



DDOT/MPD Pedestrian-Bicycle Safety Enforcement Training

April, 2007

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DDOT-TPPA

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MPD



This is fiction...



This is real.



DC Pedestrian Crash Data (2000-2006)

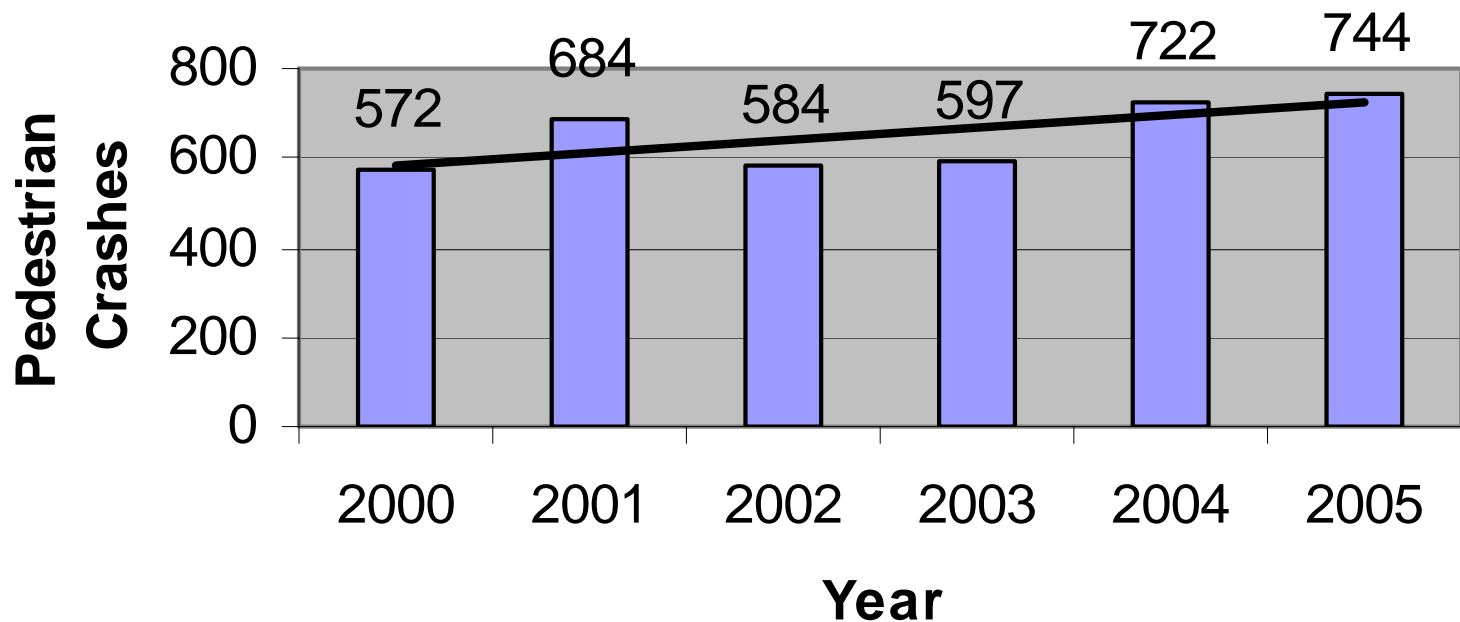


- 15 fatalities/6-year average (17 in 2006)
- 10 pedestrian fatalities to date in 2007
- 40% of total traffic fatalities (2006)
- Pedestrian fatalities by city, 2005:

City	Total Traffic Fatalities	Ped Fatalities	Peds as Percent of Total	Ped Fatality Rate per 100,000 Pop
Washington, DC	48	16	33.3	2.9
Safer Cites for Pedestrians				
New York, NY	323	152	47.1	1.9
Boston, MA	19	7	36.8	1.3
San Francisco, CA	33	16	48.5	2.2
Less Safe Cities for Pedestrians				
Phoenix, AZ	184	64	34.2	3.2
Jacksonville, FL	149	34	22.8	4.3
Miami, FL	66	22	33.3	5.7

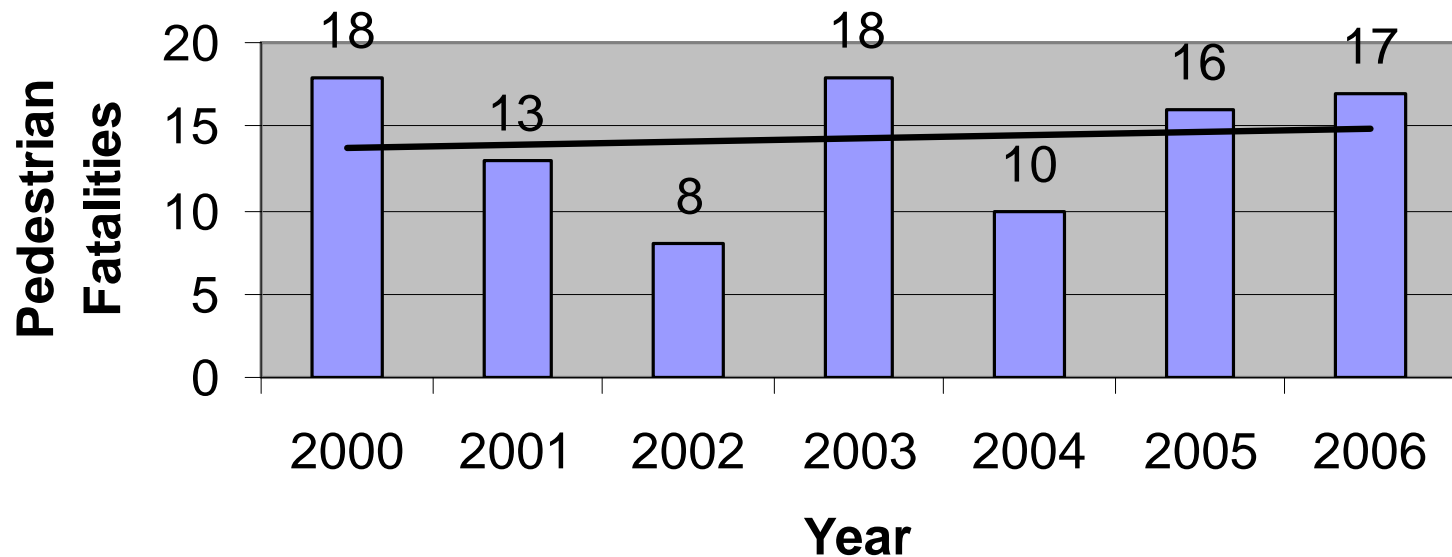
DC Pedestrian Injuries

DC Pedestrian Crashes 2000-2005



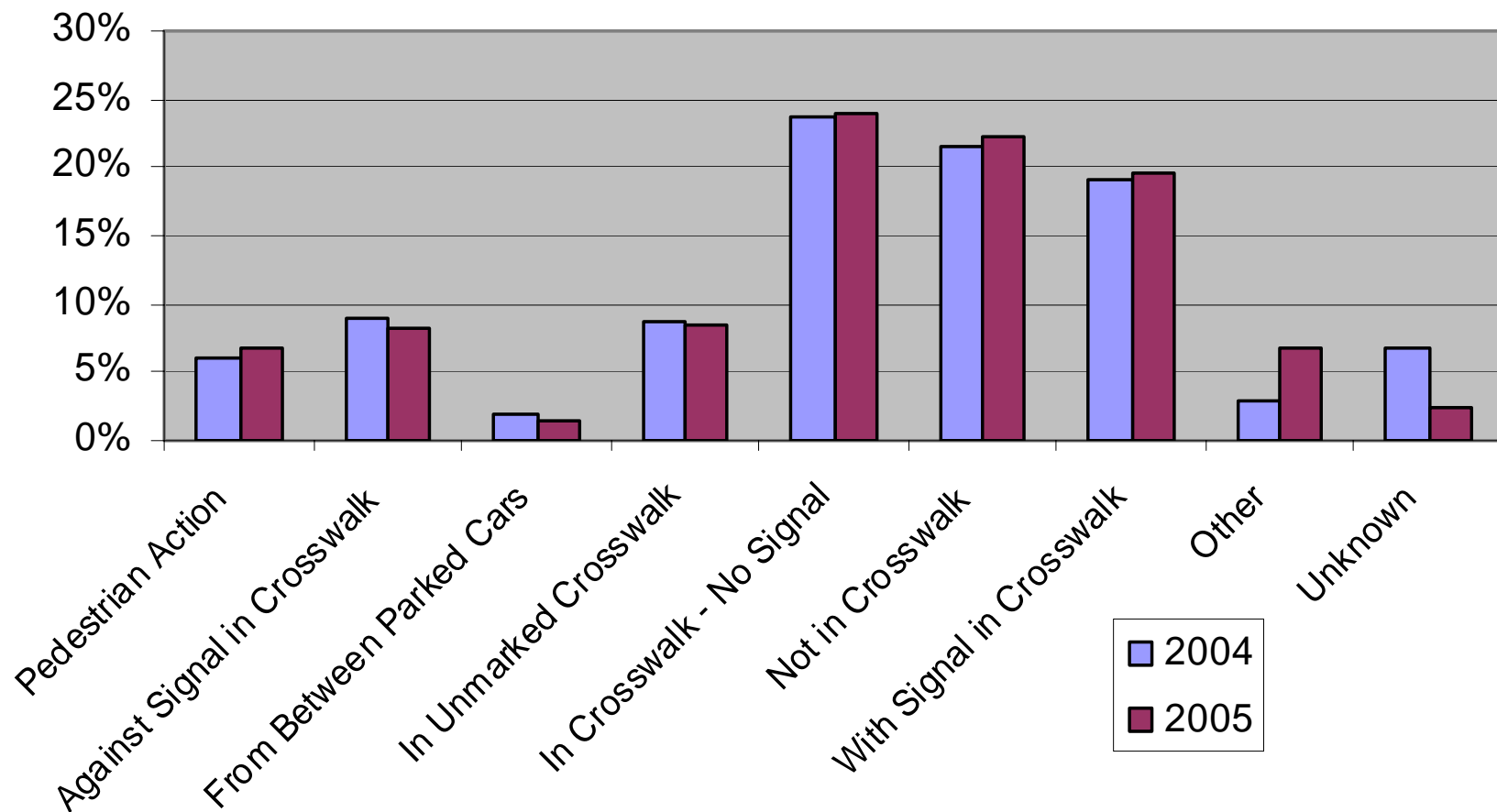
DC Pedestrian Fatalities

**DC Pedestrian Fatalities
2000-2006**



Pedestrian Action prior to Crash

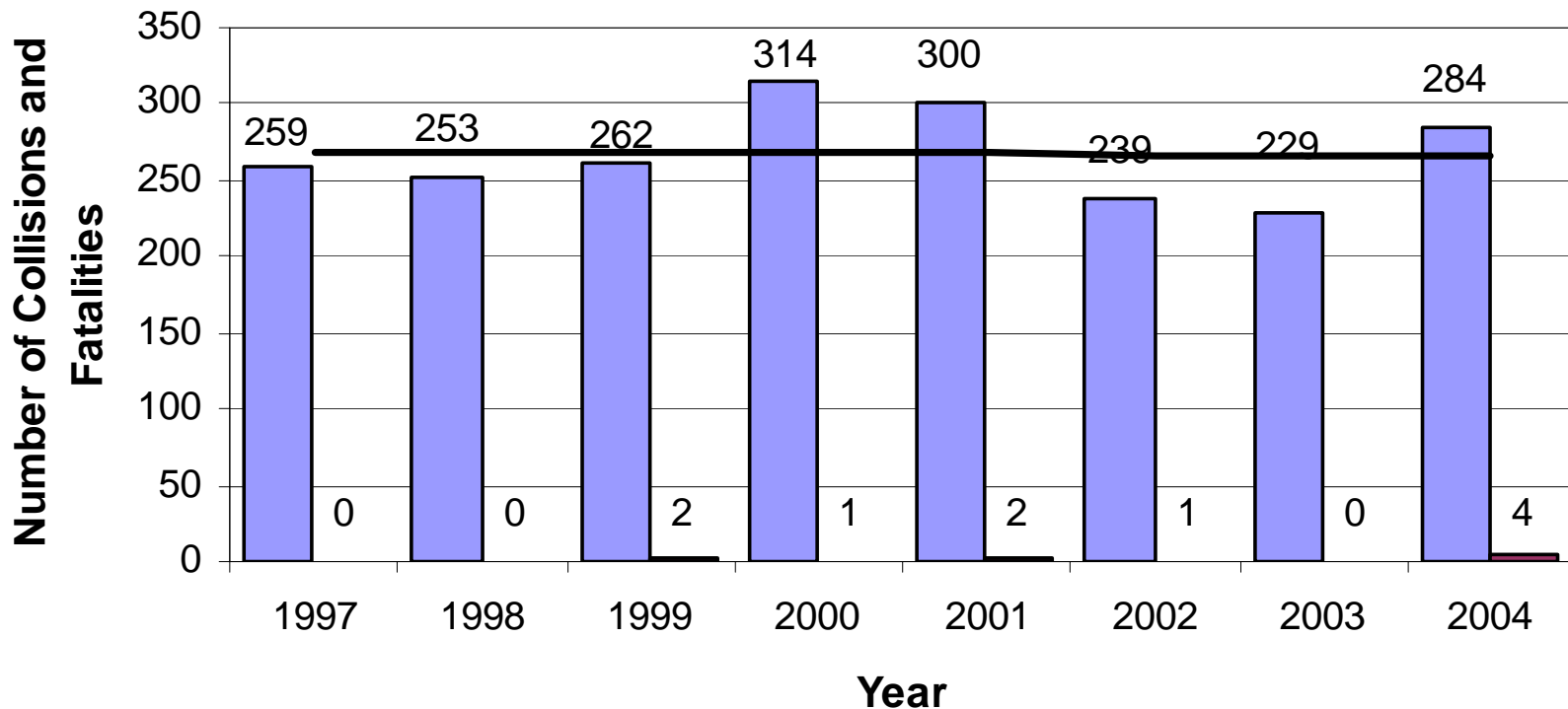
Crashes Involving Pedestrians 2004-2005
Pedestrian Action



DC Bicycle Crash Data (1997-2004)



Bicycle Collisions: 1997-2004



Number of Collisions Fatalities Linear (Number of Collisions)

**It's all
about your
Perspective:**

- If you see the city through a windshield, you see pedestrian and cyclist violations.









- Sometime pedestrians get a “herd mentality”



- Some pedestrians act like Sacred Cows

- If you see the city on foot or bike, you see motorist violations.





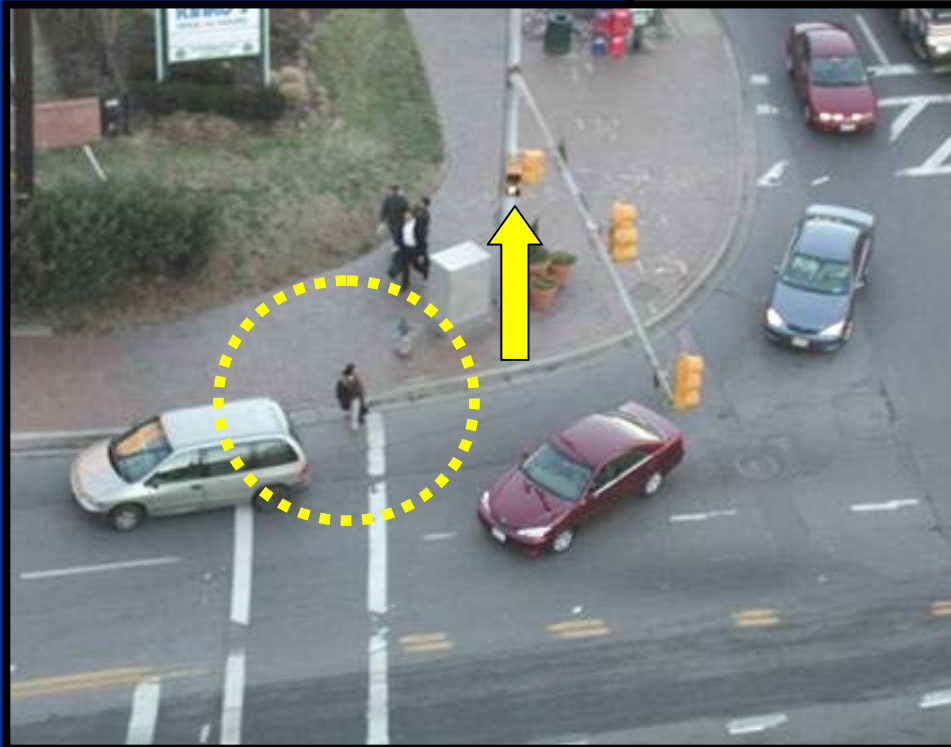
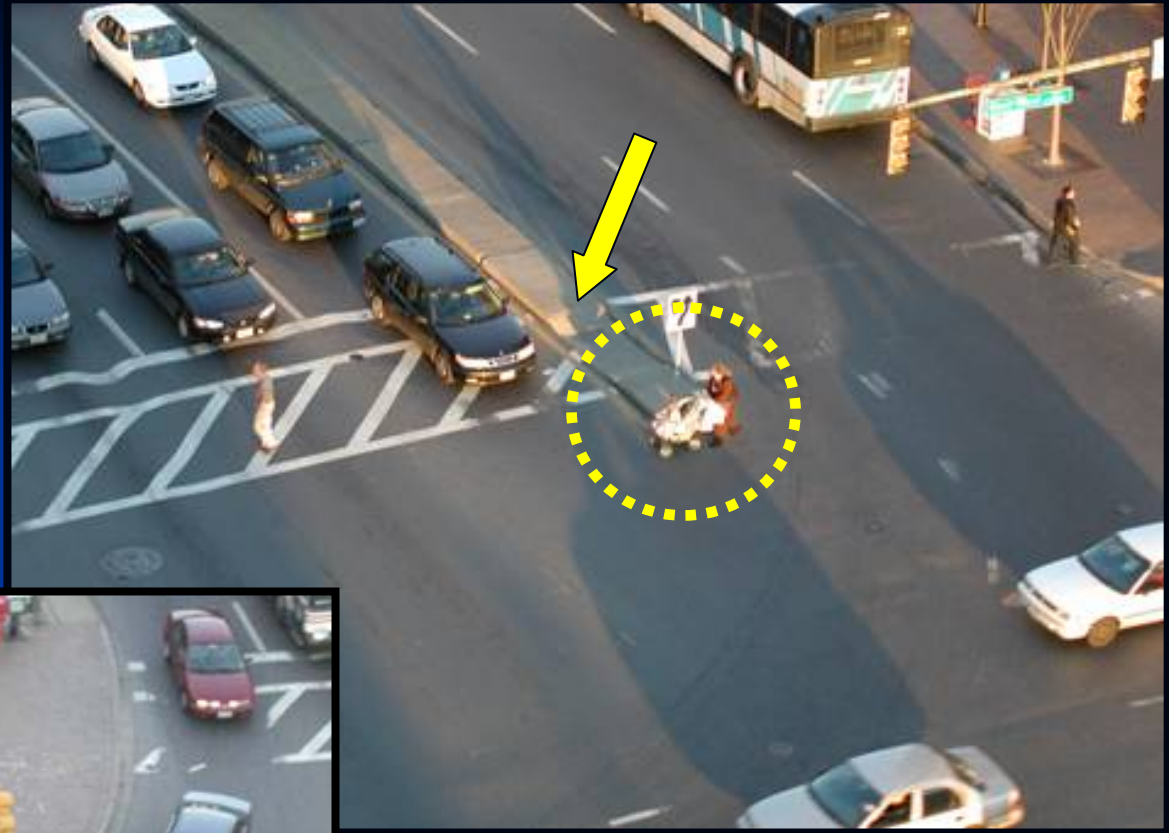
■ Right on green violation puts elderly at risk

We want to avoid this!



■ Translation: "Use the Crosswalks"

■ Blocking crosswalk and median cut.



■ Follow the leader failure to yield to peds.



■ This woman was trapped for 5 minutes!



■ Safe coexistence is possible

Effective Enforcement Techniques:

Overview:

- Drivers, cyclists, and pedestrians all have duties and responsibilities.
- The police are like referees at a basketball game:
 - Lax enforcement (what we have now) leads to chaos.
 - Strict enforcement of every detail of every rule is unworkable and will lead to backlash, confusion, and ultimately failure.
- Establish “**fair game**” rules for each user group.
 - The priority is to protect vulnerable pedestrians without unreasonably restricting the mobility any user group.



Targeting Pedestrians:

- It's more than jaywalking!
- The Seattle Police Department vigorously enforced the anti-jaywalking laws for 50 years, issuing more than 500,000 citations. Seattle's pedestrian crash experience was little different from the rest of the USA where little or no attention was paid to this problem.
- Jaywalking enforcement is often episodic and inconsistent but is usually seen as a waste of police manpower.
- Police officers should ask themselves "why do I expect pedestrians to go to a crosswalk? Do drivers behave differently there?" If the crosswalk is made more attractive, pedestrians might find value in going to them.

FREEZE, SCUZZBALL!
NOBODY JAYWALKS
IN THIS TOWN!

© 1974 GATLETTING ERIN BASSETT



Effective Use of Enforcement?

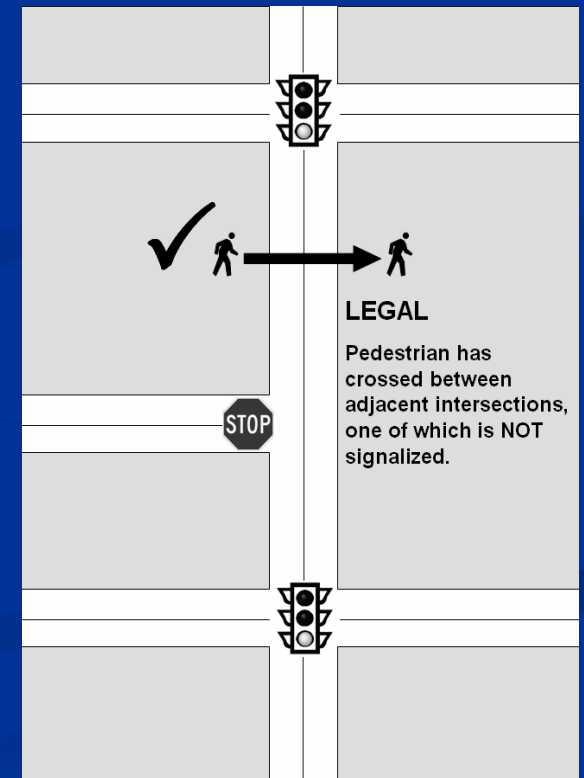
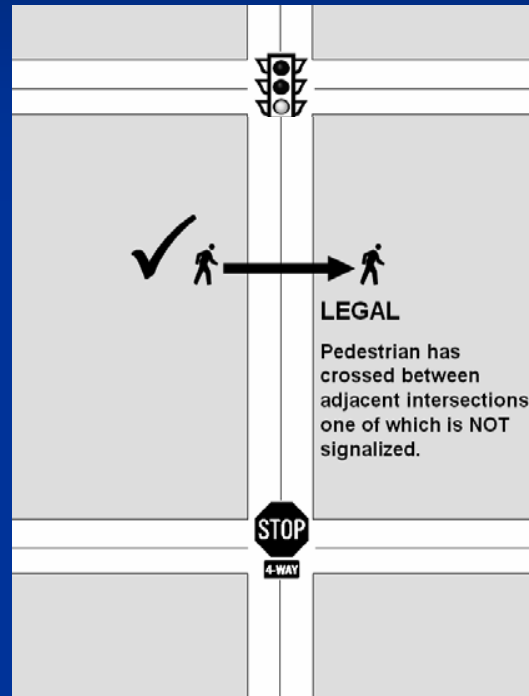
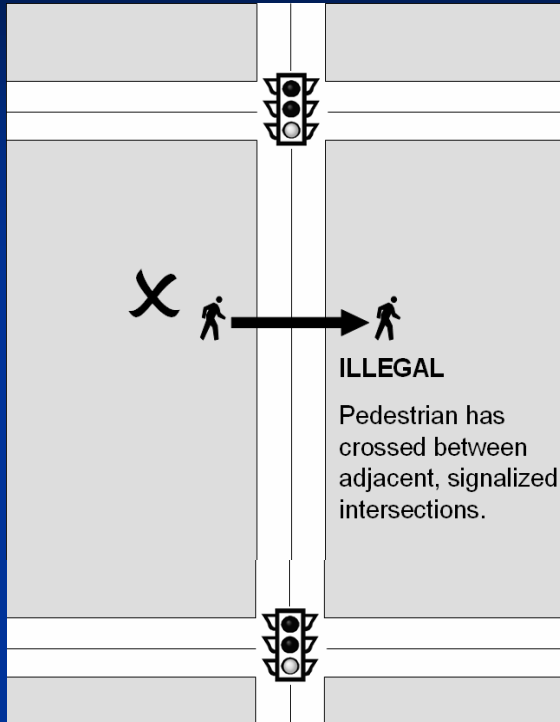


Jaywalking Enforcement, Seattle, 2003.

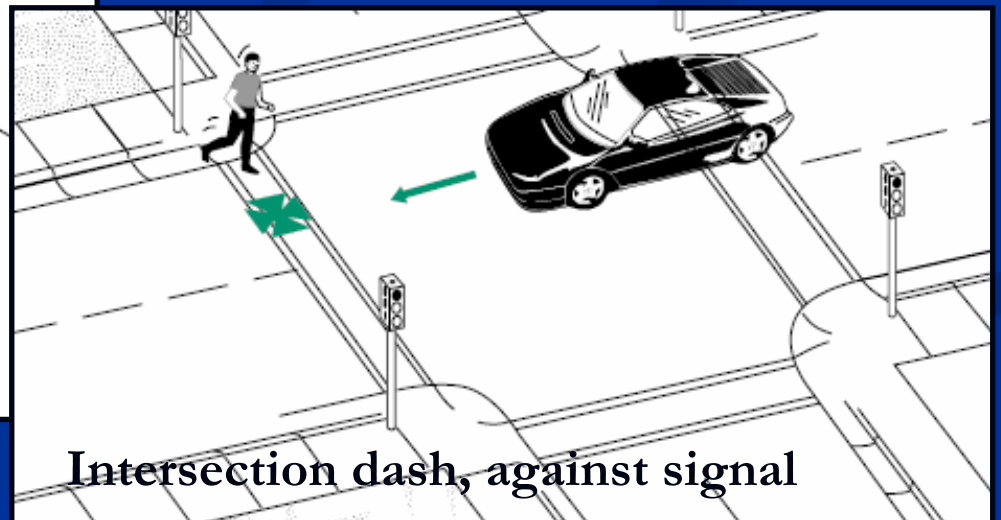
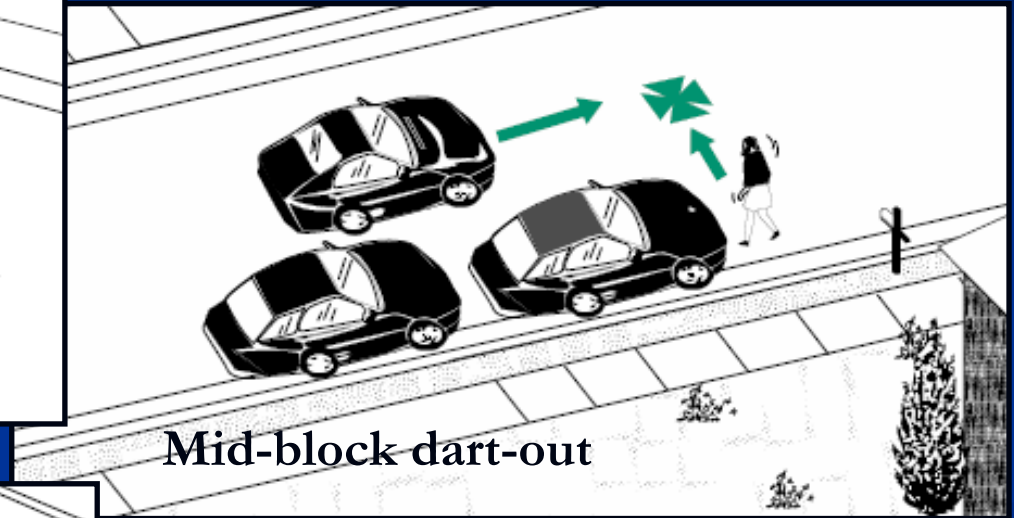
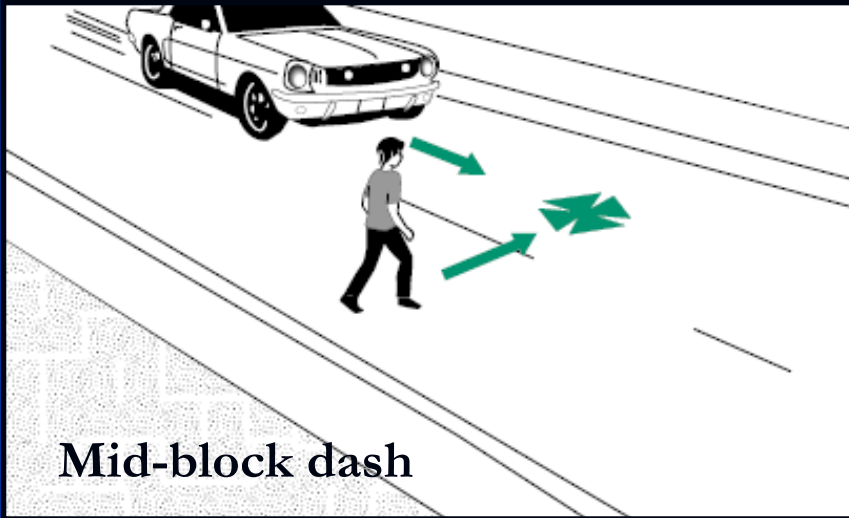
Target Pedestrian Laws:

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>	<u>Fine</u>
2303.2	Walking suddenly into the path of a vehicle	No pedestrian shall suddenly leave a curb, safety platform, safety zone, or other designated place of safety and walk or turn into the path of a vehicle which is so close that it is impossible for the driver to yield.	\$20
2302.3	Walking against the "Don't walk" signal	No pedestrians shall start to cross the roadway in the direction of a "Don't Walk" signal.	\$20
2304.2 Write as "Walking to create a hazard"	Permitted crossings between intersections	Each pedestrian crossing a roadway at any point other than within a crosswalk shall yield the right-of-way to all vehicles upon the roadway.	\$20
2304.1 Write as "Walking to create a hazard"	Crossing between adjacent signalized intersections ("jaywalking")	Between adjacent intersections controlled by traffic control signal devices or by police officers, pedestrians shall not cross the roadway at any place except in a crosswalk.	\$20
		Walking to create a hazard? Not in DCMR	

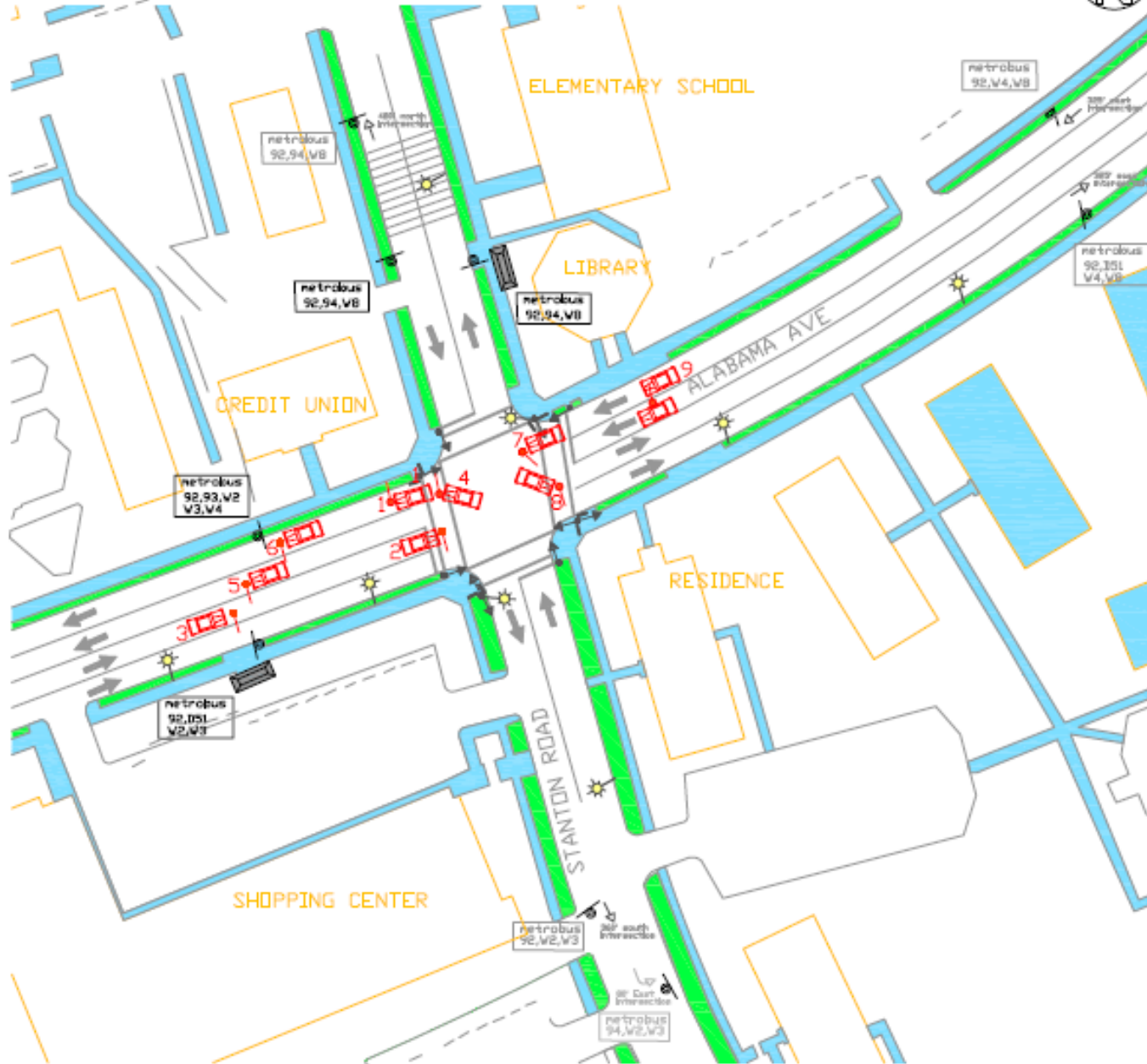
The Law and Mid-block Crossing



Frequent Ped At-Fault Crash Types:



Alabama Ave. & Stanton Rd., SE

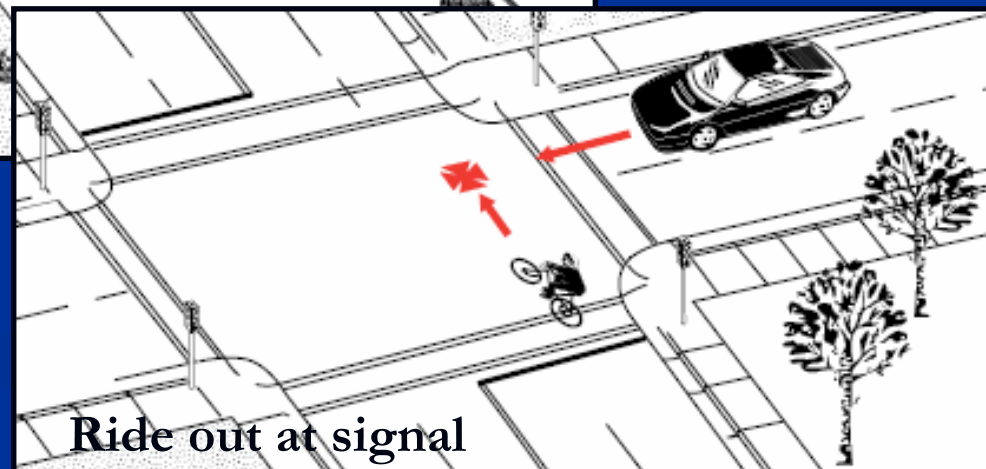
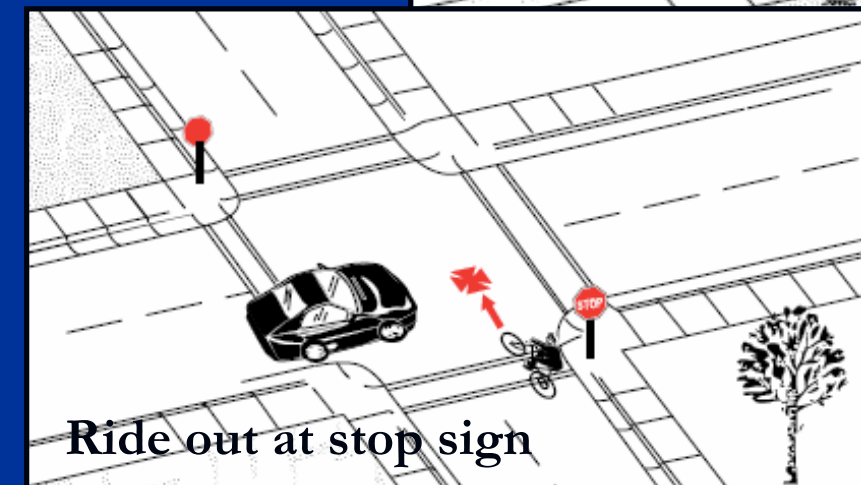
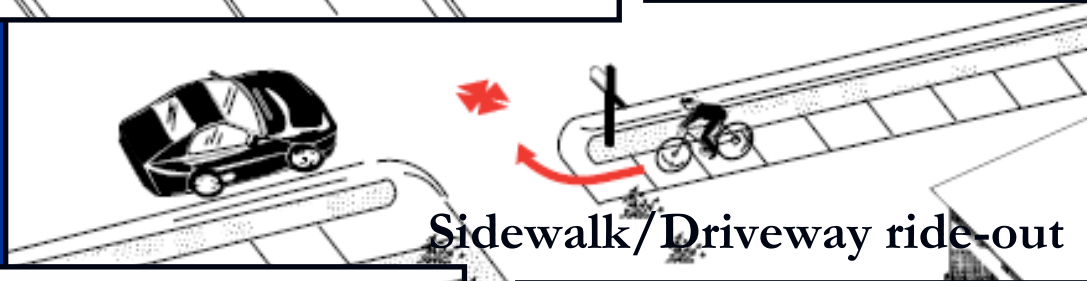
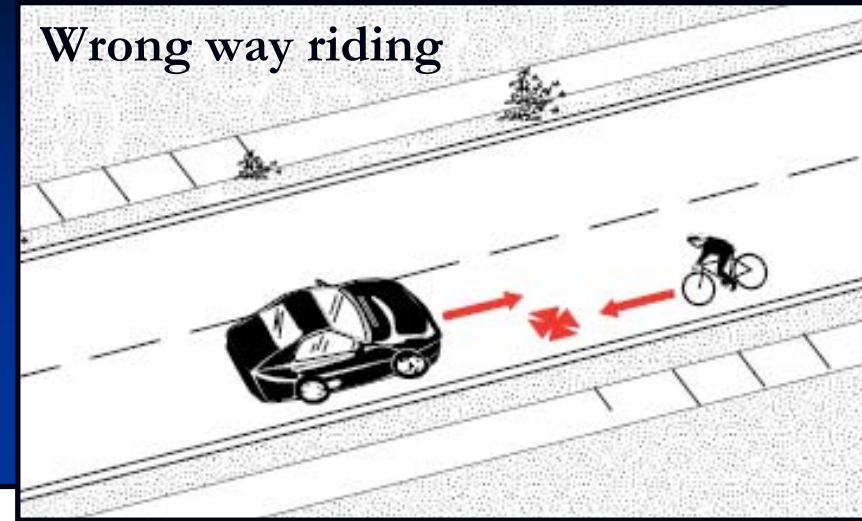
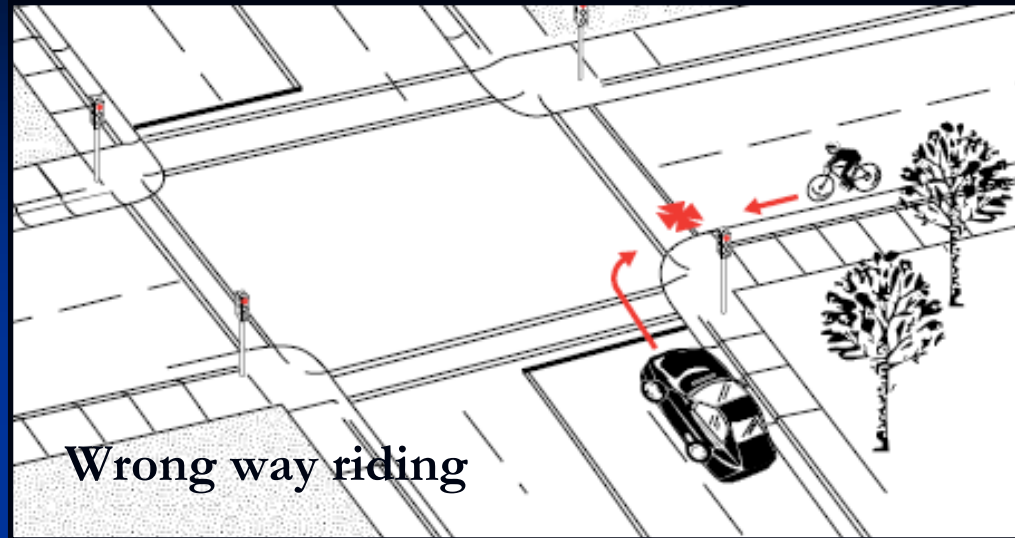


Fair Game Rules for Targeting Pedestrians :

- While it is illegal to begin crossing on a flashing “Don’t Walk” signal, the main safety issue is getting pedestrians out of the crosswalk before the light changes (countdowns provide info):
 - Ticket only if they remain in the crosswalk when signal changes.
- Crossing against the signal when no cars are approaching:
 - Officer discretion, verbal warning or ticket.
- Mid-block crossings:
 - If between signals or not, if pedestrians are vigilant, scanning, not taking right of way from vehicles, no action need be taken.
- Pedestrians who are drunk (take to a place of safety).
- Dealing with a pedestrian’s identification.

Break

Frequent Cyclist At-Fault Crash Types:



DC Bicyclist Laws :

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>
1201.1	Basic vehicle rules	Every person riding a bicycle on a highway shall be subject to all the duties applicable to drivers of motor vehicles....
1201.2	Keeping to the right side of the roadway	<p>Any person operating a bicycle upon a roadway at less than the normal speed of traffic shall travel as closely as practicable to the right-hand curb or edge of the roadway.</p> <p>A bicyclist may move away from the right-hand curb under any of the following situations:</p> <ol style="list-style-type: none">(1) When overtaking and passing another bicycle or other vehicle proceeding in the same direction;(2) When preparing for a turn;(3) When encountering road hazards, parked vehicles, or a "substandard" lane (11 ft. wide or less)(4) When necessary to comply with lane use restrictions; or(5) When necessary for the bicyclist's safety.
1201.3 (c)	Passing stopped vehicles	If a lane is partially occupied by vehicles that are stopped, standing, or parked in that lane, a person operating a bicycle may ride in that or in the next adjacent lane used by vehicles proceeding in the same direction.

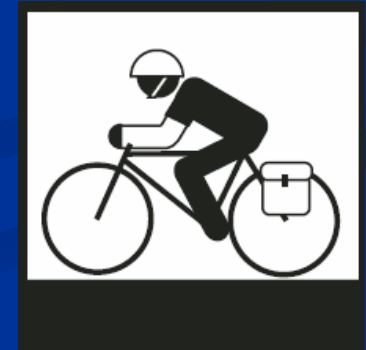
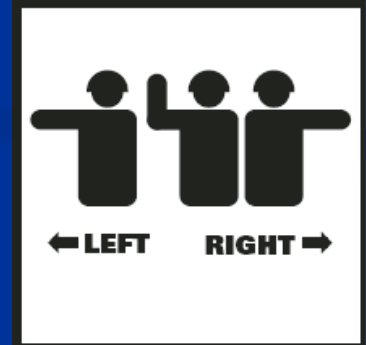
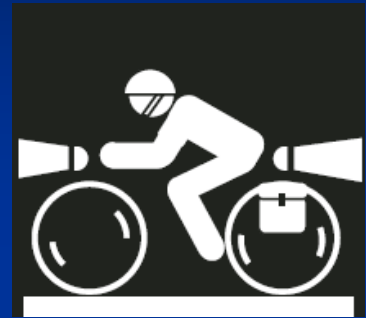
DC Bicyclist Laws:

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>	<u>Fine</u>
1201.1	Violating basic vehicle rules	Every person riding a bicycle on a highway shall be subjects to all the duties applicable to drivers of motor vehicles....	N/A
2201.1	Failure to keep to the right side of the roadway	Upon all roadways of sufficient width, a vehicle shall be driven upon the right half of the roadway.	\$25
2103.7(a)	Passing red light	A steady red signal shall have the following meaning: a) vehicular traffic facing the signal shall stop before entering the crosswalk on the near side of the intersection or, if none, then before entering the intersection.	\$25
1204.2	Headlight and rear reflector required at night	Each bicycle, when in use at night, shall be equipped with a white lamp on the front...visible from at least 500 feet and a red reflector on the rear...(a rear red lamp may be used [1201.3])	\$25
1201.13	Suddenly leaving a sidewalk	No bicyclist shall suddenly leave a sidewalk and rid into the path of a vehicle which is so close that it is impossible for the driver to yield.	\$25
1201.10	Riding on sidewalks prohibited within CBD	There shall be no prohibition against any person riding a bicycle upon a sidewalk within the District, so long as the rider does not create a hazard; provided, that no person shall ride a bicycle upon a sidewalk within the Central Business District	\$25

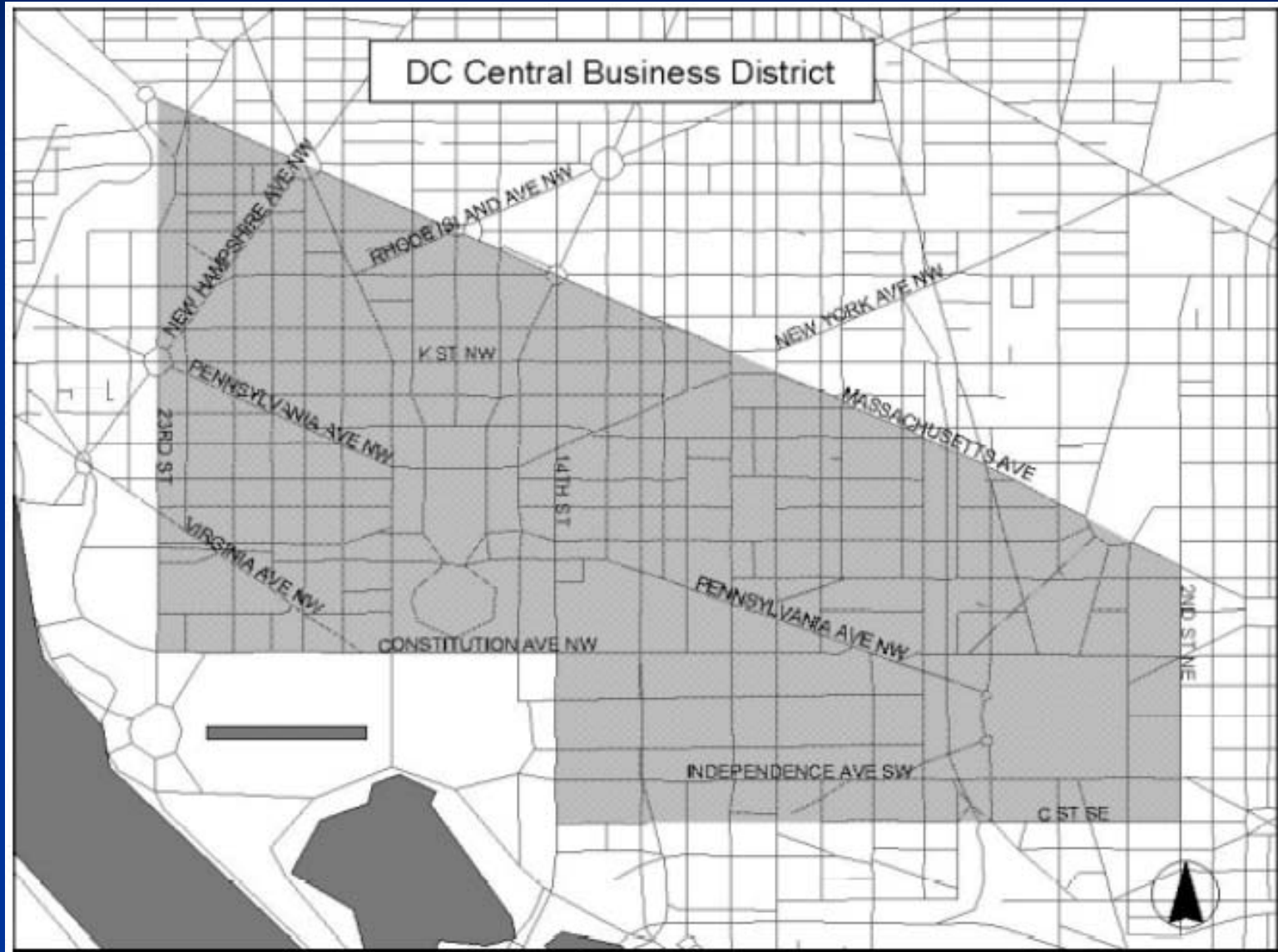
Targeting Bicyclists:

High value citations of cyclists:

- Running red lights
- Riding at night without lights or required reflectors.
- Failing to signal an abrupt turn
- Children under 16 are required to wear helmets



No Sidewalk Riding in Central Business District



Targeting Bicyclists:

Challenges with enforcement aimed at the bicyclist:

- Cyclists are highly mobile
- Cyclists may not carry identification
- Cyclist may be a child
- Cyclist may be anti-authoritarian
- How to pull over a cyclist

When **NOT** to target bicyclists

- Lack of registration (new legislation pending).
- Riding on sidewalk **OUTSIDE** the CBD, **UNLESS** they are reckless.
- No helmet (**UNLESS** they are under 16).
- Hit by door.
- Hit by left turning car.

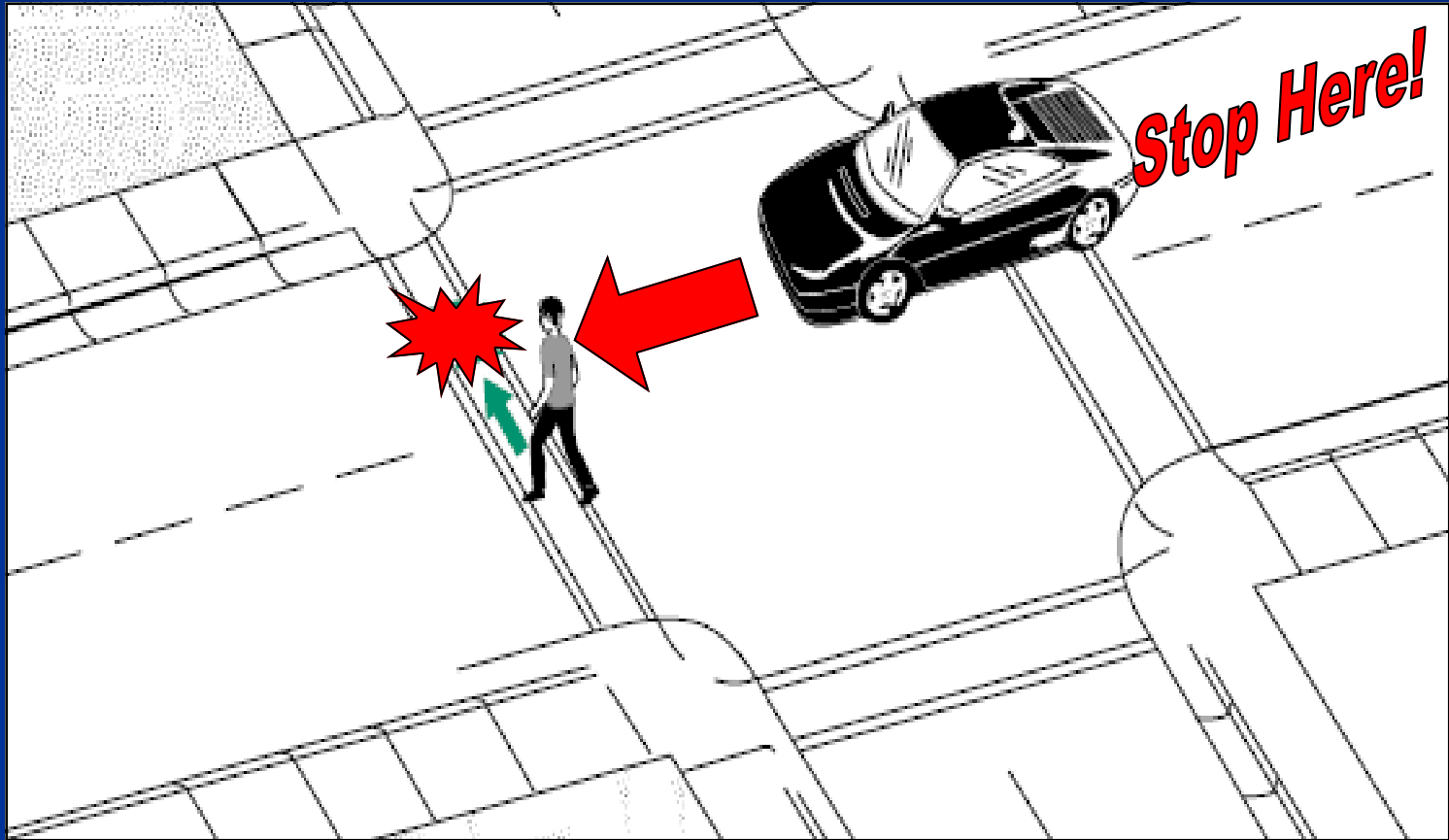
Targeting Motorists:

- Few motorists go out of their way to deliberately hit or frighten pedestrians or bicyclists.
- However, an equally small number really appreciate the impact they can have on the safety and comfort of those around them who are outside the protection of a steel cage.
- Motorists are on the lookout for threats to their safety and so are scanning for other vehicles - they may not be paying attention to the pedestrian or cyclist ahead of them in the road.
- They may not realize that speeding and failing to yield prevents people from crossing the street or feeling comfortable riding a bicycle

Target Motorist Citations- Ped ROW:

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>	<u>Fine</u>
50-2201.58 (dc code) Write as a PD-61-D	Failure to yield right of way to pedestrian at signalized intersection	b) A pedestrian who has begun crossing on the walk signal shall be given the right-of-way by the driver of any vehicle to continue to the opposite sidewalk or safety island, whichever is nearest.	\$50
50-2201.28(a) Write as a PD-61-D	Failure to yield right of way to pedestrian at un-signalized crosswalk	(a) The driver of a vehicle shall STOP and give right of way to a pedestrian crossing the roadway within any marked crosswalk or unmarked crosswalk at an intersection.	\$50
2013.7(c)	Failure to yield right of way to vehicle or pedestrian while turning right on red	A vehicle facing a steady red signal may cautiously enter the intersection to turn right after stopping. The vehicle shall yield right-of-way to pedestrians within an adjacent crosswalk and to other traffic lawfully using the intersection.	\$50
2221.5	Passing a vehicle stopped for a pedestrian	Whenever any vehicle is stopped at a marked crosswalk or at an unmarked crosswalk at any intersection to permit a pedestrian to cross the roadway, the driver of any vehicle approaching from the rear shall not overtake and pass the stopped vehicle.	\$50

Frequent Motorist At-Fault Crash Type:

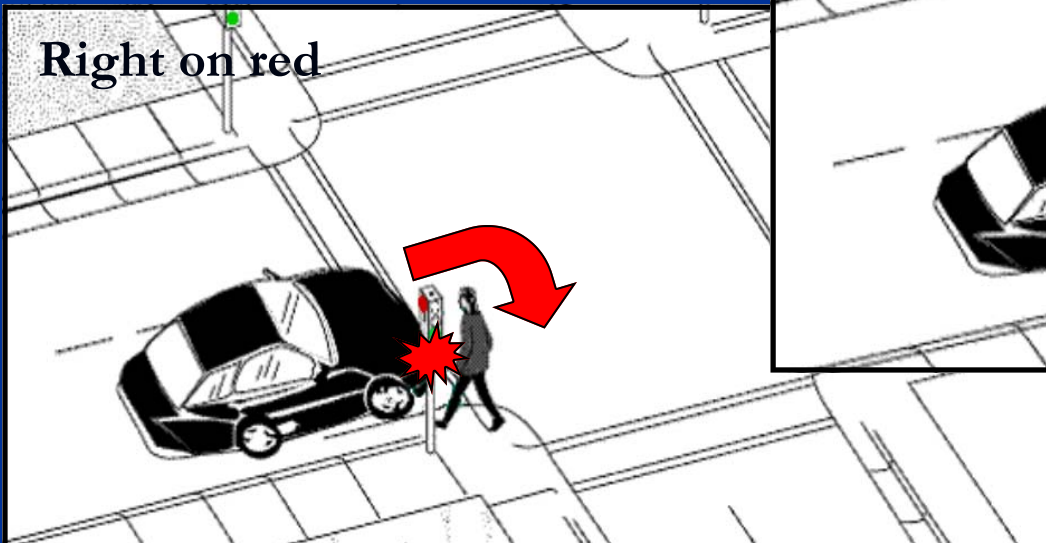
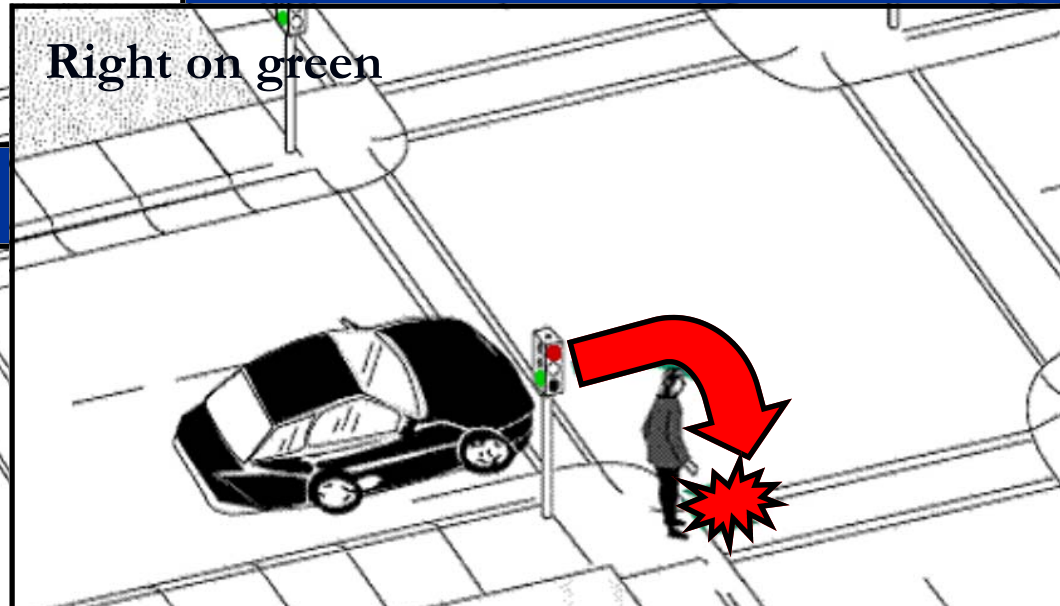
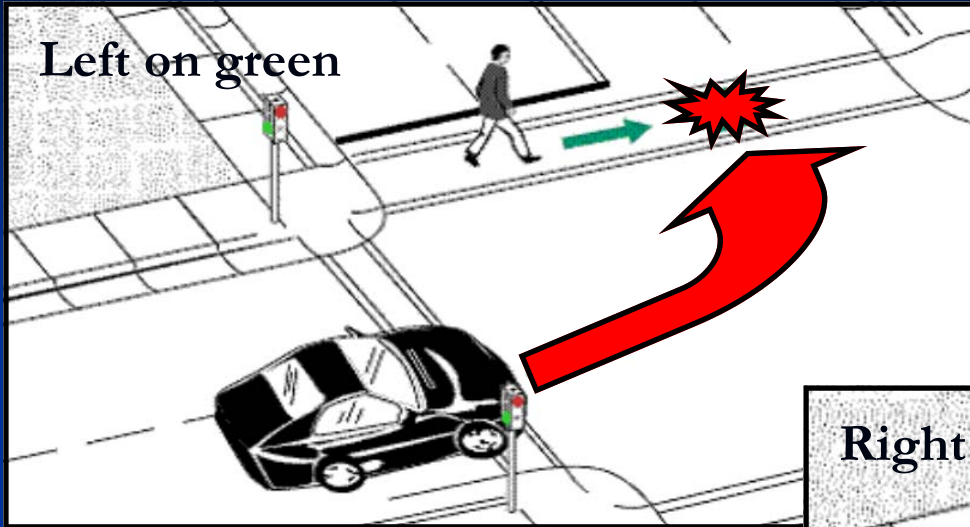


Local Example:

- 14th and Shepherd St., NW

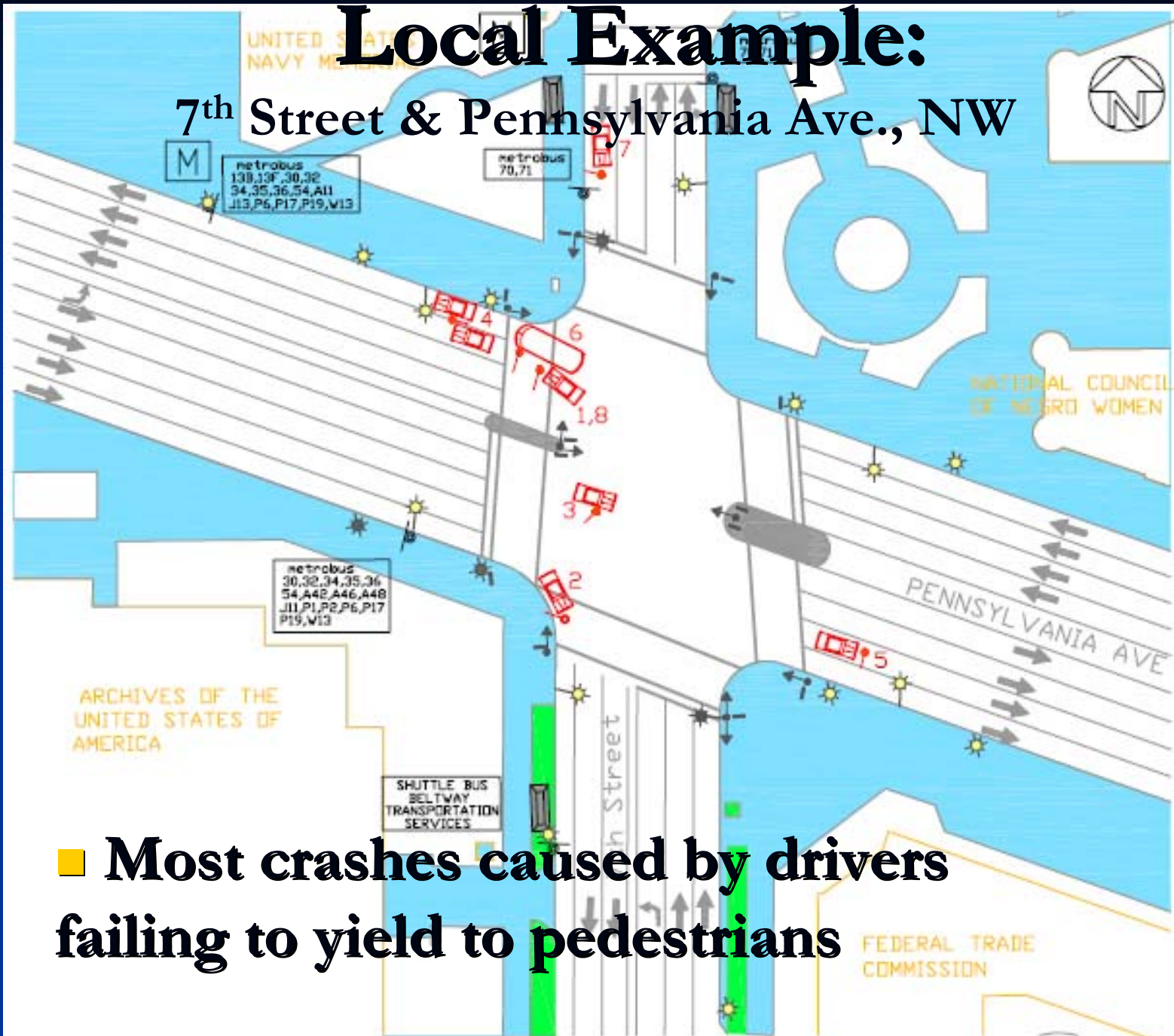


Frequent Motorist At-Fault Crash Types:



Local Example:

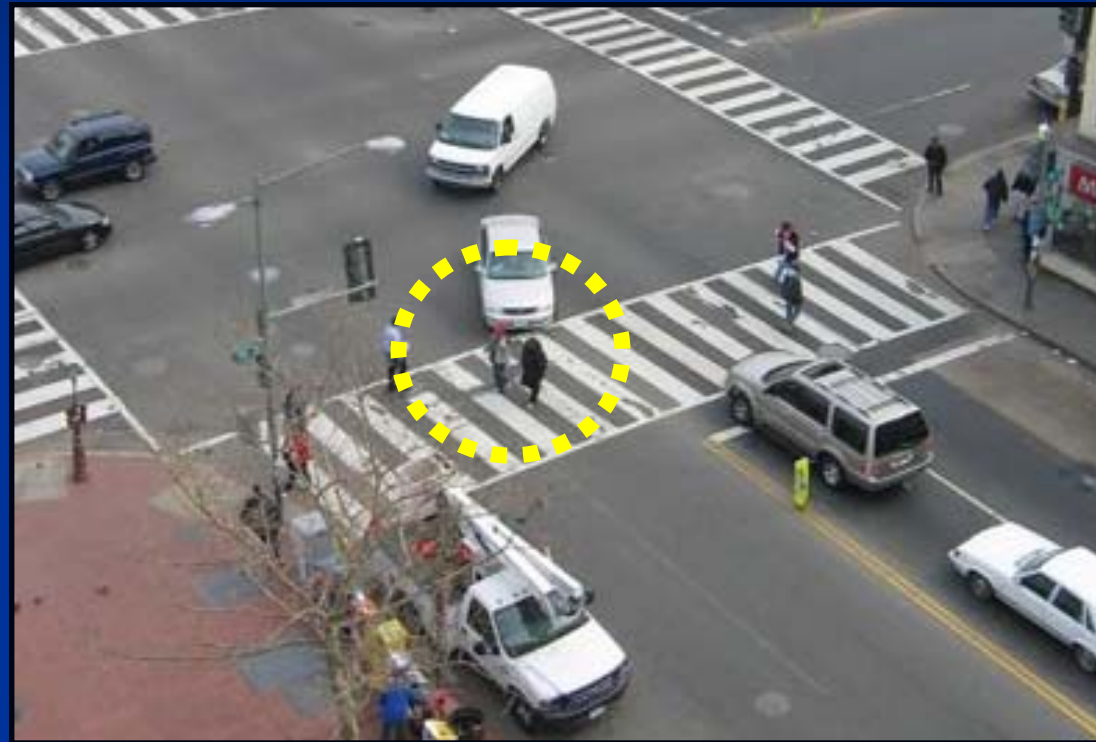
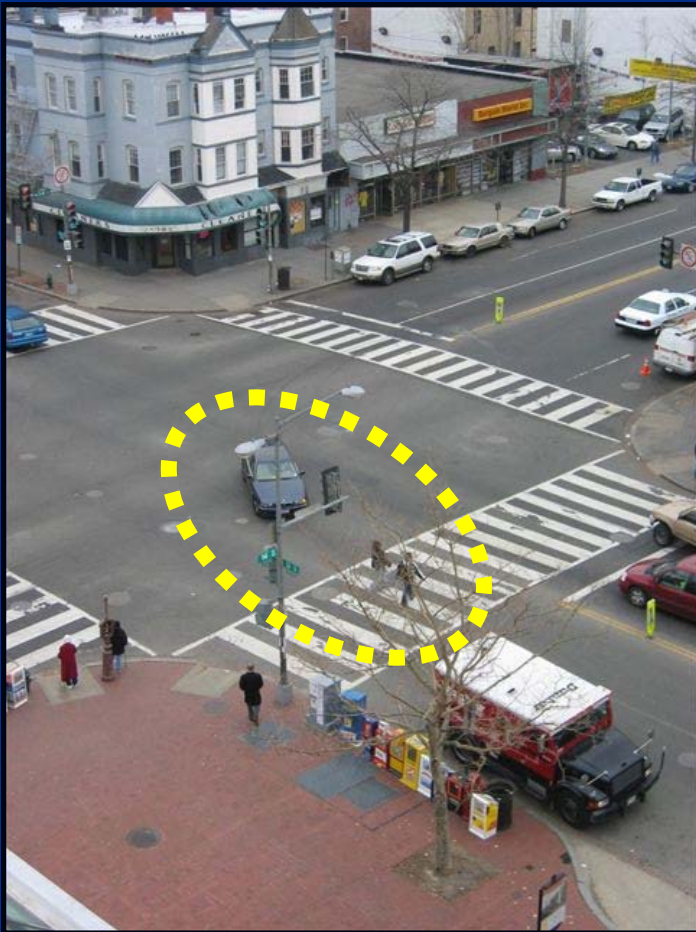
7th Street & Pennsylvania Ave., NW



- Most crashes caused by drivers failing to yield to pedestrians

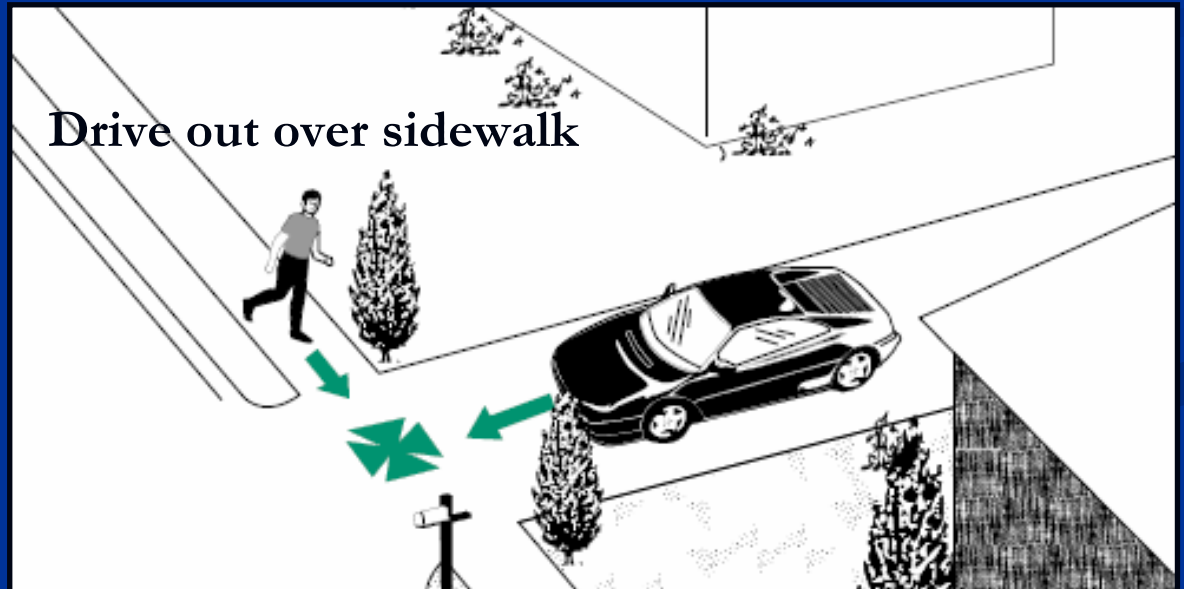
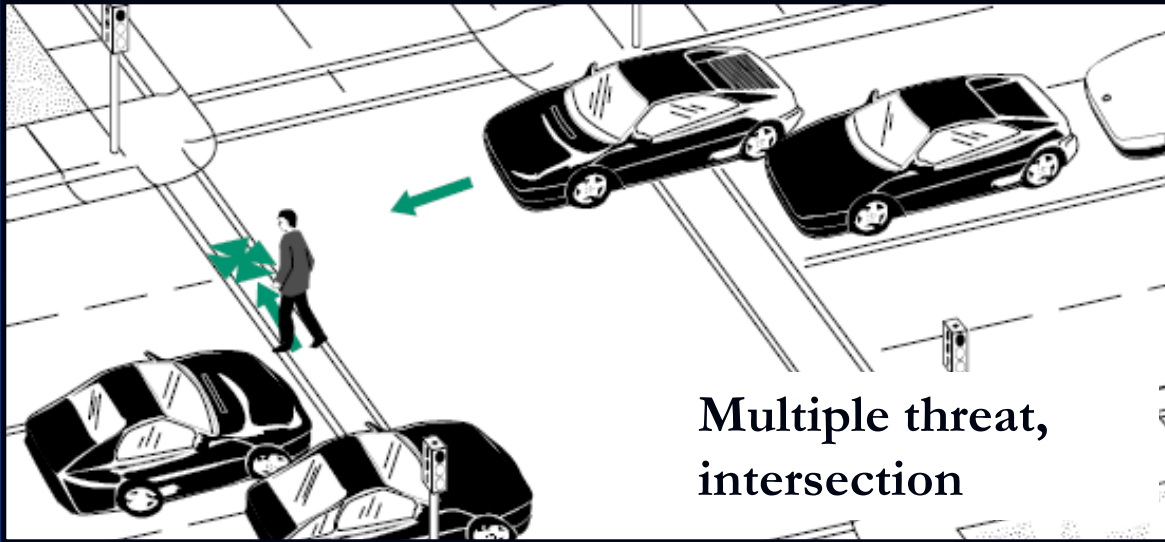
Local Example:

- 14th and U St. NW



- Left arrow/Don't Walk phase

Frequent Motorist At-Fault Crash Types:



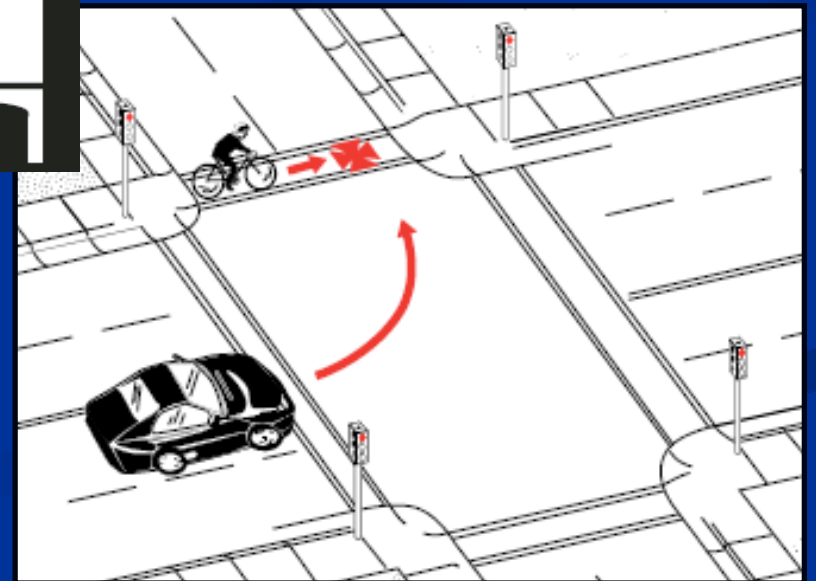
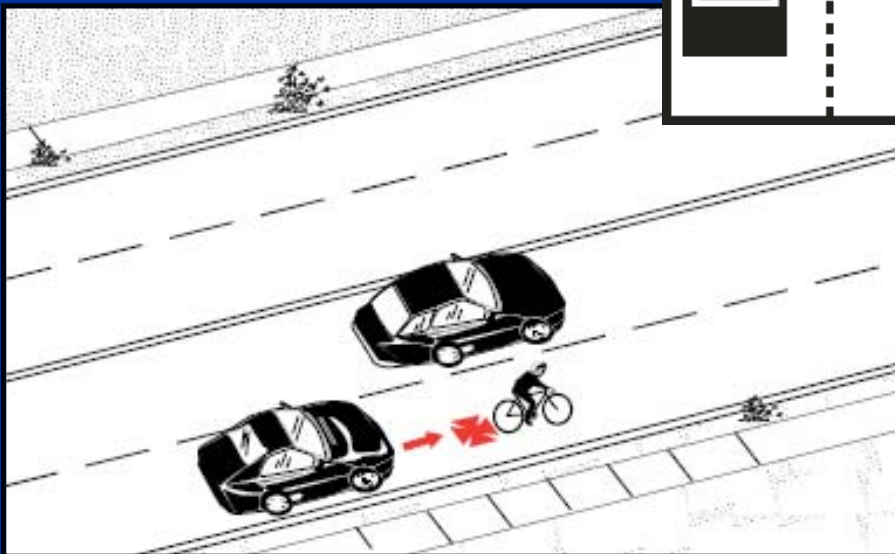
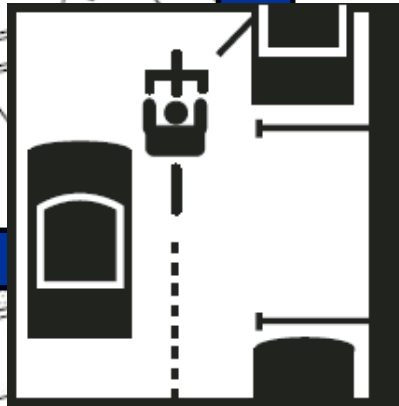
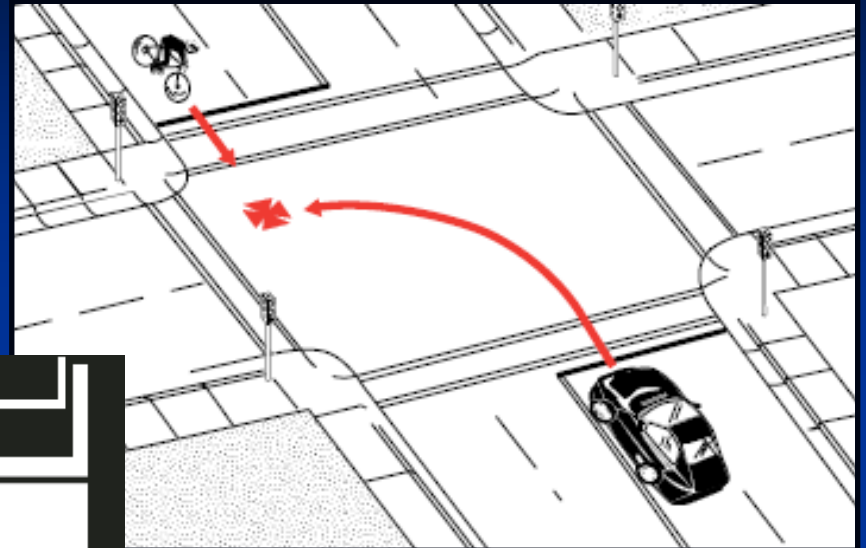
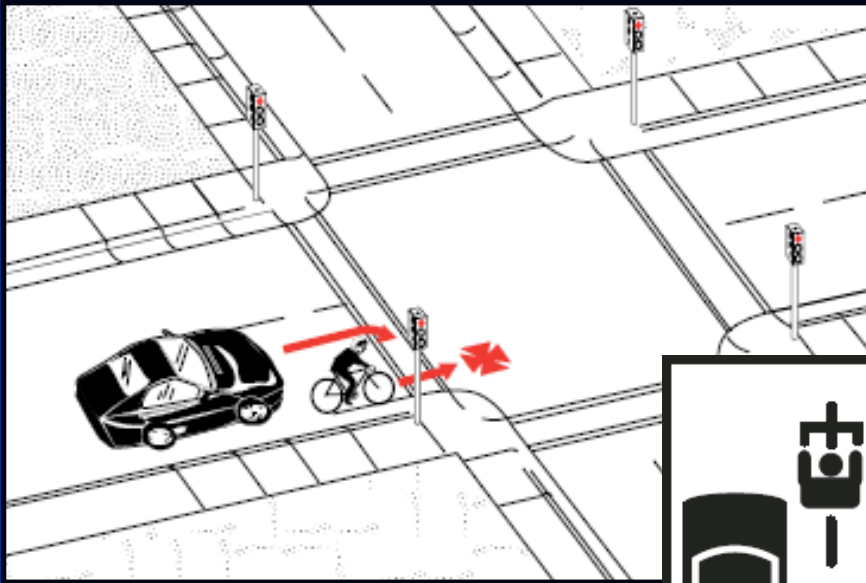
Target Motorist Citations- Bike ROW:

- Some bicycle crashes and near crashes are caused by the bad behavior of motorists.
- Drivers may not realize the impact of riding too close to a cyclist.
 - Or speeding past a rider just to cut in front of them and make a right turn
 - Or turning left in front of a cyclist with the right of way.

Target Motorist Citations- Bike ROW:

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>	<u>Fine</u>
2208.2	Failure to yield right of way to vehicle at intersection	The driver of a vehicle intending to turn to the left shall yield right of way to any vehicle approaching from the opposite direction which is so close as to constitute an immediate hazard.	\$25
2214.4	Opening door or permitting door to open on traffic side	No person shall open a door of a vehicle on the side where traffic is approaching unless it can be done without interfering with moving traffic or pedestrians and with safety to himself or herself and passengers.	\$25
2202.2	Passing at a safe distance	The driver of a vehicle overtaking another vehicle proceeding in the same direction shall pass to the left at a safe distance (min. 3')....	\$25

Frequent Motorist At-Fault Crash Types:



Targeting Motorists:

Other areas of focus for enforcement on the motorist:

- Speeding, particularly in neighborhoods with high levels of pedestrian and bicycle traffic and near schools.
- Driving while impaired by drugs or alcohol.
- Aggressive and reckless driving.



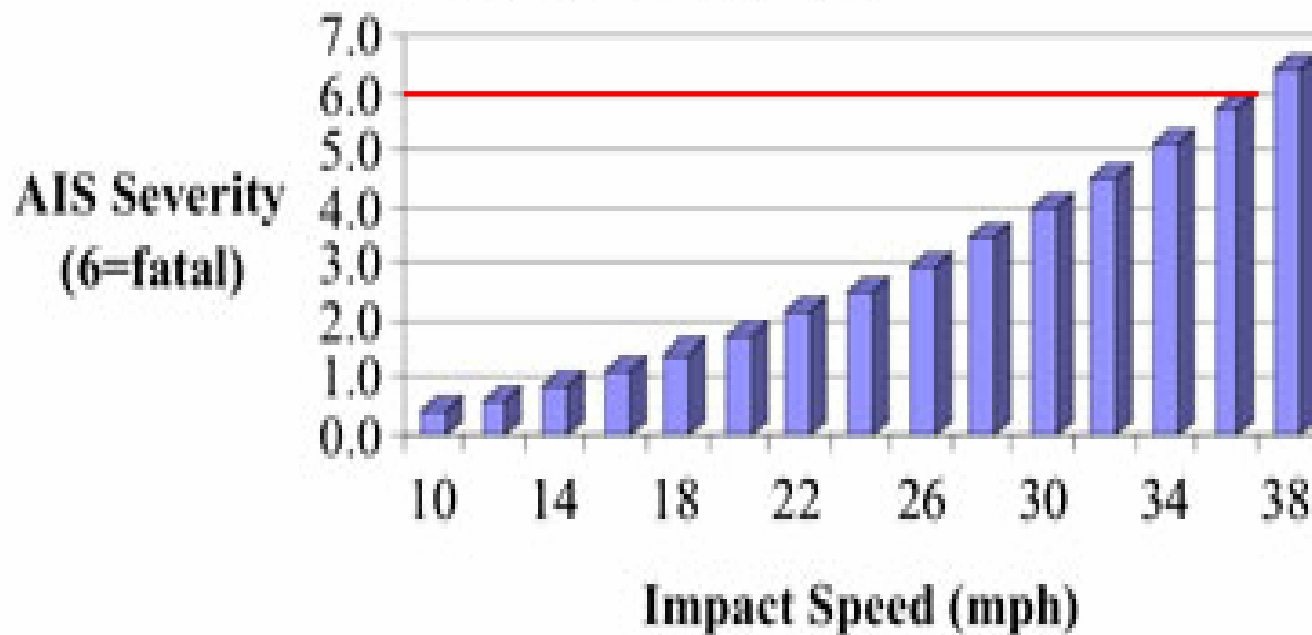


Speed-

The Critical Factor

Speed & Injury Severity:

Impact Speed vs. Pedestrian Injury (impact only)



Speed Enforcement is Key!



**Hit
at
40mph**

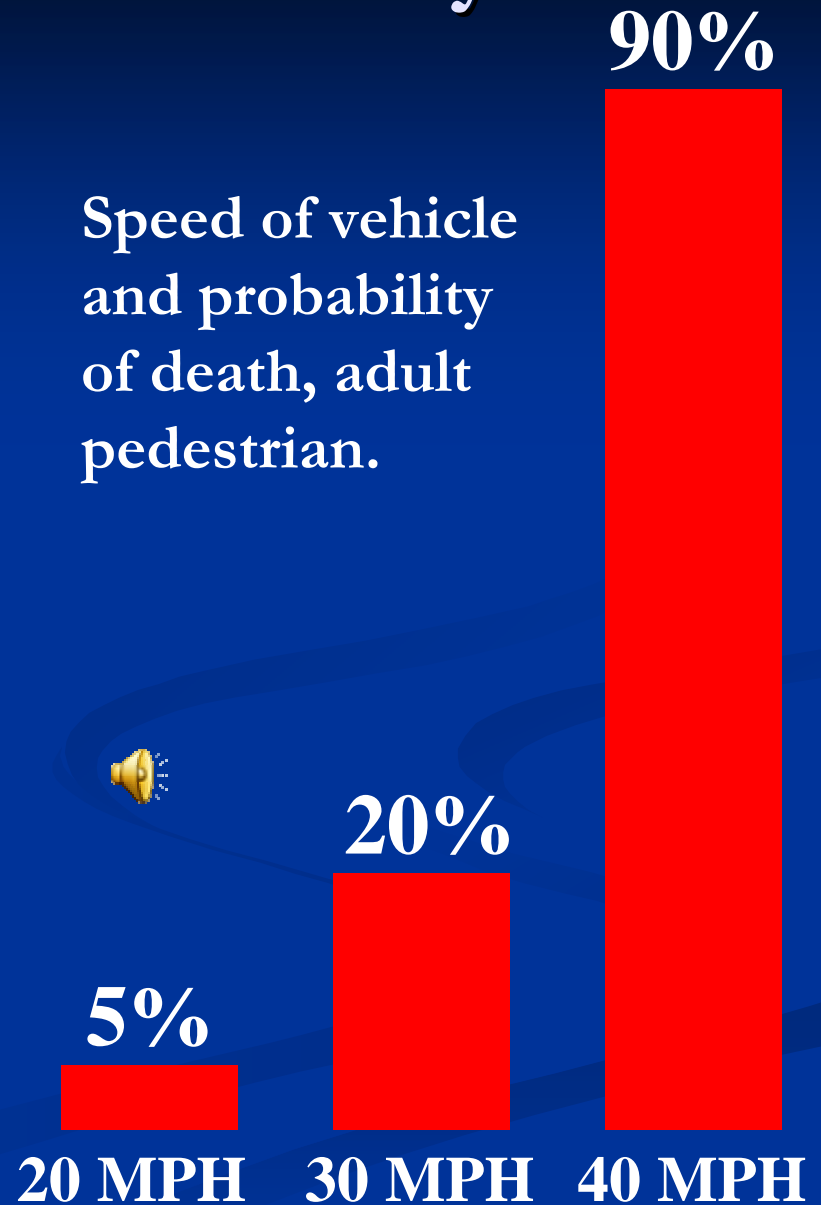
There is an
80% chance
I'll die.

**Hit
at
30mph**

There is an
80% chance
I'll live.

It's **30** for a reason.

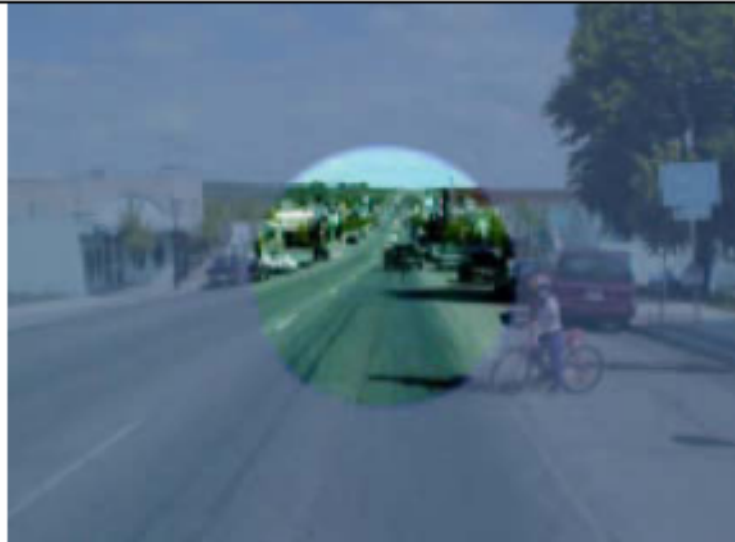
Speed of vehicle
and probability
of death, adult
pedestrian.



**At 5mph over the 30mph limit,
how much further does it take to stop?**



Driver Focus at Different Speeds



Driver focus at 40 mph



Driver focus at 30 mph



Driver focus at 20 mph



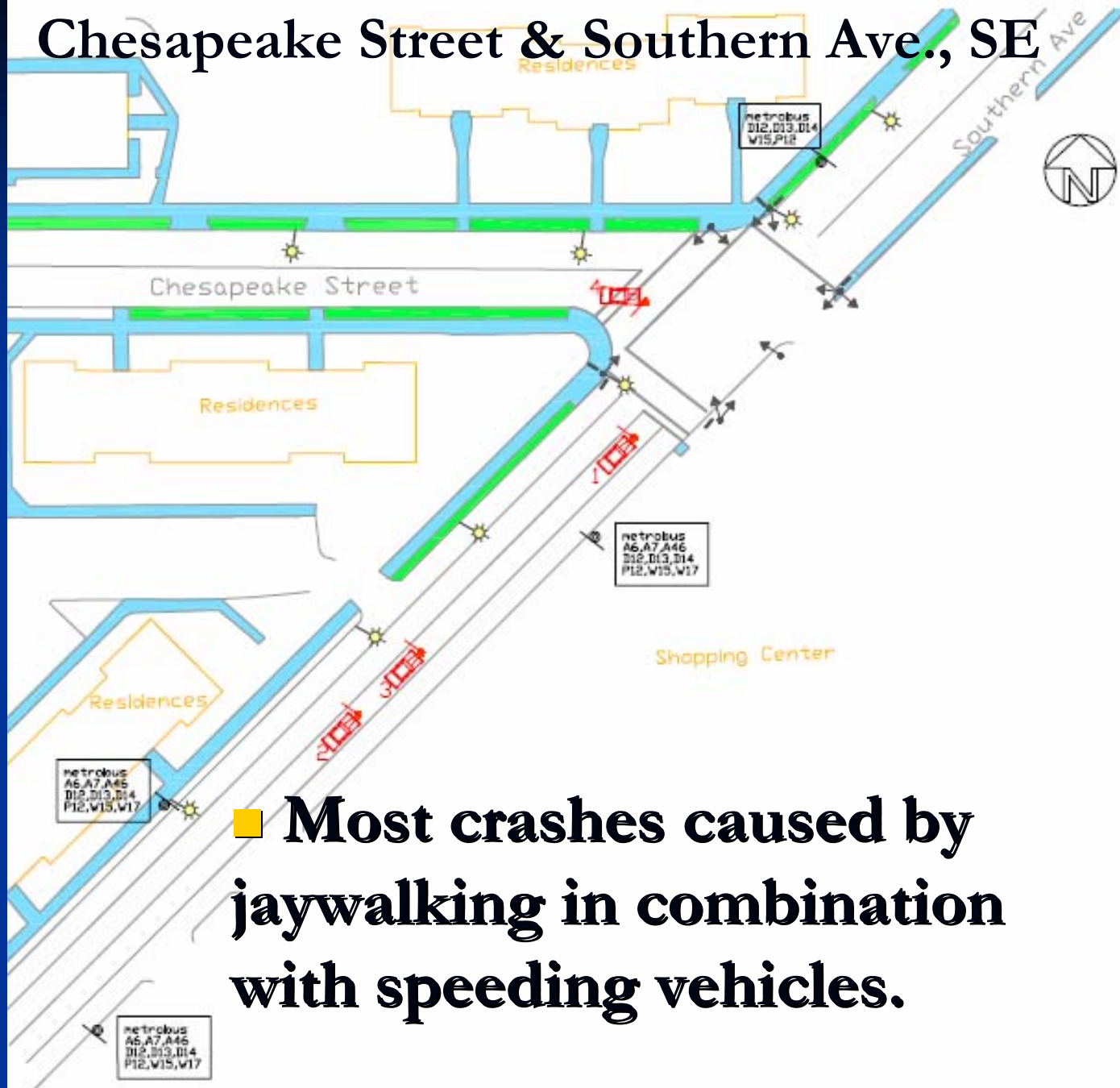
Driver focus at 15 mph

(Source: TGM, 1999)

Target Motorist Citations- Speed:

<u>Statute Number</u>	<u>Citation</u>	<u>Description</u>	<u>Fine</u>
2300.2	Due care provision	Every driver of a vehicle shall: <ul style="list-style-type: none">■ exercise due care to avoid colliding with any pedestrian upon any roadway;■ give warning by sounding the horn when necessary; and■ exercise proper precaution upon observing any child or any confused or incapacitated person upon the roadway.	\$50
2200.5	Special hazards as to pedestrians	The driver of every vehicle shall drive at an appropriate reduced speed when special hazards exist with respect to pedestrians, road or weather conditions.	\$50

Chesapeake Street & Southern Ave., SE



■ **Most crashes caused by jaywalking in combination with speeding vehicles.**

Street Smart Enforcement 2007

- March 19-24
- April 9-14
- Target high crash corridors and intersections
- Enforcement resources
- Educational resources
- Media campaign

Street Smart Enforcement 2006

- Over 4000 total citations
 - 60% to drivers
 - 40% to pedestrians
 - 118 citations to cyclists



Street Smart Enforcement 2006

- MPD in Action:





2007 DC Enforcement Wave



■ Pedestrian High Crash Intersections/Locations (2003-2005)

Rank	# of Crashes	Location	Quad
1	9	Benning Rd. and Minnesota Ave.	NE
2	6	7 th St. and Pennsylvania Ave.	NW
3	6	12 th St. and Pennsylvania Ave.	NW
4	6	Bladensburg Rd. and New York Ave.	NE
5	6	North Capitol St. and Florida Ave.	NW/NE
6	6	North Capitol St. and Massachusetts Ave.	NW/NE
7	6	Mississippi Ave. and Wheeler Rd.	SE
8	6	Alabama Ave. and Stanton Rd.	SE
9	6	Florida Ave. and Georgia Ave.	NW
10	5	18 th Street and Columbia Rd.	NW
11	5	South Capitol St. and Southern Ave.	SE/SW
12	5	Chesapeake St. and Southern Ave.	SE
13	5	4 th St. and Rhode Island Ave.	NE
14	4	5 th and H St.	NW
15	4	17 th and K St.	NW
16	4	16 th and Lamont St.	NW
17	4	14 th and Spring Rd.	NW
18	4	Connecticut Ave. and Macomb St.	NW
19	4	Connecticut Ave. and Porter St.	NW
20	4	South Capitol and M St.	SE/SW

2007 DC Enforcement Wave

■ Pedestrian High Crash Corridors

- Georgia Avenue, NW
- 14th Street, NW, in Ward 1
- H Street- Benning Road, NE
- Bladensburg Road, NE (speeding)
- Southern Avenue, SE (speeding)
- Wisconsin Avenue, NW at the commercial nodes
- Connecticut Avenue, NW at the commercial nodes

Enforcement Resources

■ Crosswalk Law Card for Motorists

*** District of Columbia ***
Pedestrian Safety for Drivers

A. At crosswalks and intersections without signals:

- The driver of a vehicle shall **stop** and give the right-of-way to a pedestrian crossing the roadway within a marked crosswalk or unmarked crosswalk at an intersection.

DC Code §60-2201.28(a) (2005)

PENALTY: \$50 and two points
Up to \$500 and/or up to 30 days in jail

B. At intersections with signals:

- When proceeding on a green signal, drivers turning right or left shall yield the right-of-way to pedestrians lawfully within the crosswalk.
- When turning right on red after stopping, drivers shall yield the right of way to pedestrians lawfully within the crosswalk.

1. 18 DCMR §2103.3(b) (1995)

2. 18 DCMR §2103.8(c) (1995)

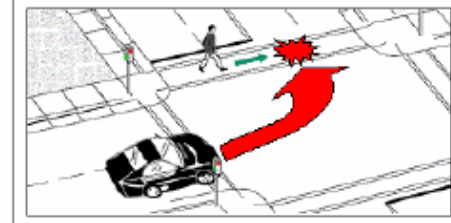
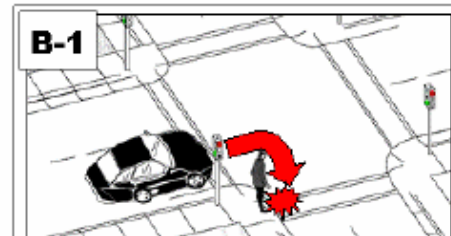
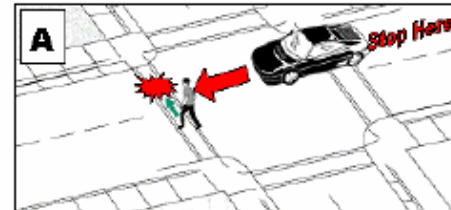
PENALTY: \$50 and two points



District Department of Transportation

Metropolitan Police Department
www.mpd.dc.gov
District of Columbia
Department of Transportation
Telephone: (202) 671-2730
www.ddot.dc.gov

*** District of Columbia ***
Pedestrian Safety for Drivers



See reverse side for explanation of laws

Education to Back Up Enforcement

STREET SMART Pedestrian Safety Media Campaign 2007:

- Conducted since 2002
- Washington and Baltimore metro areas
- Funded by highway safety grant funds (DC, MD, VA)
- Targets pedestrians, drivers and cyclists
- English and Spanish
- 4 week campaign



A promotional poster for the "Steel vs. Flesh" pedestrian safety campaign. The top half features the title "Steel vs. Flesh" in large, stylized letters, with "Steel" in white and "Flesh" in red. Below the title, a man in a brown jacket and red boxing gloves is shown in a boxing stance, leaning against a dark-colored car. The car is positioned on the left side of the frame. The background is a dark, textured surface. At the bottom, the text "It's no contest. Cross streets carefully!" is written in white. In the bottom right corner, the "STREET SMART" logo is displayed, along with the text "Area Police are enforcing pedestrian safety laws." and the website "streetsmart.mwcog.org".

Educating Pedestrians

- Street Smart educational handouts.

SAFETY TIPS

For Drivers, Pedestrians, and Bicyclists

FOR DRIVERS:



- /// Stop for pedestrians at crosswalks.



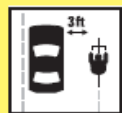
- /// Slow down and obey the posted speed limit.



- /// Look before opening your door.



- /// Be careful when passing stopped vehicles.



- /// Allow 3 feet when passing bicyclists.

STREET
SMART

A public safety program of the
District of Columbia, Maryland and Virginia.

FOR PEDESTRIANS:



- /// Cross the street at marked crosswalks and intersections.



- /// Before crossing, look left, right, then left again.



- /// Use pedestrian pushbuttons.



- /// Begin crossing the street on "Walk" signal.



- /// Stay visible after dark and in bad weather.



- /// Watch out for trucks and buses backing out of parking spaces and driveways.

FOR BICYCLISTS:



- /// Obey all regulatory signs and traffic lights.



- /// Never ride against traffic. Ride with traffic to avoid potential accidents.



- /// Use hand signals to tell motorists what you intend to do.



- /// Ride in a straight line to the right of traffic and about a car door width away from parked cars.



- /// Always wear a helmet. Helmets dramatically reduce the risk of head injury in a bicycle accident.



- /// Use lights at night and when visibility is poor.

PEDESTRIANS and CYCLISTS should WATCH for TURNING vehicles.
MOTORISTS MUST YIELD to CYCLISTS and PEDESTRIANS when TURNING.

Educating Hispanic Pedestrians



**USE THE
CROSSWALKS**
**CRUCE POR
EL PASO
DE PEATONES**

**DON'T GAMBLE WITH YOUR LIFE
LOOK BEFORE CROSSING**

**NO JUEGUE CON SU VIDA
MIRE ANTES DE CRUZAR**

LOOK LEFT, RIGHT, LEFT.



**STREET
SMART**
Think of the Impact You Can Make

Un programa de seguridad pública
del Distrito de Columbia, Maryland y Virginia.



2007 Enforcement Wave



Key Points for Street Smart Enforcement, 2007:

- Enforce fairly among the three groups.
- Concentrate on high-crash corridors/intersections.
- Focus on most egregious ped violators.
- We must write citations to show we are serious, but verbal warnings are OK too.
- Officers should be on foot and/or bicycle in teams of two-four (motorcycles work too).



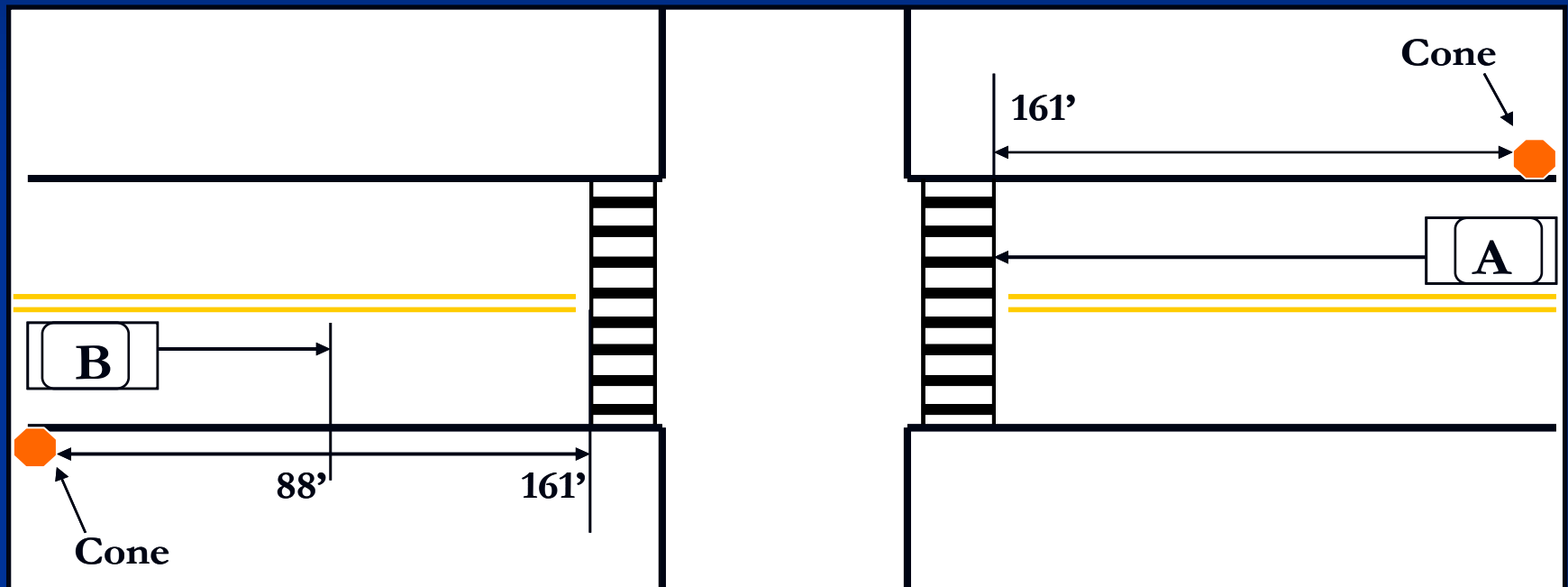
2007 Enforcement Wave



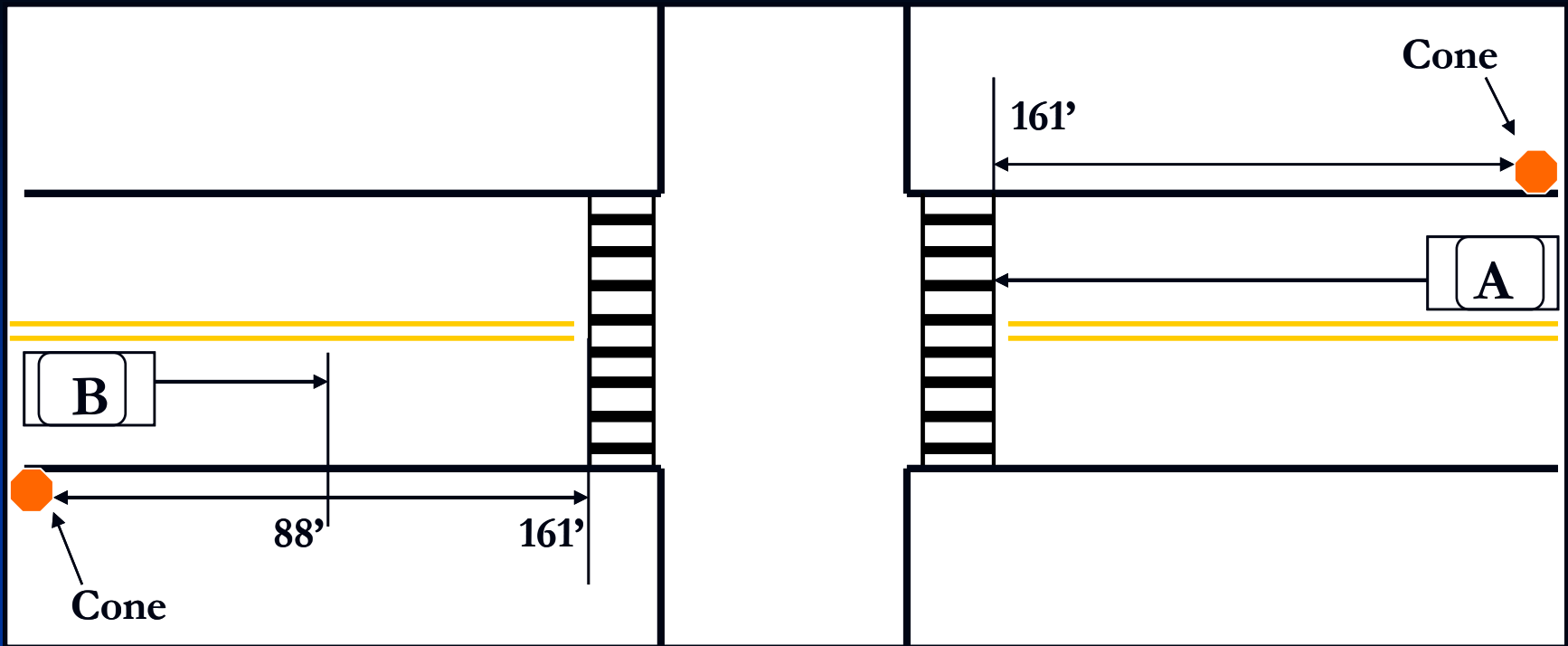
- Pursuit on bike or foot is acceptable to a point – one or two blocks.
- Some violations will require 2-officer team, one to observe the violation and one to apprehend.
- Be diplomatic; explain the program.
- Hand out Crosswalk Law Card to drivers with citations and warnings.
- Don't waste time on “jaywalking” when no cars are near by.

Setting up a Targeted Crosswalk Enforcement Detail

(aka “Crosswalk Sting”)



Set up example: A traffic cone is placed along the edge of the roadway. It is measured out to the safe stopping distance of a vehicle traveling at **10 mph over** the posted speed limit. In this case the, posted speed limit is 25 mph, so the safe stopping distance for car “A” traveling at 35 mph and a 2 second reaction time is 161’.



- The pedestrian (decoy officer) enters the crosswalk as the vehicle approaches the cone, **but before** the vehicle has entered the shaded area. If the vehicle does not stop and yield to the pedestrian, the driver will be cited.
- As you can see in the example, if car “B” is traveling at the posted speed and with a **normal reaction time of 1.6 seconds**, the driver would be able to safely stop in 88', leaving a safe distance of 73' to the crosswalk.