



NAPA VALLEY TRANSPORTATION AUTHORITY TAC Agenda Letter

TO: Technical Advisory Committee
FROM: Kate Miller, Executive Director
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SUBJECT: Bicycle Lane Classifications-Update

RECOMMENDATION

Information only

EXECUTIVE SUMMARY

NVTA staff will provide TAC members with descriptions and information on bicycle facility classifications with a focus on the newest facility types and the benefits each facility provides for completing a connected bicycle network for users of all ages and abilities.

FISCAL IMPACT

None

BACKGROUND AND DISCUSSION

The American Association of State Highway Transportation Officials (AASHTO) defines a bike lane as *“a portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.”* Bicycling is increasing not only as a form of recreation, but as a viable form of transportation. Consequently, state, regional and county goals have been established that support increasing the bicycle transportation mode share up to 10% by the year 2040.

The California Manual on Uniform Traffic Control Devices 2014 (MUTCD) and the Highway Design Manual (HDM) provide guidance for municipal officials on bicycle facility design. In 2014, Caltrans design division endorsed the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide. The NACTO guide

is the result of efforts by a national team of bicycle facility experts to create a standardized set of treatments to create safer bicycling conditions.

In addition, the U.S. Department of Transportation Federal Highway Administration (FHWA) safety division promotes innovative approaches to bicycle facility design and has published numerous design guidebooks, webinars and reports promoting proven countermeasures for safer bicycle facilities:

http://safety.fhwa.dot.gov/ped_bike/

There are four (4) Bikeway Facility Classifications (Section 890.4 HDM):

- **Class I** - Bike paths or shared use paths, also referred to as “Class I bikeways,” which provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized.
- **Class II** - Bike lanes, also referred to as “Class II bikeways,” which provide a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted
- **Class III** - Bike routes, also referred to as “Class III bikeways,” which provide a right-of-way on-street or off-street, designated by signs or permanent markings and shared with pedestrians and motorists.
- **Class IV** - Cycle tracks or separated bikeways, also referred to as “Class IV bikeways,” which promote active transportation and provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway and which are protected from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking. This classification was added in 2014 when the governor signed AB1193 (Ting) “Protected Bikeways Act” into law.

The different facility types provide a cycling environment for all types of riders. There are typically four categories used to describe the on-street comfort level of bicyclists:

- Strong and Fearless (< 1%)
- Enthused and Confident (7%)
- Interested but Concerned (60%)
- No Way No How (33%)

Creating a network using a combination of all four facility types provides a safe, comfortable environment for users of all ages and abilities. Designing connected on

and off-street facilities that encourage the “Interested but Concerned” group could significantly advance the goal of increasing the bicycle transportation mode share to 10% by 2040.

Measure T funding can provide the needed funding for upgrading bicycle facilities as part of improving local streets and roads. Incorporating bicycle facilities with repaving projects is a cost effective way to achieve connected bicycle networks and to implement complete streets throughout all jurisdictions.

SUPPORTING DOCUMENTS

Attachment(s): (1) Power Point PDF

BICYCLE FACILITY CLASSIFICATIONS UPDATE



Technical Advisory Committee
Thursday May 4, 2017



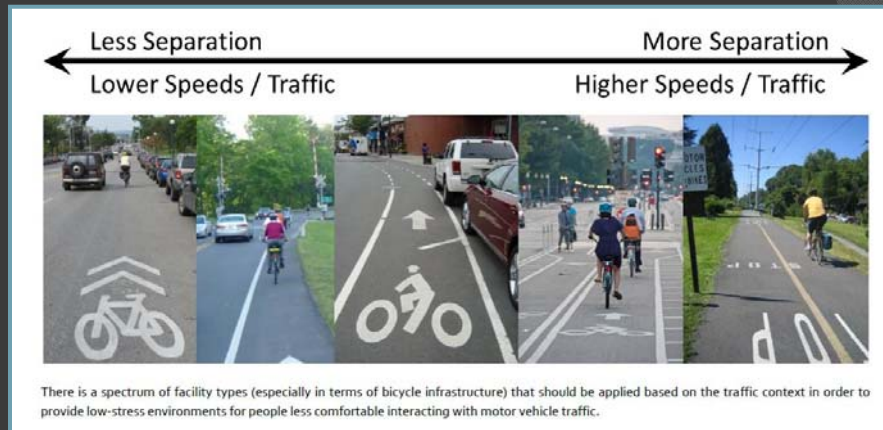
State Goal

Sustainability, Livability and Economy

- Strategic objective to improve the quality of life for all Californians by providing mobility choice
- Increase non-auto modes by 2020
 - **Triple bicycle**
 - Double pedestrian
 - Double Transit



Low Stress vs High Stress



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Creating low stress bicycling networks:

- Variety of facility types that accommodate all types of riders and varying comfort levels
- Wayfinding and signage
- Connections to schools, transit, employment and shopping
- High visibility pavement markings, particularly in conflict zones

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People fall into one of four categories when it comes to bicycle riding:



Strong and Fearless



Enthusied and Confident

Strong and Fearless:

fine with all roads they are allowed to travel on.

Enthusied and Confident:

prefer to have bike lanes or bike paths that define a space for bicycle travel.



Interested but Concerned



No Way, No How

Interested but Concerned:

prefer little or no interaction with motor vehicles.

No Way, No How: will not be riding a bicycle.

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Bicycle Lane Description

The American Association of State Highway Officials (AASHTO) defines a bicycle lane as:

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



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Bicycle Facility Classifications

- Four types of facility classifications
 - Class I (off-street)
 - Class II (on-street)
 - Class III (shared, on-street)
 - Class IV (separated, exclusive use)

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Newest Facility Classification

Class IV (Cycle Tracks or Separated Bikeways-
AB1193 (Ting) 2014)

- Adjacent to the roadway
- Exclusive use for bicycles
- Vertical separation
 - Curbs
 - Planter strips
 - Inflexible barriers
 - Flexible posts
 - Parking

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Class IV Facilities

- Cycle Tracks
- Separated Bikeways



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Class IV –Transit Stop

Parking protected



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Curb protected



Painted buffer and flexible posts and parking

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Class IV Two-way



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◉ Class II – Bike lanes

- Restricted right-of-way designated for exclusive or semi-exclusive use of bicycles
- Through travel by motor vehicles or pedestrians prohibited
- Vehicle parking and crossflows by pedestrians and motorists permitted
- Multiple types of Class II treatments

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Class II Facilities-Green Lanes



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Class II Facilities-Buffered



Wide buffer and green paint at conflict zone-Freeway onramp/underpass treatment

Door zone buffer and travel lane buffer



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Consider Incorporating on-road bicycle networks into resurfacing projects

- Efficient cost-effective way to create connected networks
- Enhances access to jobs, schools and services
- Creates safer more comfortable roadways for all users
- More efficient than putting in the same facility as a stand-alone project
- FHWA supports integrating bicycle facilities into roadway projects

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CA State Law requires vehicles give 3 feet minimum when passing a cyclist (Three Feet for Safety Act-2014 AB 1371)



CVC Section 21760

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Links:

- https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/index.cfm
- <http://www.pedbikeinfo.org/>
- <http://www.dot.ca.gov/d4/transplanning/pedbikeprogram.html>
- <https://napabike.org/>

Questions



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