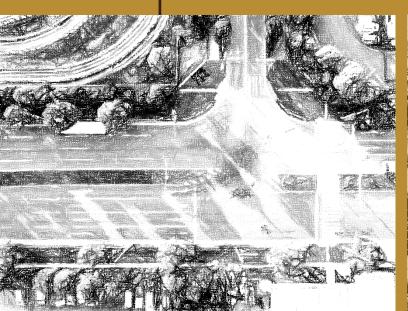
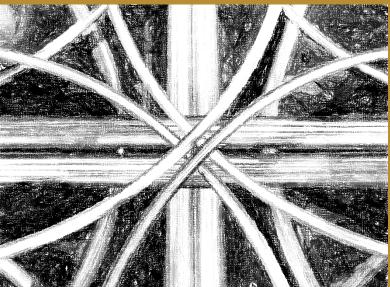
E-BIKES & E-SCOOTERS SAFETY THROUGH EDUCATION & COOPERATION

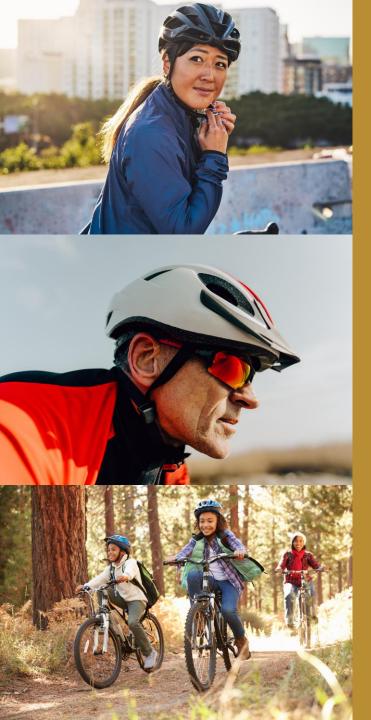
RISING POPULARITY

- Although, not new tech. Smaller, lighter, and cheaper
- Multimodal emphasis in transportation projects









SAFETY EDUCATION

- Safety through education about laws
- Reduce accidents and injuries





E-ASSIST BIKES

- Must have fully operable pedals
- Electric motor must be less than 750 watts

- Class I Assist when pedaling. Stops assisting at 20 mph.
- Class 2 Motor may exclusively propel bike up to 20 mph.
- Class 3 Assist when pedaling. Stops assisting at 28 mph. Must be 16.

E-SCOOTERS (MOTORIZED SCOOTER)

• 407.5 VC

- (a) A "motorized scooter" is any two-wheeled device that has handlebars, has either a floorboard that is designed to be stood upon when riding or a seat and footrests in place of the floorboard, and is powered by an electric motor. This device may also be designed to be powered by human propulsion. For purposes of this section, a motorcycle, as defined in Section 400, a motor-driven cycle, as defined in section 405, or a motorized bicycle or moped, as defined in Section 406, is not a motorized scooter.
- (b) a device meeting the definition in subdivision (a) that is powered by a source other than electrical power is also a motorized scooter.

E SCOOTERS



E-SCOOTERS (MOTORIZED SCOOTERS)

21235VC

- The operator of a motorized scooter shall not do any of the following:
 - Operate a motorized scooter unless it is equipped with a brake that will enable the operator to make a braked wheel skid on dry, level, clean pavement.
 - Operate a motorized scooter on a highway with a speed limit in excess of 25 miles per hour unless the motorized scooter is operated within a Class II or Class IV bikeway, except that a local authority may, by ordinance or resolution, authorize the operation of a motorized scooter outside of a Class II or Class IV bikeway on a highway with a speed limit of up to 35 miles per hour. The 15 mile per hour maximum speed limit for the operation of a motorized scooter specified in Section 22411 applies to the operation of a motorized scooter on all highways, including bikeways, regardless of a higher speed limit applicable to the highway.
 - Operate a motorized scooter without wearing a properly fitted and fastened bicycle helmet that meets the standards described in Section 21212, if the operator is under 18 years of age.
 - Operate a motorized scooter without a valid driver's license or instruction permit.
 - Operate a motorized scooter with any passengers in addition to the operator.

E-SCOOTERS (MOTORIZED SCOOTERS)

• 21235 VC

- The operator of a motorized scooter shall not do any of the following:
 - Operate a motorized scooter carrying any package, bundle, or article that prevents the operator from keeping at least one hand upon the handlebars.
 - Operate a motorized scooter upon a sidewalk, except as may be necessary to enter or leave adjacent property.
 - Operate a motorized scooter on the highway with the handlebars raised so that the operator must elevate his or her hands above the level of his or her shoulders in order to grasp the normal steering grip area.
 - Leave a motorized scooter lying on its side on any sidewalk, or park a motorized scooter on a sidewalk in any other position, so that there is not an adequate path for pedestrian traffic.
 - Attach the motorized scooter or himself or herself while on the roadway, by any means, to any other vehicle on the roadway.

CLASS I BIKEWAY CLASS III BIKEWAY

Path

Class I bikeways, also known as bike paths or shared-use paths, are facilities with exclusive right of way for bicyclists and pedestrians, away from the roadway and with cross flows by motor traffic minimized. Some systems provide separate pedestrian facilities.

Class I facilities support both recreational and commuting opportunities. Common applications include along rivers, shorelines, canals, utility rights-of-way, railroad rights-of-way, within school campuses, or within and between parks.

REFERENCE: HOM INDEX 1003.1

CAMPLICES SECTION 2023.2



Vine Trail, Napa Valley



Bay Bridge Trail, Oakland



2nd St, Oakland



Milvia St, Berkeley

Bike Route

Class III bikeways, or bike routes, designate a preferred route for bicyclists on streets shared with motor traffic not served by dedicated bikeways to provide continuity to the bikeway network. Bike routes are generally not appropriate for roadways with higher motor traffic speeds or volumes. Bike routes are established by placing bike route signs and optional shared roadway markings (sharrow) along roadways.

REFERENCE: HDM INDEX 1003.3;
CAMUNCD SECTION 9.C. 07

Bicycle Boulevard

A Bicycle Boulevard is a shared roadway intended to prioritize bicycle travel for people of all ages and abilities. Bicycle Boulevards are typically sited on streets without large truck or transit vehicles, and where traffic volumes and speeds are already low, or can be further reduced through traffic calming.

REFERENCE: NACTO URBAN BIKEWAY DESIGN GUIDE/ BICYCLE BOULEVARDS; CAMUTCD SECTION 9C.07

CLASS II BIKEWAY

CLASS IV BIKEWAY

Bike Lane

Class II bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel. Bike lanes are one-way facilities, typically striped adjacent to motor traffic travelling in the same direction. Contraflow bike lanes can be provided on one-way streets for bicyclists travelling in the opposite direction.

REFERENCE: HDM INDEX 301.2; CAMUTCD SECTION 9C.04

Buffered Bike Lane

A buffered bike lane provides greater separation from an adjacent traffic lane and/or between the bike lane and on-street parking by using chevron or diagonal markings. Greater separation can be especially useful on streets with higher motor traffic speeds or volumes.

REFERENCE: CAMUTCD SECTION 9C.04, FIGURE
9C-104(CA); NACTO URBAN BIKEWAY DESIGN GUIDE/
BIKE LANES/ BUFERFED BIKE LANES



State Route 12, the Springs Region of Sonoma



Sloat Blvd. State Route 35, San Francisco



Fulton St, Berkeley



Division St. San Francisco

Separated Bikeway/ Cycle Track

A Class IV separated bikeway, often referred to as a cycle track or protected bike lane, is for the exclusive use of bicycles, physically separated from motor traffic with a vertical feature. The separation may include, but is not limited to, grade separation, flexible posts, inflexible barriers, or on-street parking. Separated bikeways can provide for one-way or two-way travel.

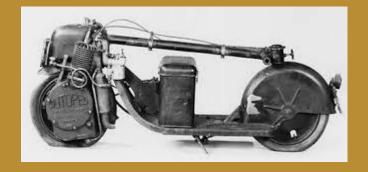
By providing physical separation from motor traffic, Class IV bikeways can reduce the level of stress, improve comfort for more types of bicyclists, and contribute to an increase in bicycle volumes and mode

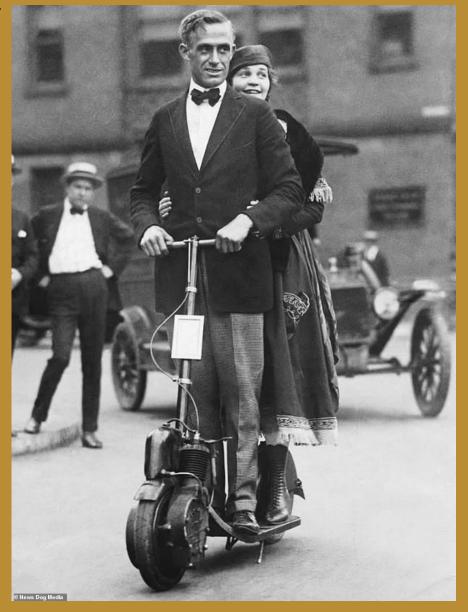
REFERENCE: CALTRANS DESIGN INFORMATION
BULLETIN 89 — CLASS IV BIKEWAY GUIDANCE; FHWA
SPARATED BIKE LANE PLANNING AND DESIGN GUIDE;
NACTO URBAN BIKEWAY DESIGN GUIDE/CYCLE TRACKS

HISTORY

- Added in the 1999/2000 session SB411
- Amended in 2003/2004 session AB1878
- Amended in 2017/2018 session AB2989

HISTORY







HISTORY



POCKET BIKES / MINI MOTORCYCLES

Operation on private property only

Illegal on highways, sidewalks, bikeways, hiking or recreational trails

- 473 VC
 - Two-wheeled
 - Motorized
 - Seat or saddle
 - Not designed or manufactured for highway use
 - Highway Use
 - Must meet the applicable FMVSS, Title 49 of Code of Federal Regulations and is equipped.

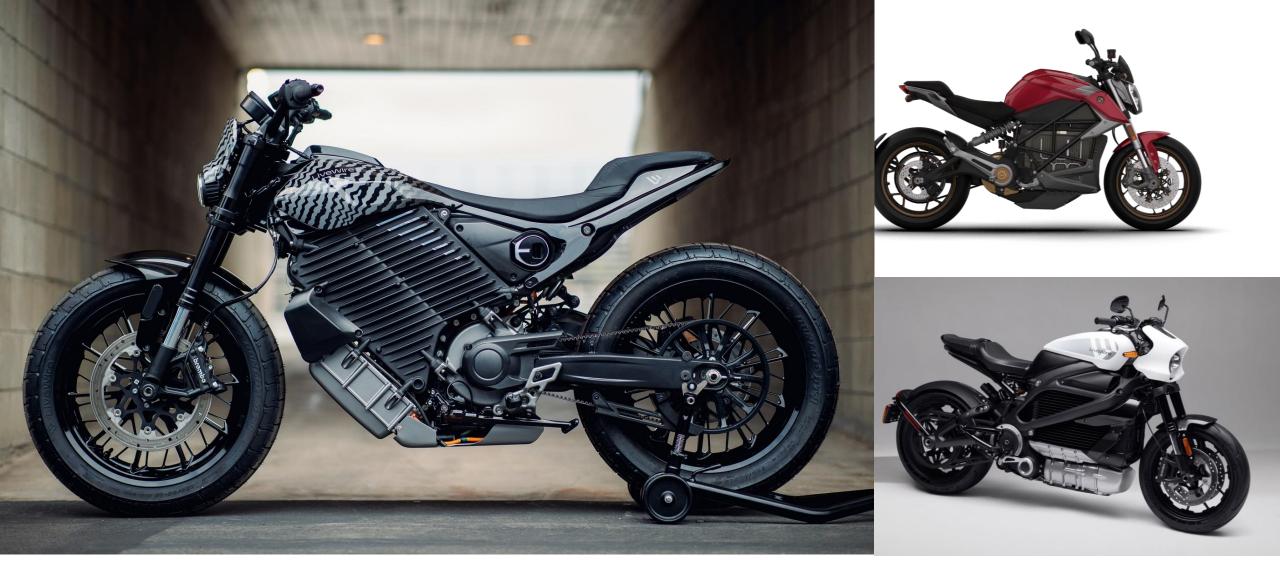






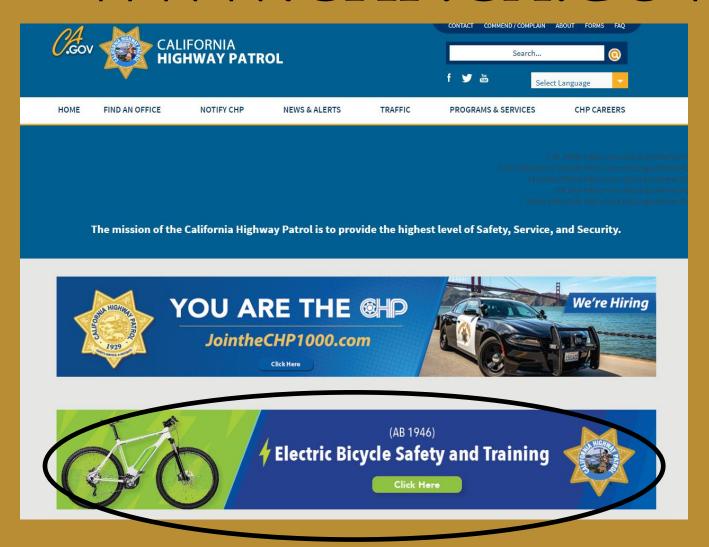






E MOTORCYCLES

WWW.CHP.CA.GOV



WWW.CHP.CA.GOV



Motorcycles and Similar Vehicles

Motorcycle

A motorcycle is a motor vehicle that has a seat or saddle for the use of the rider, and is designed to travel on not more than three wheels in contact with the ground per California Vehicle Code (CVC) 400 (a) and whose motor displaces more than 150 cubic centimeters (150cc).

- Two-wheeled motorcycles require an M-1 endorsement.
- Three-wheeled motorcycles or motorcycles with an attached sidecar require only a Class C driver license per CVC 12804.9.
- A Department of Transportation (DOT) compliant helmet is required.



Programs & Services Programs California Motorcyclist Safety Motorcycles and Similar Vehicles Community Service Survey

Motor-driven cycle

A motor-driven cycle is a motorcycle with a motor that displaces less than 150cc per CVC 405.

Two-wheeled motor-driven cycles require an M-1 endorsement.