bridge in San Francisco has even recently installed Traffic Logix Safe Pace 100 radar speed signs.

Encourages safer bicycling as a select are able to monitor and self-regulate

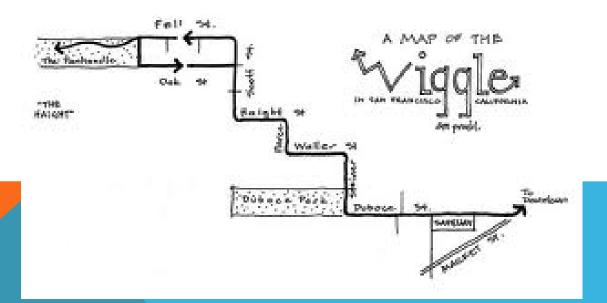
their own speeds.



### Bicycle Route

#### THE WIGGLE

- One-mile zigzag bicycle route from Market St. to Golden Gate Park
- Exclusively for bicyclists, this pathway minimizes hilly inclines at an average of 3% and never exceeds 6% so that they have a chance to easily ride and reconstitute the way traffic flows



### 2008 San Francisco State of Cycling Report

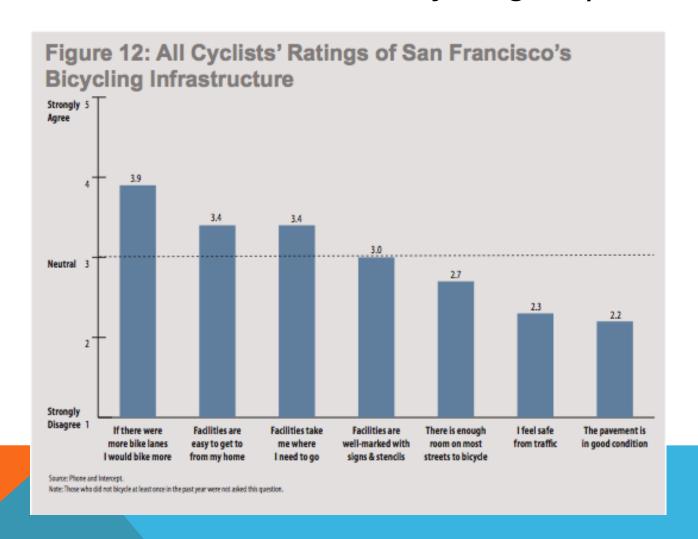
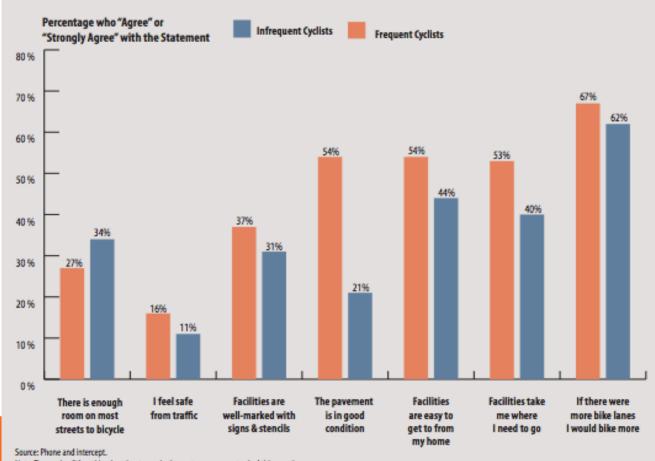


Figure 13: Frequent and Infrequent Cyclists' Perceptions of San Francisco's Bicycling Infrastructure



Note: Those who did not bicycle at least once in the past year were not asked this question.

#### ALL IN ALL,

- Since this 2008, there have been great efforts to change the attitudes of bicyclists as evident through the implementation of the 2009 Bicycle Plan and what they have done to improve upon their requests.
- The efficiency of bicycle signage has greatly improved since the government and advocacy groups have taken initiative into making sure the implementation of signs and safety procedures are assembled.
- The San Francisco Municipal Transportation Agency identifies and supports the increased popularity of bicycling and the associated environmental, health, and transportation benefits.
- San Francisco continues to have a high rate of bicycling, and the city will continue to support it through infrastructure and programmatic improvements.

