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# The challenge of bicycle traffic enforcement

Operating in traffic is a cooperative activity, governed by rules. Traffic rules incorporate practices found, through experience, to facilitate safe and efficient travel. Since not everyone has enough experience to appreciate the rationale of the rules, seasoned and informed enforcement is necessary to help instill safe habits. Officers exercise discretion in enforcement actions; an effective officer is prepared to explain the principles involved when a cyclist or motorist uses poor judgment.

#### Key traffic principles for cyclists include:

# • Cyclists on roadways fare best when they act and are treated as drivers of vehicles.

Riding as a driver makes a cyclist visible and predictable. Nationally, only about 30 percent of bicycle injuries treated in emergency rooms involve collisions with motor vehicles and fewer than one in 700 bicycle injuries is fatal. Crashes in traffic are caused by avoidable errors. In 70 percent of police-reported bicycle-motor vehicle crashes, the cyclists involved had violated traffic rules; in about 45 percent, motorists had violated the rules.

# • A cyclist is safer riding with traffic than facing it.

A cyclist who rides facing oncoming traffic increases his risk of being hit by a motorist by two to four times. Drivers entering and exiting the roadway at side streets and driveways do not expect bicycle traffic to approach from this direction.

# • Lamps must be used on a bicycle after sunset to alert other drivers.

A rear reflector may not be recognized as attached to a moving vehicle, and frontward illumination is needed to alert drivers not approaching from the rear. Nighttime collisions are much more likely to result in incapacitating injury or death. About 60 percent of fatal bicycle crashes in Florida occur during non-daylight hours. (Moderately priced bicycle lamps that run many hours on a set of AA batteries are now available.)

# • A cyclist traveling more slowly than other traffic should ride to the right, except to pass, to make a left turn, when necessary to avoid hazards, or when a lane is too narrow to share.

A cyclist should ride to the right to make it easier for faster vehicles to pass, but should follow a predictable line. Swerving left to avoid a parked car, broken pavement edge, a drain cover, pooled water, gutter debris, etc., may surprise an overtaking motorist. A cyclist who stays far right is less visible to drivers emerging from driveways and side streets and to oncoming drivers making left turns. A cyclist may leave the right-most side of the roadway when (1) moving as fast as other traffic, (2) passing another vehicle, (3) making a left turn, (4) avoiding roadside hazards, (5) where a lane is too narrow for a bicycle and another vehicle to travel safely side by side. (Moving left in such a lane helps cue an overtaking driver who might otherwise misjudge passing space.)

# WHAT TO ENFORCE

Note: this document is not intended as a cyclist's handbook. For this purpose, readers are referred to *Florida Bicycling Street Smarts*, available from Florida Bicycle Association.

In a national study\*, the following violations were identified as common contributing factors in bicyclemotor vehicle crashes.

#### Cyclist –

Riding against traffic on roadway...... 15%

Failure to yield, entering roadway midblock .... 12%

Failure to yield at stop or yield sign	10%
Cycling at night without lights5	·15%
Failure to yield, signalized or uncontrolled	
intersection	. 7%

#### Motorist -

Failure to yield at stop or yield sign 109	%
Failure to yield, entering roadway from driveway	%
Failure to yield, turning left in front   of oncoming cyclist	%
Failure to yield, signalized or uncontrolled intersection 49	%
Improper right turn in front of cyclist	%

\*W.W. Hunter, W.E. Pein, and J.C. Stutts, *Bicycle Crash Types: A 1990's Informational Guide*, Report No. FHWA-RD-96-104, Federal Highway Administration, 1997.

# UNIFORM TRAFFIC CONTROL LAW SYNOPSIS

For purposes of reducing high-crash-risk behaviors, the most important sections below are indicated with asterisks (\*). Citations are to the Florida Uniform Traffic Control Law (Chapter 316, Florida Statutes).

### Legal status of cyclist

A bicycle is defined as a vehicle [§316.003(2)] for purposes of the Uniform Traffic Control Law. A bicycle with an electric helper motor that cannot propel it faster than 20 mph on level ground is included in this definition.

A person in control of a vehicle on a street or highway is a driver [§316.003(1)]. As a driver, a cyclist must follow the traffic rules common to all drivers. As the driver of a bicycle, he must also obey rules adopted specially for bicycles.

A cyclist has all of the rights to the roadway applicable to any driver, except as to the special regulations for bicycles [§316.2065(1)]. A cyclist is not required to have a driver license [§322.01(42)].

# • A bicyclist riding on a sidewalk or crosswalk has the rights and duties of a pedestrian

[§316.2065(11)], as well as certain other duties (see "Laws for sidewalk riders," below).

• Infractions of bicycle regulations in §316.2065 and moving and non-moving violations of other sections of Chapter 316 are subject to civil penalties as provided in §318.18. (For an infraction by a child cyclist, an officer could consider issuing a verbal or written warning.)

• Points are not assigned to the driver license of a person who committed a violation while driving a bicycle. Points apply only to motor vehicle operation [§322.27(3)(i)].

• Local authorities may require bicycle registration, prohibit riding on sidewalks on roads under their jurisdiction, etc. [§316.008].

### Equipment and passengers

• Every bicycle must be equipped with a brake or brakes that allow the rider to stop within 25 feet from a speed of 10 mph on dry, level, clean pavement [§316.2065(14)].

• A bicycle may not be used to carry more persons at one time than the number for which it is designed or equipped; an adult bicyclist may carry a child in a backpack or sling, child seat or trailer designed to carry children [§316.2065(3)].

### \*LIGHTING EQUIPMENT [§316.2065(8)]

A bicycle operated between sunset and sunrise must be equipped with a lamp on the front exhibiting a white light visible from 500 feet to the front and both a red reflector and a lamp on the rear exhibiting a red light visible from 600 feet to the rear. Additional lighting is permitted and recommended. **The risk of fatal or incapacitating injury increases sharply at night.** 

### BICYCLE HELMET [§316.2065(3)(d,e)]

A bicycle rider or passenger under 16 years of age must wear a bicycle helmet that:

- is properly fitted;
- is fastened securely;
- meets a nationally recognized standard.

Under federal law, bicycle helmets are required to meet the standards of the Consumer Product Safety Commission.

Bicycle helmets, properly fitted and secured, have been found effective at reducing the incidence and severity of head, brain and upper facial injury. (Head injuries account for about one third of the hospital emergency room visits of injured cyclists.)

Use of helmets by adult role models promotes use

among youth. Agencies should consider rewarding children who comply with this section, as well as warning those who don't.

### HEADSET NOT TO BE WORN [§316.304]

A cyclist may not wear a headset, headphone or listening device, other than a hearing aid, while riding.

(Loud headphones can damage hearing and shut out the outside world. However, no cyclist should depend on hearing before turning or changing lane position.)

# Laws for all drivers (motorists & cyclists)

Impartial enforcement of traffic law on all roadway users improves the climate for bicycle enforcement.

#### \*DRIVING ON RIGHT SIDE OF ROADWAY [§316.081]

Upon all two-way roadways of sufficient width, a vehicle must be driven on the right half of the roadway. Exceptions include (a) when overtaking and passing another vehicle under the rules governing such movement *(see Overtaking and Passing a*  *Vehicle, below)* and (b) when an obstruction exists making it necessary to drive to the left of the center of the highway. However, any person so doing shall yield the right-of-way to all vehicles traveling in the proper direction within such distance as to constitute an immediate hazard.

A cyclist driving against the direction of traffic on the roadway should be warned or cited. This is a major contributing factor in bicycle-motor vehicle crashes; motorists entering and leaving the roadway at intersections and driveways do not expect traffic to approach from the wrong direction. (For riding on paved shoulders, see "Position on roadway" under "Laws for bicycle drivers" below.)

#### \*OBEDIENCE TO TRAFFIC CONTROL DEVICES [§316.074]

A driver must obey all applicable traffic control devices (signs, markings, and traffic signals).

#### \*ENTERING STOP OR YIELD INTERSECTIONS [§§316.123 & 316.130(7)]

In the U.S., the STOP sign has been the sign most commonly used to control priority at intersections and public driveways; YIELD signs may also be used for this purpose. A driver who approaches a STOP or YIELD sign must, before proceeding into the intersection, (1) stop at a marked stop line, if present, and otherwise before the crosswalk (at a STOP sign) (2) yield to a pedestrian crossing in the crosswalk (whether marked or unmarked) and (3) yield to drivers in the crossing road. The legal difference is that, at a YIELD sign, the driver is required to slow to a speed reasonable for the existing conditions but need stop only if necessary to yield or otherwise necessary for safety.

**Proper yielding prevents crashes; stopping and proceeding without yielding does not.** A study by the Insurance Institute for Highway Safety found that 70 percent of crashes that occurred at one- and two-way stop signs involved stop sign violations, but in two thirds of these cases, the driver **did** stop; the crash occurred when the driver then proceeded without yielding.

Sight distance triangles at some intersections where stop signs have been installed are sufficient that a driver who slows on such an approach can complete a scan (left and right) for potentially conflicting traffic and still have time to yield, if necessary. Nevertheless, the law requires a driver to stop at a stop sign, even when it can be seen without making a full stop that no potentially conflicting traffic is approaching. Enforcement should prioritize motorists and cyclists who fail to prepare to yield at stop or yield intersections. Enforcement of the "full stop" requirement at a stop sign should be applied evenhandedly to motorists and cyclists, or it will not be perceived as impartial.

### TRAFFIC CONTROL SIGNALS [§316.075]

Vehicular traffic must comply with indications of traffic signals.

An electrical circuit with loops embedded in the pavement is commonly used to detect vehicles waiting for a green light at a signalized intersection. These loops are essentially metal detectors. Many bicyclists are unaware of this system or do not understand how it works. The most sensitive position for a two-wheeled vehicle is (usually) directly over a pavement cut, but if the detector's sensitivity is set too low, a bicycle or motorcycle may not be detected; the signal will stay red until a car stops over the loop. An unresponsive loop should be reported to the local traffic engineering office.

## \*YIELDING ON ENTRY TO ROADWAY

[§316.125(2)]

The driver of a vehicle emerging from an alley, building, private road or driveway shall stop the vehicle immediately prior to driving onto a sidewalk crossing, and shall yield to all vehicles and pedestrians which are so close thereto as to constitute an immediate hazard. Failure to observe this rule is a typical factor in crashes involving sidewalk cyclists.

#### \*OVERTAKING AND PASSING A VEHICLE [§§316.083, 316.085]

The driver of a vehicle overtaking another vehicle proceeding in the same direction shall pass to the left thereof at a safe distance and shall not again drive to the right side of the roadway until safely clear of the overtaken vehicle. The driver of a vehicle overtaking a bicycle or other non-motorized vehicle must pass the bicycle or other non-motorized vehicle at a safe distance of not less than 3 feet between the vehicle and the bicycle or other nonmotorized vehicle. See the exception discussed below in "When overtaking on the right is permitted." To pass a cyclist with safe clearance, it may be necessary for a motorist to enter (at least partially) the next lane, when and where it is safe to do so.

No vehicle shall be driven to the left side of the center of the roadway in overtaking and passing another vehicle proceeding in the same direction unless the left side is clearly visible and free of oncoming traffic for a sufficient distance ahead to permit passing to be made without interfering with the operation of any vehicle approaching from the opposite direction. In every event an overtaking vehicle must return to an authorized lane of travel as soon as practicable and, in the event the passing movement involves the use of a lane authorized for vehicles approaching from the opposite direction, before coming within 200 feet of any approaching vehicle [§316.085].

The prohibition of passing in a no-passing zone does not apply when an obstruction exists making it necessary to drive to the left of the center of the highway [§316.0875(3)]. Thus, when a cyclist is traveling so slowly as to constitute an "obstruction," a motorist may cross the center line in a no-passing zone to pass the cyclist if the way is clear to do so, i.e., when it can be seen that any oncoming traffic is far enough ahead that the motorist could finish passing before coming within 200 feet of an oncoming vehicle.

About 1 percent of bicycle-motor vehicle crashes involve motorists who misjudge the width or length necessary to pass a cyclist. Close passing causes some cyclists to "hug the curb," or ride on the sidewalk, where crash risk actually increases.

#### \*METHOD OF TURNING RIGHT AT INTERSECTIONS [§316.151(1)(a)]

Both the approach for a right turn and the turn are to be made as closely as practicable to the righthand curb or edge of the roadway. *For this reason,*  a driver preparing to turn right should—after yielding to any bicycle driver present—enter or closely approach a bicycle lane, if one is present. This reduces conflicts with following drivers, makes the driver's intention more clear than signaling alone, and prevents an overtaking cyclist from trying to pass on the right and possibly colliding. A motorist who makes a sharp right turn immediately after passing a cyclist has turned incorrectly.

### \*NOT TO DRIVE UNDER THE INFLUENCE

• It is unlawful to operate any vehicle while under the influence of alcohol or drugs [§316.193].

• The requirement to submit to a breath test [§316.1932] does not apply to a cyclist, since consent is deemed to have been given only by a person with a driver license who is operating a motor vehicle.

• It is unlawful for any person to possess an open container of an alcoholic beverage while operating a vehicle, or while one is a passenger in or ON any vehicle [§316.1936(2)].

### DUTY TO EXERCISE DUE CARE

• Every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or bicyclist [§316.130(15)].

• Any person operating a vehicle upon the streets or highways within the state shall drive the same in a careful and prudent manner, having regard for the width, grade, curves, corners, traffic, and all other attendant circumstances, so as not to endanger the life, limb, or property of any person [§316.1925].

### APPROPRIATE DRIVING SPEED

The driver of every vehicle shall drive at an appropriately reduced speed when approaching and crossing an intersection, when approaching and going around a curve, when approaching a hill crest, when traveling upon any narrow or winding roadway, or when special hazards exist by reason of roadway conditions [§316.185]. Speed shall be controlled [§316.183] and decreased below speed limit [§316.185] as may be necessary to avoid colliding with any person or vehicle.

## Laws for bicycle drivers

### \*POSITION ON ROADWAY [§316.2065(5)]

A cyclist on a roadway who is not traveling as fast as the "normal speed of traffic" must ride in the lane marked for bicycle use or, if no lane is marked for bicycle use, as close as practicable to the right hand curb or edge of the roadway, except in the following situations:

• when passing another vehicle;

• when preparing for a left turn (see "Method of turning at intersections" above);

• when reasonably necessary to avoid conditions including, but not limited to, a fixed or moving object, parked or moving vehicle, pedestrian, animal, or surface hazard;

• when a lane is too narrow for a bicycle and another vehicle to travel safely side by side.

• A cyclist operating on a one-way street with two or more marked traffic lanes may ride as close to the left-hand edge of the roadway as practicable.



A bicycle lane is a lane marked with a stripe and symbols for the preferential use of bicycles on a roadway (motorists may enter or cross a bicycle lane to turn into or off a roadway at intersections and driveways). The official symbol marking used in Florida to designate a bicycle lane is shown in the figure (MUTCD 9C.04, FDOT Design Standards Index 17347, Florida Greenbook). A cyclist may leave a bicycle lane for any of the purposes listed in the law. Bicycle lanes are typically designed for through travel. (To make a right turn where a right turn lane is provided to the right of a bicycle lane, a cyclist should leave the bicycle lane, since continuing in the bike lane to the intersection and making a sharp right turn could surprise a motorist in the right turn lane.)

Where no bicycle lane is marked, a cyclist going straight through an intersection should not ride in a lane marked exclusively for right turns, i.e., one marked or signed with the word "ONLY" (see "Obedience to traffic control devices" above).

**Roads with curbs:** the gutter is not part of the "roadway," i.e., not "ordinarily used for vehicular travel" [§316.003(42)]. Cyclists need to keep clear of the gutter area; pavement joints, drain grates or debris can cause steering difficulties or damage. On lower-speed curbed streets, parallel parking of vehicles adjacent to the curb is commonly allowed.

#### A cyclist riding past a parallel-parked car should maintain clearance of 4 feet to avoid risk of collision with an opening driver-side door.

**Roads with flush shoulders:** where no bicycle lane is marked, a white edge line is typically marked to indicate the edge of the roadway; any pavement to the right of the edge line is shoulder pavement, not a bicycle lane unless it is marked with the bicycle lane symbol.

Since the definition of "roadway" excludes shoulders, cyclists are not required to ride on paved shoulders that are not marked as bicycle lanes, although they may prefer to do so. A cyclist who rides on a paved shoulder typically needs to maintain 2 feet of clearance from the pavement edge. The cyclist should still travel on the right because (1) this reduces crash risk at intersections and driveways (drivers don't expect traffic on shoulders to approach from the "wrong" direction) and (2) whenever the cyclist enters the roadway (e.g., to pass a pedestrian or other cyclist, cross an intersection, keep clear of a vehicle approaching to enter the roadway at a driveway, avoid debris or obstructions, etc.), right-side operation becomes mandatory.

**Outside traffic lanes:** since the minimum clearance for passing a bicyclist is 3 feet (see "Overtaking and passing" above) and the total width of larger motor vehicles (with extending mirrors) is commonly 8 feet or more, an outside traffic lane with less than 14 feet of width for travel is commonly not wide enough to accommodate passing motor traffic within the lane. Consequently, where restricted conditions prevent inclusion of bicycle lanes or paved shoulders on laned urban roadways, the Florida Department of Transportation's Manual of Uniform Minimum Standards recommends an outside lane width of 14 feet as the "minimum width that will allow passenger cars to safely pass bicyclists within a

single lane," i.e., without the need for passing motorists to use part of the next lane ("Curb Lanes," see chapter 9 at http://www.dot.state.fl.us/rddesign/Florida Greenbook/FGB.htm).

### **RIDING TWO ABREAST** [§316.2065(6)]

• Cyclists may ride two abreast only within a single lane and when not impeding traffic.

• Cyclists may not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

In a lane "too narrow for a bicycle and another vehicle to travel safely side by side" (see "Position on roadway" above), passing cyclists "at a safe distance" requires use of the next lane (see "Overtaking and passing a vehicle" above). In this case, cyclists riding two abreast cause no additional impediment to traffic.

# METHOD OF TURNING AT INTERSECTIONS [§316.151]

#### Left turn –

A cyclist intending to make a left turn is entitled to full use of the lane from which a driver may legally make a left turn. Option: instead of making a left turn as a motorist does, a cyclist may proceed through the rightmost portion of the intersection and turn as close to the curb or edge as practicable at the far side. Before proceeding in the new direction of travel, the cyclist must comply with any official traffic control device.

Right turn –

See "Method of turning right at intersections" under "Laws for all drivers" above

#### SIGNALING A TURN OR STOP

[§§316.155(2)(3) & 316.157(1)]

A signal of intention to turn must be given during the last 100 feet traveled by a vehicle before turning. If a cyclist needs both hands for control, the signal need not be given continuously.

A cyclist signals intent to:

• turn left – by extending the left arm and hand horizontally;

• turn right – by extending the right hand and arm horizontally, or by extending the left hand and arm upward;

• stop or suddenly reduce speed– by extending the left hand and arm downward.

#### WHEN OVERTAKING ON THE RIGHT IS PERMITTED [§316.084]

Overtaking on the right is permitted upon a street or highway with unobstructed pavement not occupied by parked vehicles, of sufficient width for two or more lines of moving traffic in each direction. The driver of a vehicle may overtake and pass another vehicle on the right only under conditions permitting such movement in safety.

A cyclist traveling in a bicycle lane, or in a lane wide enough for motor vehicles and bicycles to share (see "Roadway position" above) may pass motor vehicles on the right, **but must take care to avoid turning vehicles.** Passing is allowed in these cases since there is sufficient width for two lines of moving traffic (one of which is bicycle traffic).

# Laws for sidewalk riders: operating as a pedestrian

• A cyclist riding on a sidewalk or crosswalk has the rights and duties of a pedestrian [§316.2065(10)] and therefore may ride in either direction. However, equipment and passenger regulations still apply since the cyclist is still a "bicycle rider." Sidewalks are not designed for bicycle speeds, but bicycles are permitted where not prohibited by local ordinance (use is prohibited downtown in many cities).

• At a signalized intersection, a cyclist approaching on a sidewalk must obey the instructions of any applicable pedestrian control signal. *That is, he may start to cross a roadway in a crosswalk only during a steady Walk phase, if one is displayed. If no pedestrian signal is provided, the cyclist may proceed in accordance with the signal indications for the parallel roadway traffic flow [§316.084].* 

• A cyclist riding on a sidewalk or crosswalk must yield the right-of-way to pedestrians and must give audible warning before passing [§316.2065(11)].

• Vehicles may not be propelled by other than human power on sidewalks or bicycle paths [§316.1995].

## Bicycle crash investigation

Careful reporting of bicycle crashes can help traffic safety specialists choose effective countermeasures. Some bicycling-related factors are not adequately addressed in the standard crash form. Noting these in the narrative will help provide information to assess what factors did (or did not) contribute to the crash, and assure fair treatment of all parties. Some injuries to bicyclists do not involve motor vehicles but can be serious. Officers present should record the following information when relevant:

#### General

• Position of sun, time of day, glare factor.

• Surface hazards: surface debris, standing water, potholes, pipe lids, railroad tracks, pavement subsidence or cracks, etc. that might have caused the cyclist to swerve.

• View obstructions: trees, bushes, parked cars, utility poles, etc. that might have interfered with the cyclist's and motorist's views of each other.

• Site location: was the cyclist in a bike lane? On some curbed roadways, a shoulder strip is separated by an edge line but is not signed or marked as a bike lane. Legally, a bike lane is present only where a strip is designated with Bike Lane signs and/or symbol markings.

#### The cyclist

• Lamps and reflectors: If crash occurred after sunset, bicycle headlamp, taillamp and rear reflector should have been in use. Non-use should be reported as "Defective/Improper Lights" (details should be given in narrative). If lamps were damaged in crash, are the batteries charged? Was other reflective material used (panniers, ankle straps, backpack, etc.)?

• Helmet: Use should be reported in "Safety Equipment" box.

• Injured cyclist should save all clothing and equipment damaged in the crash, refrain from repairing or cleaning such items and have injuries properly examined and documented.

#### The motorist

• Did the motorist fail to scan for a cyclist approaching from the right on a sidewalk?

• If a motorist alleges he didn't see a cyclist in daylight where views were unrestricted, the possibility of drug or alcohol use, distractions or fatigue should be considered.

#### Fatalities and incapacitating injuries

• Do not move the bicycle until its location and position has been photographed or otherwise accurately recorded.

• The bicycle should be thoroughly inspected by the investigator.

• The bicycle should be held as evidence and only released when the case is closed.

## Mopeds

A moped is "[a]ny vehicle with pedals to permit propulsion by human power, having a seat or saddle for the use of the rider and designed to travel on not more than three wheels; with a motor rated not in excess of 2 brake horsepower and not capable of propelling the vehicle at a speed greater than 30 miles per hour on level ground..." [§316.003(77)].

Mopeds are classified as motor vehicles for purposes of driver license law [§322.01(26)]. A person operating a moped is therefore required to have a driver license [§322.03]. A moped must be registered [§320.0803]. Rules on roadway position are the same as for bicycles [§316.208(2)]. A moped may not be propelled on a sidewalk with its motor operating [§316.208(4)].

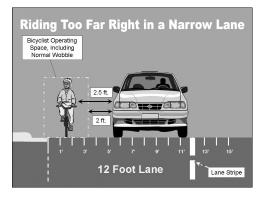
## Motorized scooters

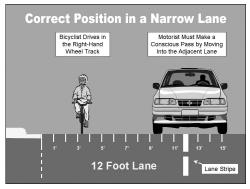
A motorized scooter is "[a]ny vehicle not having a seat or saddle for the use of the rider, designed to travel on not more than three wheels, and not capable of propelling the vehicle at a speed greater than 30 miles per hour on level ground" [§316.003(82)]. Motorized scooters are classified as motor vehicles under driver license law [§322.01(26)]. A person who operates a motorized scooter is therefore required to have a driver license [§322.03].

# When is a lane shareable?

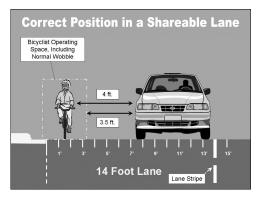
Florida's 3 feet minimum separation rule (see page 13) poses questions for both cyclists and drivers of motor vehicles. Although the law allows cyclists to leave the right-hand side of the lane if the lane is too narrow (see page 17), nothing in the statutes defines how wide such a lane should be.

FDOT's recommendation is 14 feet, which gives cyclists a maneuverable width and still allows the minimum passing feet separation. Riding too far right in a narrow lane may encourage motorists to squeeze by at an unsafe distance. In a lane too narrow (less than 14 feet) for motorists to pass safely, moving left





into the right-hand vehicle track should cause motorists to move into the adjacent lane to maintain the required separation.



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# The challenge of pedestrian traffic enforcement

Many of Florida's streets and roads were laid out when there was little expectation of future pedestrian use. New streets and highways were designed to facilitate motor vehicle travel at higher speeds and to minimize delays at controlled intersections, so that slowing or stopping to observe the legal duty to vield to pedestrians in crosswalks became an unaccustomed inconvenience. Such conditions shaped a road user culture in which pedestrian use is usually sparse outside central business districts, and drivers and pedestrians have not acquired the shared experience that informs a sense of mutual obligations. Traffic law enforcement must be based on a recognized code of behavior. The challenge of pedestrian traffic enforcement is to promote greater appreciation and observance of practices conducive to pedestrian safety and mutual courtesy.

# Key traffic principles for pedestrians and drivers include:

# • A road user's right of way must be exercised with "due care."

Traffic laws state who must yield the right of way to

whom, but do not assign an absolute right of way. Signals, crosswalk markings, lane markings and other traffic control devices do not confer an absolute right of way for any user. Right of way must be exercised in a reasonable manner with "due care" for the safety of one's self and of other road users.

# • Pedestrians may cross at most mid-block locations, but must yield outside a crosswalk.

Mid-block crossing outside a crosswalk is allowed if, in either direction, the nearest intersection is unsignalized. When crossing mid-block, a pedestrian must yield to any approaching driver, except when crossing in a marked crosswalk.

# • A driver is obliged to yield the right of way to a pedestrian lawfully crossing in a crosswalk.

Safe yielding requires stopping if the crossing pedestrian is in the driver's lane, the lane into which the driver is turning, or an adjoining lane. A condition for crossing "lawfully" is that the pedestrian began crossing when it was legal to do so. A crosswalk is legally present on each leg of an intersection except where crossing is prohibited by signs. Crosswalks are left unmarked at most unsignalized intersections.

# • If a sidewalk is provided, a pedestrian traveling along a street or road is obliged to use it if prac-

#### tical, otherwise to keep as far left as practical on the shoulder or other area available on left side of the roadway.

On a highway, a shoulder is generally graded. On a street with curbs, the leftmost graded area is simply the leftmost portion of the roadway pavement, not including the gutter.

# UNIFORM TRAFFIC CONTROL LAW SYNOPSIS

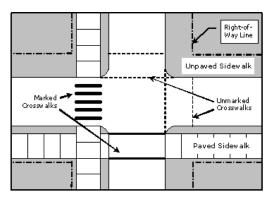
Sectional citations not otherwise identified are to the Florida Uniform Traffic Control Law (Chapter 316, Florida Statutes).

# Definitions

CROSSWALK: "(a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway, measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway," or "(b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface" [§316.003(6)].

For purposes of the driving task, crosswalks must

be assumed to be in place across both the approach and departure legs of an intersection, regardless of whether markings are present, since a driver at the critical decision distance for yielding can usually not determine whether the crossing street has sidewalks. A legal crosswalk extending the sidewalk corridor across an intersection leg is presumed to be present unless the responsible authority has closed the crosswalk and posted signs to that effect.



JAYWALKING: This commonly used term does not appear in traffic codes. It is generally understood to mean crossing a roadway in a manner that violates traffic law, especially (1) crossing mid-block between two adjacent signalized intersections and (2) entering an unsignalized crosswalk when an approaching driver is so close as to make it difficult for him to take evasive action.

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD): manual published by the Federal Highway Administration and adopted by the Florida Department of Transportation as the "manual of uniform traffic control devices which defines the uniform system [of "traffic control devices for use on the streets and highways of the state"]", pursuant to §316.0745. The MUTCD is online at http://mutcd. fhwa.dot.gov/.

PEDESTRIAN: "Any person afoot" [§316.003(28)]. By custom, this is understood to include "a person afoot, in a wheelchair, on skates, or on a skateboard" (meaning of "pedestrian" as used in the MUTCD, Section 1A.13) as well as a person on a foot-powered scooter (nothing in Florida Statutes indicates otherwise). A person operating a bicycle on and along a sidewalk or crosswalk has the rights and duties applicable to a pedestrian under the same circumstances, but must yield to pedestrians and give an audible warning before passing one and remains subject to bicycle equipment requirements (§316.2065). A person may operate an electric personal assistive mobility device (Segway®) on a sidewalk subject to the duty to yield to pedestrians and to give an audible warning before passing; no other duties are explicitly assigned to EPAMD operators, except the requirement for an operator under the age of 16 to wear a bicycle helmet [§316.2068].

ROADWAY: "That portion of a highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or shoulder. In the event a highway includes two or more separate roadways, the term 'roadway' as used herein refers to any such roadway separately, but not to all such roadways collectively" [§316.003(42)].

SHOULDER: not defined in Florida Statutes, but generally understood to be the (graded) portion of a highway contiguous with the traveled way that accommodates stopped vehicles, emergency use, and lateral support of base and surface pavement courses (American Association of State Highway and Transportation Officials). Shoulders may be partially or entirely unpaved.

SIDEWALK: "That portion of a street between the curbline, or the lateral line, of a roadway and the adjacent property lines, intended for use by pedes-

trians" [§316.003(47)]. The public right-of-way reservation typically includes width for sidewalks and utilities. Unpaved sidewalks (beaten paths or other firm surfaces) may be practical for some pedestrian use, but generally do not meet technical provisions for "accessible trails" or "accessible [pedestrian] routes" as defined in federal accessibility standards and guidelines.

### Laws for pedestrians and drivers PEDESTRIAN TRAVEL ALONG A STREET OR HIGHWAY

Where sidewalks are provided, no pedestrian shall, unless required by other circumstances, walk along and upon the portion of a roadway paved for vehicular traffic [§316.130(3)]. Where sidewalks are not provided, a pedestrian walking along and upon a highway shall, when practicable, walk only on the shoulder on the left side of the roadway in relation to the pedestrian's direction of travel, facing traffic which may approach from the opposite direction [§316.130(4)].

Encroaching vegetation, cracks and upheaval caused by tree roots, illegally parked vehicles and "other circumstances" can make even paved sidewalks impractical to use at points and highly problematic for those with mobility impairments. Where sidewalk areas have been left unpaved, natural vegetation or landscaping, wet or muddy conditions, nearby ditches, and hazards hidden in grass or under plant litter (wasp nests, sharp objects, tripping hazards, etc.) can similarly make use impractical.

Where such circumstances occur on a road without curbs, pedestrians traveling along the road should use the left shoulder, the graded area adjacent to the traveled way on the left side. Where such circumstances occur on a street with curbs, there is no shoulder per se, but the customary rule for pedestrians to travel on the left side of the roadway. so as to face any traffic approaching in the adjacent lane, is still applicable when practicable. A driver and a pedestrian who face each other are generally more aware of each other and crash risk is therefore reduced for pedestrians who travel on the left. (Note: because of their much greater speeds and other differences in operating characteristics, cyclists do not enhance their safety by following this rule. On the contrary, it increases a cyclist's crash risk. Roadway cvclists are required to travel on the right.)

Pedestrian travel on the left side may be impracticable or be disadvantageous if it requires making otherwise unnecessary crossings of a multi-lane

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highway, especially one with high traffic speeds or volumes.

### NO STANDING IN THE ROADWAY [§316.130(5)]

No person shall stand in the portion of a roadway paved for vehicular traffic for the purpose of soliciting a ride, employment, or business from the occupant of any vehicle.

### STOPPING, STANDING, PARKING OR DRIVING ON SIDEWALK

• No person shall drive a vehicle except by human power on a sidewalk or sidewalk area, except on a driveway [§316.1995] An exception is made for electric personal assistive mobility devices (Segway® Personal Transporters), if the person operating an EPAMD yields the right-of-way to pedestrians and gives an audible signal before overtaking and passing a pedestrian [§316.2068]. By custom, a batterypowered motorized wheelchair used by a person with a disability may also go on a sidewalk.

• No person shall stop, stand or park a vehicle on a sidewalk [§316.1945(1)]. Although the pavement surface may change at a driveway, the legal sidewalk extends across the driveway. Blocked sidewalks force pedestrians to enter the roadway.

### DRIVER DUTY TO PEDESTRIAN AT VEHICULAR ROADWAY CONNECTIONS [§316.125]

The driver of a vehicle emerging from an alley, building, private road or driveway within a business or residence district shall stop the vehicle immediately prior to driving onto a sidewalk or any sidewalk area extending across the alley, building entrance, road or driveway and to yield to all vehicles and pedestrians so close as to constitute an immediate hazard.

For a driver exiting a roadway at such a location, no duty to yield to pedestrians on a sidewalk area is specifically stated. However, the driver must "exercise due care to avoid colliding with any pedestrian" (see below).

### DRIVER DUTY TO EXERCISE CARE TO AVOID PEDESTRIAN [§316.130(15)]

Notwithstanding other provisions, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human-powered vehicle.

# CROSSING A ROADWAY MIDBLOCK, NOT IN A CROSSWALK

• A pedestrian crossing a roadway at any point other than a (marked or unmarked) intersection

crosswalk or a marked mid-block crosswalk shall yield to all vehicles on the roadway [§316.130(10)].

• A pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway [§316.130(7)]. Since, at mid-block locations, this duty is already implied by the provision above, the only effect of this provision is at (rare) intersection crossings where a pedestrian tunnel or overpass has been provided.

• A pedestrian may not cross between adjacent signalized intersections [§316.130(11)]. Adjacent signalized intersections are generally found in larger central business districts, less commonly in suburban areas. At suburban locations with adjacent signalized intersections, the distance to detour to the nearest signalized crosswalk is often perceived as impractical by pedestrians.

• Except in a marked crosswalk, a crossing pedestrian must cross at right angles to the edge of the roadway, or by the shortest route to the opposite side [§316.130(12)].

**CROSSING A ROADWAY IN AN UNSIGNALIZED CROSSWALK** (marked or unmarked crosswalk at intersection, or crosswalk marked mid-block)

• The driver of a vehicle at any crosswalk where signage so indicates shall stop and remain stopped

to allow a pedestrian to cross a roadway when the pedestrian is in the crosswalk or steps into the crosswalk and is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger [§316.130(7)].

The sign that "so indicates" should be a traffic sign authorized under the MUTCD. It could be, for example, an In-Street Pedestrian Crossing sign with the legend STOP FOR [PEDESTRIAN symbol)] WITHIN CROSSWALK.

• Where a traffic signal is not in place or in operation and no sign indicates otherwise, the driver of a vehicle shall yield, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a (marked or unmarked) crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger [§316.130(7)].

• No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield [§316.130(8)].

A pedestrian who sets foot in a (marked or unmarked) crosswalk where traffic signals are not in place, or are in place but not operating, obliges an approaching driver to yield, so long as it is feasible for the driver to do so. The driver's duty to yield applies regardless of whether the crossing location is controlled by any signs (Stop or Yield). Yielding may take the form of slowing or stopping; safe yielding requires stopping (and waiting) if the crossing pedestrian is in the driver's lane, in the lane into which the driver is turning, or in an adjoining lane.

• When a vehicle is stopped at a crosswalk to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle [§316.130(9)].

This is a critical provision for pedestrian safety. When one driver stops to let a pedestrian cross, the stopped vehicle may screen the pedestrian from the view of an approaching driver-and also screen the approaching vehicle from the pedestrian's view. The law therefore requires a driver approaching a vehicle stopped at a crosswalk from the rear to assume that a pedestrian may be crossing, even when none can be seen at the moment. A violation of this rule can cause serious injury because the overtaking driver is traveling at speed. (To reduce this risk, seasoned pedestrians pause at the outside edge of any "screen.") • A pedestrian may not cross an intersection diagonally except where and when crossing is authorized by official traffic control devices [§316.130(14)].

**Note on roundabouts:** A roundabout functions as a loop of yield-controlled T-intersections. Roundabout entries are often designed with the crosswalk marked about one car length before the yield line. A driver may pull up directly to the yield line if no pedestrian is in the crosswalk. The car length spacing leaves the crosswalk unblocked when the presence of circulating traffic in the roundabout obliges the driver to wait for a suitable opening. The same spacing also accommodates an exiting driver (without causing a blockage of the roundabout), when the presence of a pedestrian in the crosswalk requires him to yield.

### CROSSING A ROADWAY IN A SIGNALIZED CROSSWALK [§316.075]

Respective rights of way and duties of pedestrians and drivers at signalized locations depend on the signal indications that are illuminated.

### Red indication-

• **pedestrians:** Unless otherwise directed by a pedestrian control signal, pedestrians facing a steady red signal shall not enter the roadway.

• **drivers:** Vehicular traffic must stop before the crosswalk, stop bar, or if none marked, the intersection. However, when a pedestrian is in the crosswalk or steps into the crosswalk and is (a) upon the half of the roadway upon which the vehicle is traveling or (b) is approaching so closely from the opposite half of the roadway as to be in danger, the driver shall stop before entering the crosswalk, and shall remain stopped to allow the pedestrian to cross the roadway on an indication that so permits

Otherwise, having stopped, a driver may make a right turn, except where prohibited by sign, but must yield to pedestrians and other traffic proceeding in accordance with signals (such pedestrians might be crossing in the parallel crosswalk that the driver must turn across). A driver making a left turn from a one-way street onto a one-way street after stopping on red (where not prohibited by sign) must also yield to pedestrians and other traffic proceeding in accordance with signals.

### Green indication-

• **pedestrians:** A pedestrian facing a green signal, except when the sole green signal is an arrow signal, may proceed across roadway in any marked or unmarked crosswalk (i.e., in the direction controlled by the signal face), unless directed otherwise by a pedestrian control signal.

• **drivers:** Vehicular traffic facing a *circular* green signal may proceed cautiously straight through or turn right or left unless a sign at such place prohibits either such turn, but shall yield the right-of-way to pedestrians lawfully within the intersection or an adjacent crosswalk.

Vehicular traffic facing a green *arrow* signal may cautiously enter the intersection to make the movement indicated by such arrow, but must yield to pedestrians lawfully within an adjacent crosswalk.

A pedestrian is considered to be lawfully within a crosswalk if he started crossing in it when it was legal to do so, and is finishing crossing without undue delay. Under the provisions of this section and current MUTCD standards, a driver facing a green arrow signal displayed by a properly operating signal should not encounter a pedestrian in a parallel crosswalk. A driver facing either type of green indication may need to wait for a pedestrian to finish crossing in the crosswalk immediately before him.

### Steady yellow indication-

• pedestrians: A pedestrian facing a steady yellow signal may not start to cross. A pedestrian facing a steady yellow signal (i.e., from a corner) will generally not have sufficient time to cross before a red indication is displayed. The yellow indication does not apply to a pedestrian who started crossing (in the direction controlled by the signal face) before it was illuminated.

• **drivers:** For a driver already (still waiting) in the intersection to make a permitted left turn, the duty to yield to lawfully crossing pedestrians (described for the green indication) still applies.

### Pedestrian control signals-

For pedestrians the directions of a pedestrian control signal supersede those of the associated traffic signal. Such signals may also be placed at midblock locations. The meanings of the symbolic signal indications (some older pedestrian signal heads still use word messages) are assumed to be self-evident and are not described in law, but are described in the MUTCD (Section 4E.02). Still, many pedestrians and motorists do not understand the meaning of the flashing UPRAISED HAND indication.

• steady WALKING PERSON (symbolizing WALK) indication: pedestrian facing the signal indication is permitted to start to cross the roadway in the direction of the signal indication. Pedestrian shall yield the right-of-way to vehicles lawfully within the intersection at the time that the WALKING PERSON signal indication is first shown. • flashing UPRAISED HAND (symbolizing DONT WALK) indication: pedestrian shall not start to cross the roadway in the direction of the signal indication, but any pedestrian who has already started to cross on a steady WALKING PERSON signal indication shall proceed out of the traveled way.

• steady UPRAISED HAND (symbolizing DONT WALK) indication: pedestrian shall not enter the roadway in the direction of the signal indication.

Pedestrian signal indications apply to pedestrians, not drivers. Vehicular traffic is controlled by traffic signal indications as described above.

At some locations a slower walker (who entered the crosswalk during the WALKING PERSON indication) may not have reached the far side of the roadway when the steady UPRAISED HAND indication is first displayed. However, some crossing time still remains. Per the MUTCD (Section 4E.10), the pedestrian clearance time is comprised of three intervals: the pedestrian change interval (the interval during which a flashing UPRAISED HAND indication is displayed), the yellow change interval (when the steady UPRAISED HAND is displayed and the traffic signal for the parallel vehicular movement displays a yellow indication), and any red clearance ("all red") interval. The recommended duration of the pedestrian clearance time is sufficient to allow a pedestrian crossing in the crosswalk who left the curb or shoulder during the WALKING PERSON indication to travel at a walking speed of 1.2 m (4 ft) per second, to at least the far side of the traveled way or to a median of sufficient width for pedestrians to wait.

Many pedestrian signal heads now incorporate countdown pedestrian signals. These signals count the seconds remaining in the pedestrian change interval (flashing UPRAISED HAND displayed). At the end of this interval, the countdown signal briefly displays a zero and the steady UPRAISED HAND indication is displayed. As explained above, some time still remains in the pedestrian clearance time.

### CROSSINGS BY VISUALLY OR MOBILITY IMPAIRED PEDESTRIANS

• When a pedestrian is trying to cross a public street or highway, guided by a dog guide or carrying in a raised or extended position a white cane or walking stick, an approaching driver is obliged to bring his vehicle to a full stop before arriving at such intersection or place of crossing and, before proceeding, shall take such precautions as may be necessary to avoid injuring such pedestrian [§316.1301]. • Only a blind person may carry a white cane or walking stick in a raised or extended position on a public street or highway [§316.1301].

• If a mobility-impaired person (using a guide dog or service animal, a walker, a crutch, an orthopedic cane, or a wheelchair), is in the process of crossing a roadway at an intersection, drivers approaching the intersection must stop before arriving at the intersection and take reasonable precautions to avoid injuring such a pedestrian [§316.1303].

### PRIORITIES FOR ENFORCEMENT & AWARENESS

In a national study,\* the following conditions were identified as common contributing factors in pedes-trian-motor vehicle crashes.

Primary error by pedestrian-

Failure to yield, crossing mid-block ..... 16.1%

Failure to yield, crossing at intersection . . 8.9%

Travel along roadway – wrong direction . . 5.2%

Primary error by driver-

Failure to yield at intersection	
crosswalk	14.4%
(8.6% while turning; 5.8 % while going stra	aight)

Backing veh	icle (failed to detect	
pedestrian		6.9%

\*W.W. Hunter, W.E. Pein, J.C. Stutts, Pein, and C.L. Cox, Pedestrian and Bicycle Crash Types of the Early 1990s, Report No. FHWA-RD-95-163, Federal Highway Administration, 1996.

Relative frequencies of pedestrian crash types vary to some extent with development character (urban, rural), prevailing speeds, light condition, number of lanes, presence or absence of sidewalks, etc.

## Enforcing pedestrian duties to yield (where & when required)

Enforcement of pedestrian duty to yield at mid-block locations without crosswalks requires observing a driver taking evasive action (braking or changing lanes) to avoid the pedestrian.

When enforcing pedestrian duties at or near signalized intersections, officers should concentrate on pedestrians who commit blatant violations—especially ones whose example inspires a larger group of pedestrians to follow, or who cause drivers to brake or swerve—and pedestrians who seem impaired or inattentive to conditions (especially under dark conditions, when such individuals are at high risk).

# Enforcing motorist duties to yield (where & when required)

Drivers' failure to yield is frequently given by pedestrians as a reason for not using crosswalks. The movement of a queue of drivers turning right on green, for example, can induce a pack mentality that leaves less assertive or agile pedestrians insufficient time to cross. Since locations away from intersections and major driveways usually have few or no turning vehicles to attend to, pedestrians often find crossings at such locations simpler to execute, especially where frequent gaps in traffic do not require long waits (while one yields to drivers), or where a median refuge allows a crossing to be made in two stages. However, intersection crosswalks provide the most direct and practical paths for many pedestrian purposes.

### Warning pedestrians using wrong shoulder

Pedestrians observed walking (or running) along roadways with their backs to traffic should generally be warned. Many pedestrians are not aware of the safety advantage of walking along the left side, so as to face approaching drivers, in places where sidewalks are not provided. Judgment should be used; crossing a roadway so as to walk facing traffic may be risky or impractical under some conditions.

### Awareness of and by backing drivers

Pedestrians hit by backing drivers who failed to detect their presence were most commonly struck in parking lots. Others were stepping into streets behind parked cars, or walking past driveways and alleys. Small children are especially vulnerable in driveways. The FHWA study cited above found that 9% of pedestrian-motor vehicle collisions occurred in parking lots. Pedestrians in parking lots should be attentive to any signs of a backing vehicle and walk in front of cars when possible. Backing drivers should look over both shoulders and continue looking while backing.

## FLORIDA BICYCLE LAW ENFORCEMENT GUIDE

A review of Florida's bicycle traffic laws to help with warnings, citations and crash reports August 2010

All citations are to the 2010 Florida Statutes



Bicycles are Vehicles

## FLORIDA PEDESTRIAN LAW ENFORCEMENT GUIDE

A review of Florida's pedestrian traffic laws to help with warnings, citations and crash reports August 2010

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