

'It's not just how comfortable you are - it's How you Ride!

- 1: Road Using:** Operate your bicycle legally as part of TRAFFIC
- 2: Edge Riding:** Riding near edge - in Bike Lane, gutter, out of traffic...
- 3: Side Walk Riding:** Use sidewalks & trails - pedestrian right of way...

California Bicycle Regulations: CVC Division 11, Chapter 1, Article 4

A **person** riding a bicycle or operating a pedicab upon a highway has all the rights and is subject to all the provisions applicable to **the driver** of a vehicle by this division, including, but not limited to, provisions concerning driving under the influence of alcoholic beverages or drugs, . . . except those provisions which by their very nature can have no application. [21200](#) (a) ***(A bicycle is not a vehicle but a driver is a driver)***

Bicycle Equipment. [21204](#)

Seat (a) A person operating a bicycle upon a highway shall not ride other than upon or astride a permanent and regular seat attached thereto, unless the bicycle was designed by the manufacturer to be ridden without a seat.

Passengers (b) An operator shall not allow a person riding as a passenger, and a person shall not ride as a passenger, on a bicycle upon a highway other than upon or astride a separate seat attached thereto. If the passenger is four years of age or younger, or weighs 40 pounds or less, the seat shall have adequate provision for retaining the passenger in place and for protecting the passenger from the moving parts of the bicycle.

Brake [21201](#) (a) No person shall operate a bicycle on a roadway unless it is equipped with a brake which will enable the operator to make one braked wheel skid on dry, level, clean pavement. ***(Fixed gears with out brakes are illegal)***

Light & Reflectors [21201](#) (d)

A bicycle operated during darkness (including bikeways and side walks) shall be equipped with all of the following:

- (1) A front **white** light, either on the bicycle or attached to the bicyclist.
- (2) A **red** reflector on the rear.
- (3) A **white or yellow** reflector on each pedal, shoe, or ankle.
- (4) **White or yellow** reflectors on each side of bicycle, both forward and to the rear of center; or reflectorized tires. ***(Minimum! Adding extra lights & reflective clothing helps be seen)***

Helmet [21212](#) (a) A person under 18 years of age shall not operate a bicycle . . . unless that person is wearing a properly fitted and fastened bicycle helmet...This requirement also applies to a person who rides upon a bicycle while in a restraining seat that is attached to the bicycle or in a trailer towed by the bicycle. ***(Skate boards & razors too!)***

Bicycle Operation:

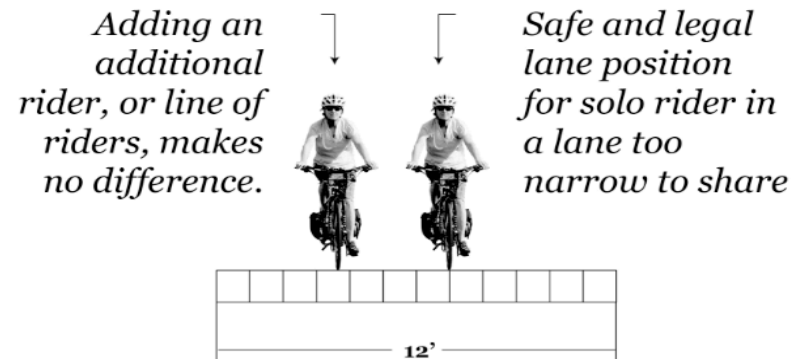
Hitching Rides [21203](#) No person riding upon any motorcycle, motorized bicycle, bicycle, coaster, roller skates, sled, or toy vehicle shall attach the same or himself to any streetcar or vehicle on the roadway.

Carrying Articles [21205](#) No person operating a bicycle shall carry any package, bundle or article which prevents the operator from keeping at least one hand upon the handlebars.

Headsets and Earplugs [27400](#) A person operating a motor vehicle or bicycle may not wear a headset covering, or earplugs in, both ears. Effective 1/16 this has expanded to include ear buds and resting on both ears. SB 491

Group Riding.

There is no law in California restricting the number of bicyclists that may ride side by side in a traffic lane when operating at the speed of traffic or when one or more of the exceptions in [21202](#) (see Roadway Position) applies. If a lane is too narrow to share, bicyclists riding two abreast have no different effect on traffic than bicyclists riding single file in control of a narrow lane. Group s riding two abreast are shorter and easier to pass.



Sidewalk Riding [21950](#), [21952](#), [21954](#)

While there is no state law prohibiting bicycling on sidewalks in California, many cities prohibit sidewalk bicycling throughout the city or in business districts. Pedestrians have the right of way in crosswalks (marked or unmarked) and on sidewalks. Bicyclists are also required to "exercise due care" for the safety of pedestrians in the roadway who are not in a crosswalk.

WITH traffic & on Shoulder ONLY if safe [21650](#)

Upon all highways, a vehicle [or bicycle] shall be driven **upon the right half of the roadway**, except . . .when overtaking and passing another vehicle . . .under the rules governing that movement or . . .when . . .in a lawful position for, and when . . . lawfully making, a left turn; Or when the right half of a roadway is closed to traffic under construction or repair; Or . . .restricted to one-way traffic; Or when the roadway is not

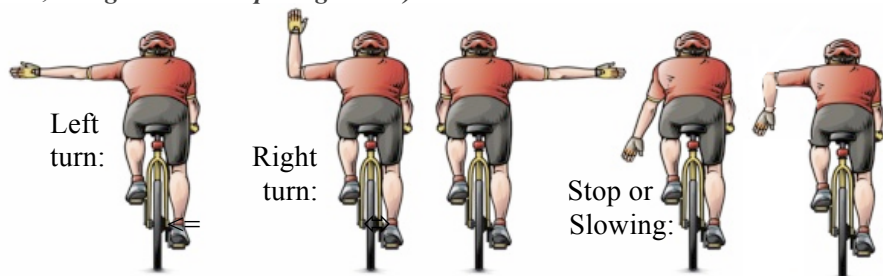
of sufficient width; Or when the [bicycle] is ... traveling so slowly as to impede the normal movement of traffic, that portion of the highway adjacent to the right edge of the roadway **may** be utilized **temporarily** when **in a condition permitting safe operation**. This section does not prohibit the operation of bicycles on any shoulder of a highway, on any sidewalk, on any bicycle path within a highway, or along any crosswalk or bicycle path crossing, where the operation is not otherwise prohibited by this code or local ordinance.

Required Signals [22107](#)

No person shall turn... from a direct course or move right or left upon a roadway until such a movement can be made with reasonable safety and then only after the giving of an appropriate signal... in the event any other vehicle may be affected by the movement.

Leaving a Bicycle Lane [21208](#)

(b) No person operating a bicycle shall leave a bicycle lane until the movement can be made with reasonable safety and then only after giving an appropriate signal ... in the event that any vehicle may be affected by the movement. *(Signal early, look back, merge without impeding others)*



Basic Speed Law [22350](#)

Prohibits the driving of a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property. *(Even if going below the posted speed limit, safe operation may require slowing down. Exceeding a posted speed limit is obviously speeding – bicycle or vehicle)*

Minimum Speed Law [22400](#)

(a) No person shall drive upon a highway at such a slow speed as to impede or block the normal and reasonable movement of traffic, **unless the reduced speed is necessary for safe operation, because of a grade, or in compliance with law.**

Turning Out : Slow-Moving Vehicles [21656](#)

On a two lane highway where passing is unsafe because of traffic in the opposite direction or other conditions, a slow moving vehicle...behind which five or more vehicles are formed in line, shall turn off the roadway at the nearest place designated as a turnout by signs ... or wherever sufficient area for a safe turnout exists, in order to permit the vehicles following it to proceed. As used in this section a slow-moving vehicle is one which is proceeding at a rate of speed less than the normal flow of traffic at the particular time and place. *(Easier to pull over a bicycle so don't wait for 5 cars before turning out... find a safe place & let the 'platoon' go by)*

Overtake & Pass to Left [21750](#)

The driver of a vehicle overtaking another vehicle proceeding in the same direction shall pass to the left at a safe distance without interfering with the safe operation of the overtaken vehicle.

(Bicycles should pass on the left, not filter up on the right)

Three Feet for Safety Act (effective September 16, 2014) [21760](#)

(b) The driver of a motor vehicle overtaking and passing a bicycle ...on a highway shall pass in compliance with the requirements of this article applicable to overtaking and passing a vehicle, and shall do so at a safe distance that does not interfere with the safe operation of the overtaken bicycle, having due regard for the size and speed of the motor vehicle and the bicycle, traffic conditions, weather, visibility, and the surface and width of the highway.

(c) A driver of a motor vehicle shall not overtake or pass a bicycle ...on a highway at a distance of less than three feet between any part of the motor vehicle and any part of the bicycle or its operator.

(d) If the driver of a motor vehicle is unable to comply ... due to traffic or roadway conditions, the driver shall slow to a speed that is reasonable and prudent, and may pass only when doing so would not endanger the safety of the operator of the bicycle, taking into account the size and speed of the motor vehicle and bicycle, traffic conditions, weather, visibility, and surface and width of the highway.

(e) A violation ... is an infraction punishable by a fine of \$35. (2) If a collision occurs ... causing bodily injury to the operator of the bicycle, and the driver of the motor vehicle is found to be in violation, a \$220 fine shall be imposed on that driver.

Littering [23112](#)

(a) No person shall throw or deposit... upon any highway any bottle, can, garbage, glass, nail, offal, paper, wire, any substance likely to injure or damage traffic using the highway, or any noisome, nauseous, or offensive matter of any kind.

(b) No person shall place, deposit, or dump, or cause to be placed, deposited, or dumped, any rocks, refuse, garbage, or dirt in or upon any highway, including any portion of the right-of-way thereof...



Roadway Position

When No Bike Lane Exists. [21202](#) “Far To Right”

(a) Any person operating a bicycle upon a roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride as close as practicable to the right-hand curb or edge of the roadway except under any of the following situations: (see exceptions below) (**Practicable** = Capable of being within the means and circumstances present, accounting for all conditions, dynamic and static).

When a Bicycle Lane Exists. [21208](#) “In Bicycle Lane”

(a) Whenever a bicycle lane has been established on a roadway pursuant to Section 21207, any person operating a bicycle upon the roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride within the bicycle lane, except that the person may move out of the lane under any of the following situations: (see exceptions below)

Exceptions to both 21202 and 21208

except under any of the following situations: “**Bikes May Use Full Lane**”

Operational Necessity

1. When overtaking and passing another bicycle or vehicle proceeding in the same direction.
2. When preparing for a left turn at an intersection or into a private road or driveway.

Safety Necessity

3. When approaching a place where a right turn is authorized.
4. When reasonably necessary to avoid conditions (including, but not limited to, fixed or moving objects, vehicles, bicycles, pedestrians, animals, surface hazards, or **substandard width lanes**) that make it unsafe to continue along the right-hand curb or edge, subject to the provisions of Section 21656.

For purposes of this section, a "substandard width lane" is a lane that is **too narrow** for a bicycle and a vehicle to travel safely side by side within the lane.

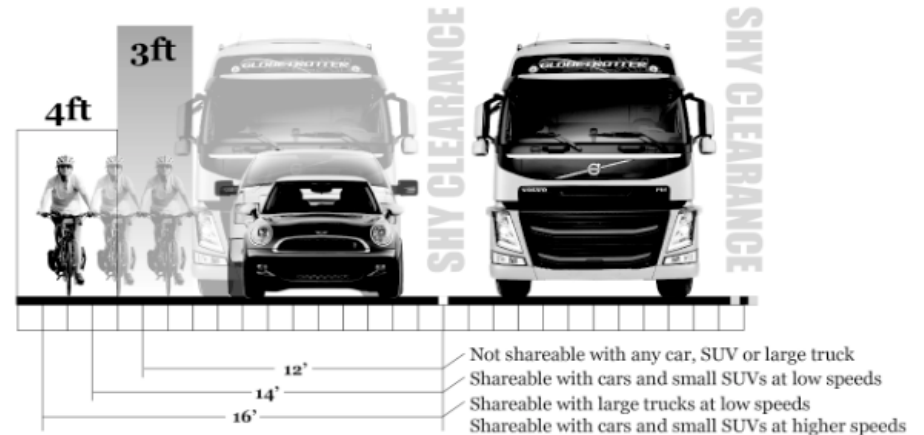
One-Way Roadways [21202](#)

4 (b) Any person operating a bicycle upon a roadway of a highway, which highway carries traffic in one direction only and has two or more marked traffic lanes, may ride as near the left hand curb or edge of that roadway as practicable.

Unsafe Conditions can include any hazard such as the potential for a parked car door to open, the potential to be a victim of a common crossing crash, the potential for a pedestrian to step into your path. Also the potential of a close passing vehicle...

"Substandard width lane" is a language mistake. It has no statutory meaning. It has been clarified by . . .

Lane Too Narrow: A bicyclist needs 4ft of operating space and now 3ft of statutory minimum passing clearance. Vehicles range in width from 6.5ft to 10ft (including mirrors). The statutory definition is "too narrow for a bicycle and a vehicle to travel safely side by side within the lane." Most travel lanes are 10-12ft wide and cannot be shared safely with any 4-wheeled vehicle. Lanes of 14-16ft can be found on some arterial roads. But these roads tend to have a higher volume of truck traffic. Many narrow lane roads now have **Sharrows** on them, well outside the door zone, directing bicyclist where to ride, and alerting motorist that **Bikes May Use Full Lane**.



Designated Bicycle Lane: Must have a bike or BIKE LANE stencil and/or bike lane sign. If not, it is a shoulder and its use is optional for bicycles but prohibited for vehicles. A standard bicycle lane is at least 4' wide from the edge, or minimum 5' from a curb face.; 8' is preferred. (**Vehicles are required to turn right from the curb, so if not occupied by a bicyclist, vehicle drivers are supposed to use the bike lane to turn right, but may not enter more than 200' from the corner. They are not allowed to turn across a bike lane, but often do, so it is prudent to use “Exception 3” if going straight.**)

Edge of Roadway is defined in the following order: edge line (white line at right edge); if there is no white line, the gutter seam; if there is no gutter, the curb face; if there is no curb, the edge of the part of pavement used for vehicular travel. The edge line separates the roadway from the shoulder--no matter how wide the shoulder, it is not part of the roadway and it does not count toward the width of the travel lane.

Driver’s Education for Cycling:



For traffic cycling information and courses, visit CyclingSavvy.org
For more information about bicycle driver rights and laws, visit iamtraffic.org

Bicycle Riding Behavior Types – It's not 'Comfort' - it's competence & confidence

It may be helpful to understand the **3 major types of bicycle owners**; the 4th drives their ATB by vehicle to dirt trails & avoids all traffic by mountain biking & the 5th has a bike in their garage or yard but never rides out of simple laziness or fear... the 6th are 'scofflaws' who cycle illegally or like loose animals...

#1 : SIDEWALK RIDERS

Sidewalks are for pedestrians; Bicyclists who ride side walks risk:

>Safety of pedestrians there; must watch out for people in the way as



they belong. Even Class I routes use side paths (wide sidewalks) and trails that are multi use & speed limits are posted at 5 to 10 MPH. Conflicts with other users & lack of CVC application allows all sorts of shared use safety concerns.

>Temptation of riding against traffic; legal on side walk (as it is off the road way where it is illegal), but deadly stupid as motorists pulling out of drive ways & turning right watch oncoming traffic on their left - never see a bicycle coming fast on their right. Also every intersection is being crossed against rules of the road or against signals that do not face the

wrong way rider. Some side walks end & that puts the bicyclist illegally riding on the street against traffic. It is worth the time to cross & use the other sidewalk that puts you riding WITH traffic.

>Hazards from obstacles like signposts, hydrants, utility boxes, light and utility poles. Poor visibility from motorists who can see traffic lanes, but may not see sidewalk traffic as well due to angles of sight & obstructions.

>Cross walk signals - when blinking red or counting down is too late; you are jay walking if you enter street - must wait (often a LONG time) for next green signal.

>Many cities have made it illegal to ride on sidewalks, many more in commercial or business districts where more pedestrians use the side walks. If you don't know each cities law you might not know (until cited) that you are breaking the local law.

Multi-use trails may be designated as Class I bike ways, but often have low speed limits, are not open after dark, and are shared with pedestrians, dog walkers, bird watchers, etc. Sidewalk riders love being on car free routes but do not always ride safely on trails. Keeping to the right, moving into single file, passing on the left, ringing a warning bell when passing, all help make trails safer.

Avoiding all of these risks slow down a bicyclist's speed of travel; you will get a lot farther in traffic when riding legally, as a road user – as if driving a vehicle. Staying on sidewalks may be appropriate (where legal) for most cautious and sensible bicyclists; but reckless riders put themselves and other side walks users at risk.

Separated Bikeways are now called Class IV bike ways; These “cycle-tracks” are a portion of a road, separated by various barriers from vehicle traffic. This sounds great to side walk riders. They are intended for cyclists, but will often be used by pedestrians crossing to parked cars, busses or just ignoring their side walk to stroll in the road. Some even have 2 way traffic and some are contra-flow, putting cyclists on the wrong direction of one way streets or on the wrong side of the street. The barriers keep most vehicles out, but cyclists are trapped & cannot merge out to pass as they can with a bike lane. Intersections require extensive engineering to not create conflicts with normal traffic and pedestrians.

#2a : EDGE RIDERS

Edge Riding is encouraged by misinterpretation of the "Far To Right" law - Bicyclists are legally *expected* to be in traffic lanes **UNLESS it is practicable to ride to the right**, sharing their lane with faster vehicles. If the lane is too narrow to safely share (safe from the bicyclist's point of view) or if there are hazards (trash, bad pavement, storm grates, parked cars, etc.) the bicyclist is expected to stay in the lane; and motorists can slow down, signal & pass the bicyclist safely. Ignorance of this fact results in motorist expecting bicyclists to keep out of their way - and bicyclists to take unnecessary risks by always riding on the edge:

>Broken glass and other debris can cause flat tires or lost control -



>The joint between the asphalt street & concrete gutter always expands & separates – or is not slurry sealed evenly making a hazard to cyclists

>Storm drains offer grates and gutter angles that provide hazards

>Shoulders are legal to ride as an option, but not required, as they typically have poor surface maintenance and put riders out of normal line of sight. Bike lanes are NOT shoulders.

>Less visible to motorists pulling out into a roadway - as motorists focus on oncoming traffic lanes and obstructions, landscaping or signs can easily hide a bicyclist approaching near the gutter.

>Riding near parked cars is called the 'door zone'. Opening a door into a bicyclist in traffic is illegal, and has killed bicyclists.

>Riding in & out of parked cars is not predictable and can surprise a passing motorist.

>Encourages filtering; the habit of passing traffic on the right, often at a fast speed & with no room for avoiding a right hook or squeeze from a motorist who may or may not use a blinker to signal turning right into a drive way before a corner.

>Encourages wrong way 'salmon' riding; If riders get comfortable riding the gutters, then riding gutters against traffic seems almost as safe, even though illegal & obviously a problem when other edge riders riding with traffic, and when coming from the wrong side when motorists pull out of drive ways or cross streets.

> Invites unsafe passing by motorists – even those who know about the 3 Feet for Safety passing law, are invited to squeeze past edge riders – some times not making it past without touching or frightening the edge rider.

#2b : BIKE LANE RIDERS

Bike Lanes are legal designated use lanes of the road that reinforce edge riding - but that causes risks:

If a Class 2 route is established, in many areas of Orange County they end before intersections and fail to show where to ride, often leaving people confused.

>Right Turn lanes:

Most Bike Lanes simply disappear before a right turn lane, leaving no clues for traffic to follow the basic rules of the road.

Some follow the gutter, putting the bicyclist going straight in conflict with the turning motorists or trapping them. Some do so turning into a narrow shoulder (like PCH @ Newport Coast & Dover)

Some continue with a narrow bike lane in between the through and the right turn lanes. Some even have a dashed bike lane & signs so motorists will safely yield to the bicyclist.

Bicyclist going straight should safely leave the bike lane (signal & look back!) before the turn lane & merge with the through lane & will find the bike lane across the intersection.

It is illegal for a car or bicycle, to go straight from a right turn lane. If the bike lane is not extended, bicyclists should move over to the through lane & get out of the right turn lane.

>No Right Turn Lane:

Many motorists break the law by not merging into a bike lane to turn right from as close to the edge / curb as possible. (Irvine confuses motorists by being the only city in OC to use BIKE ONLY instead of BIKE LANE in bike lanes.) That causes deadly 'right hooks' where motorists turn from the through lane in front of bicyclist going straight. Motorists (and bicyclists) do not know that they SHOULD use the bike lane in the last 200 feet before a corner to make a right turn. That is why the bike lane line gets dashed before most intersections (and in cities that save paint, before every drive way). Bicyclist should know that & be prepared for merging or following motorists and when safe, signal and leave the bike lane at every corner to free up the bike lane for right turning motorists. It also reduced the temptation of 'filtering' up on the right of traffic.

>Left Turns: It is dangerous and illegal to turn left across traffic from the right side of the road, but Edge & Bike Lane riders often make this move. Safely (Signal, look & merge) move across to the left & ride in traffic OR at a signal, use cross walks to make a 'boxed turn' - keeping on the right & stopping, then shifting direction and continuing on the right effecting a left turn.

When the vehicular traffic is faster than the bicyclist, and there are no hazards or parked cars or slower bicyclists or joggers in the Bike Lane, or a right turn coming up or you are not turning left you MUST ride in the Bike Lane. Otherwise, when the bike lane is hazardous, conflicted with right turns, and traffic is slow enough to join, or you need to turn left, bicyclists should leave the Bike Lane & ride in the traffic. At that time you will need to know about Bicycle Driving.



#3: ROAD USERS

Bicycle Driving: Many cyclists prefer the advantages of using the roads



with other traffic. When there is no bike lane, side path or it is not legal to ride the sidewalk, bicyclist have no choice but to share their road with motorists. Avoiding all of the hazards of Edge Riding, the added benefit of being in the lane is increased visibility to the motorist approaching from behind, giving plenty of time to slow, signal & change lanes to safely pass. More streets will be having Sharrows painted and BMUFL signs posted on them as reminders of the existing law. Sharrows are a stenciled bike and chevron painted in the middle of the right most traffic lane to show where bicyclists are safest to ride in traffic. Usually reserved for bike routes using narrow lanes that are unsafe to share, and at 35 MPH or slower. Signs that say Bikes May Use Full Lane remind road users of the existing law and are designed to reduce risky edge riding by bicyclists and arrogant lane ownership & dangerous 'Right of Speed' behaviors by motorists. The law requires road users to obey painted arrows on the road; It is illegal to go straight from a right turn only lane. It expects all road users to use a left turn only lane; safely signaling, looking back and merging across to the right-most left turn

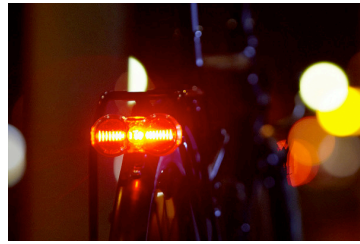
pocket; holding the lane & making the left when legal (most signals will pick up a bicycle & give you a green light if you stop behind the limit line as required by law. Being impatient & running a left turn against the red is a \$490 citation in a car or with a bike.) Staying on the right edge of the left turn lane, or on the left edge of the through lane is very risky. Being in the lane means NOT filtering up on the right, but waiting in turn behind motorists in a predictable legal way. Filtering up on the right of cars waiting to turn left only puts you at risk & slows the motorists trying to make the left; everyone gets through faster when bicycles 'drive' with vehicles.

Safely using the roads and following of the CVC - by all users, human powered or motorized, really does work. Most accidents are caused by bicyclists not following the basic rules of the road and CVC. Bicyclist must know all of the CVC rules of traffic PLUS the additional CVC rules for Bicycles and Bike Lanes. As more people purchase e-bikes or are inspired by racing to buy road bicycles, the ignorance of or failure to comply with the CVC is obvious to all traffic users. Beach communities and college campuses are often a hub for local short distance beach cruisers who ride like loose animals, oblivious to the rules or risks of riding on the street.

Road Using Bicycle Driver Education classes are a great investment in understanding traffic safety from a bicyclist's perspective. Bicycle Driving skills are taught very well by the American Bicycling Education Association's CyclingSavvy program and the League of American Bicyclists' Smart Cycling program. It is a great investment in understanding traffic safety from a cyclist's perspective. Bicyclists, e-Bicyclists and motorists who care about bicycling neighbors should take the time to take the class or do some reading & practice the skills of legal bicycle driving.

Links:
cyclingsavvy.org/
bikeleague.org/content/find-take-class

Visibility Gear: In addition to lane position, being EXTRA visible may give motorists a better chance to notice you: The CVC has requirements for your bicycle regarding safe brakes, seats, passengers, reflectors and lights. (In addition ear buds & headphones are illegal for cyclists.) These are MINIMAL.



Experienced Bicycle Drivers make choices to exceed them. If you might get caught after dark, or plan to ride after dusk, a head lamp that lights up your path is better than the required visible white light. Reflectors are required but many choose to add red rear tail lights day (flashing) and night (steady), front facing white LED flashers & extra reflectors. The DMV recommends Hi-Vis & reflective clothing at night, many choose to wear Hi-Vis clothes or vests at any time rather than 'flattering' black & fashionable dark clothes that help being seen.

Helmets: do not magically make you safer having from crashes, but if



you crash and hit your head, brain damage is often reduced and helmets have saved lives. Helmets are required for minors under 18 on Bicycles, eBikes, riding in bike carriers & trailers, Skate Boards, Electric 'hover board' Skateboards, Scooters and roller skates including 'heelines'.

(Some adults choose to not wear them, even when they could be a role model for their dependent children)

Segregated Bike Ways & Special Facilities:

Until the 'Big One' levels Southern California and we can rebuild the rubble, we will never be able to emulate a Dutch model of segregated bike ways, free of pedestrians and cars, that will serve to get to any destination. Until then - even if streets are avoided when available Class I, II



& IV bike ways are available - every bicyclist really should learn to handle Road Using Bicycle Driving skills to understand the most challenging mile of any given ride. Special bike boxes & odd Class IV protected bike ways on roadways confuse the existing rules of the road and road users already do not know how to follow them. "Same rules for everyone" makes traffic work best in this author's experience & opinion.

Electric Bicycles:

eBikes are now classified in 3 types: Type 1 eBikes have a pedal assist up to 20 mph;

Type 2 eBikes have a throttle to go without pedaling up to 20 mph;

Type 3 eBikes can reach 28 mph, requires helmets for all riders, who must be 16 or older to drive and are prohibited on all Class I bikeways in California.

Type 1 & 2 eBikes *may* be prohibited locally by local ordinances.



A Right of Speed does not exist –

Right of Way does - and the Basic Speed Law Speed limits are MAXIMUM - not MINIMUM

This applies to motorists and cyclists who like to go fast - risky behavior for self & others; Southern California is infamous for both, Sports Cars and Racing Bikes....

many bicyclists, of all types, also ride as if they have a **Right of Speed**.

Help, Questions, Advice – Contact Bill @ Bill@BikeIrvine.org
"Most of the World is either Downhill or Flat..."

