The human costs and economic consequences of speed-related crashes are immense. In 2007, about 31 percent of all fatal crashes were speeding-related, resulting in 13,420 fatalities. In Massachusetts, 15 to 20 percent of all road fatality victims are pedestrians. Nationwide, the economic cost to society of speed-related crashes is estimated to be $40.4 billion per year, according to the National Highway Traffic Safety Administration.

But it doesn't need to be this way. Safety can be increased — for all road users — with modifications and designs that slow down vehicles, increase the visibility of pedestrians and bicyclists, and deter cut-through traffic and speeders — the bane of livability for urban neighborhoods and commercial areas.

Traffic calming utilizes design strategies proven to reduce traffic speeds and consequently reduce the number of pedestrian deaths. The tools can be small in scale, relatively inexpensive, and are easily tested and evaluated. Streets can be made safer by putting them on a “road diet,” reducing speeds and enhancing pedestrian safety. Techniques include signage, pavement devices and paint. Physically or visually narrowing a standard width lane by 1 foot slows cars by 7 miles per hour.

Ideas often start with neighbors and neighborhoods where protection from fast-moving vehicles is acutely needed. Gain support by getting together to talk and think of possible improvements. Look for data on speeding and pedestrian crashes. Then begin working with your municipal agencies. Ask whether your town is willing to adopt overall guidelines and make small-scale expenditures. Signs and pavement paint are relatively inexpensive. Physical street changes may require larger expenditures. Ask for temporary traffic arrangements to test new ideas for your streets prior to large investments.

Proposals may seem simple, but change can take time. These extremely worthwhile investments may involve multiple decisions for municipalities. Be persistent — it may save a life.
Policies

CHANGE IS EASIER IF MUNICIPALITIES ADOPT SOME OVERALL GUIDELINES.

Complete Streets: Streets should be designed to meet all users’ needs equally, not to prioritize vehicles.

Limit cut-throughs: “Slow/local” streets can be designated to keep through traffic on the “main” streets.

Sidewalks: Walkways are needed on both sides of the street for safety, wide enough [minimum 5ft] clear to allow walkers to pass one another without walking single file.

Clear views at crosswalks: Parked vehicles can block visibility. Keep parking back from corners so that pedestrians and drivers are more visible to one another.

Frequent/more walk time: Synchronizing walk signals and vehicle green lights allows parallel walking with vehicles, giving pedestrians more opportunities and time to cross during the walk phase. This reduces wait time for walkers, which is important since studies show people tend to wait only 30 seconds for a walk light.

Countdown signals: Countdown pedestrian signals that show seconds remaining for the crossing phase are now required in all new signals in U.S.

Neighborhood plans: Carefully tailored plans for neighborhood improvements encourage non-auto travel, enhance neighborhoods and promote livability.

Building placement: Zoning policy can guide building closer to street lines to visually narrow a street.

Shared streets: These are roads with joint and equal rights for vehicles, pedestrians and cyclists, with no signs or curbs. Drivers pay more attention and drive more safely when they do not have priority.

ADA requirements: All streets and sidewalks must conform to Americans with Disabilities Act [ADA] requirements.

Emergency vehicles: All streets must accommodate fire, police and other emergency vehicles, so consult these departments when you plan.

Red light cameras: Photos record location, time, date and plate number of vehicles running a red light and allow tickets to be sent to car owners.

Techniques

SIGNAGE & MARKINGS

Crosswalks: Signalized intersections and heavily-used midblock crossings usually need crosswalks marked on the pavement. A 10 ft crosswalk, with a vehicle stop line 4 ft in front of it, is ideal. Reflective markings should be kept fresh and visible. Crossing locations should be carefully chosen to avoid traffic movements that may make it unsafe for pedestrians to cross.

Calmed neighborhood signs: A warning for drivers that speeding constraints are in place in a local area.

Speed limit signs: Posted signs remind drivers of low speed limits in neighborhoods and school zones.

Humor and eye-catching signs: Non-standard signs can remind drivers that speeding is dangerous — exemplified by the “Where’s the fire?” signs designed by children for Needham, MA.

Stop signs/all-way stops: This method can be very effective in reducing speeds at intersections and makes all road users conscious of others.

Pedestrian signals/signs: An array of methods can make crossing safer: WAIT/WALK signals, flashing yellow beacons, stop or yield signs, “Ped Xing” signs, in-pavement flashers, or signals triggered by walkers.

In-street crosswalk signs: Inexpensive yield-to-peds signs can be placed at the center line of a crosswalk.

Prohibited turn signs: Prohibiting either left or right turns [often only during peak traffic hours] can reduce cut-through traffic and promote pedestrian safety.

LANE NARROWING [REAL & PERCEIVED]

9 or 10 ft lanes: Narrowing lanes leads to more attentive driving, reduced speeds, reduced crashes, and greater tendency to yield to pedestrians.

On-street parking: Parked cars help protect pedestrians, make street lanes narrower and slow traffic — especially if permitted on both sides of the street.

Tree plantings: A row of trees planted parallel to the edge of a roadway reduces perceived street width.

Bike lanes: A striped or painted bicycle lane next to parked cars or abutting the curb will make it safer for bicycles as well as narrower the traffic lane.

Stripping: Center line and edge line stripes can be used to narrow the perceived lane width. The extra area between the lane marking and the curb can be used for parking, bike lanes or left open.

BUMPS & BARRIERS

Rumble strips: Used as median strips or as stop lines, these create tire noise and alert drivers to a change in road conditions. [Must not endanger cyclists.]

Speed cushion: This raised pavement device, midblock curb-to-curb, slows cars but includes spaces cut for bicycles and wider axles of emergency vehicles.

Raised crosswalk: A flat-topped pavement device at least as wide as a crosswalk and level with the sidewalk provides easy and safer crossing for walkers.

Raised intersection: A flat-topped pavement device occupying the entire square where two streets meet [site of many ped/auto conflicts] will slow vehicles.

Curb extension/bulb-out/neckdown: A sidewalk extension into the street into the parking lane] shortens crossing distance, increases visibility of walkers and encourages eye contact between drivers and walkers. [Can also be used at a bus stop, allowing buses to stay in a traffic lane to pick up/drop off passengers, rather than pulling to the curb].

Midblock pinch point: Narrowing the road midblock with a curb extension/neckdown slows vehicles.

Chicane/alignment shift: Varying sidewalk extensions or parking locations to shift traffic lanes from one side to the other slows traffic and raises awareness.

Pedestrian refuge island: A raised area in the middle of the street [median] allows walkers to stop mid-street — useful where crossings are too long for some individuals to cross in one signal cycle.

Tight corners: Rebuilding an intersection's corners with a smaller radius will slow the turning speeds of vehicles.

Street interruption: A barrier placed across a roadway at the entrance to a street, in the median or diagonally across an intersection partially or completely closes the street to through traffic.

One-way streets: Through traffic can be discouraged by a one-way pattern that interrupts direct routes through neighborhoods.

Programs

MASS GOVERNOR’S HIGHWAY SAFETY BUREAU [GHSB] HAS GRANTS AND PROGRAMS TO INCREASE SAFETY.

Radar speed sign/trailer: A roadside LED display informs motorists if they are driving at unsafe speeds. Often used in school zones.

Citizen radar tracking: Working with local government, residents track speed with radar guns on their streets.

Neighborhood education: Residents must be instructed and reminded about pedestrian rights and obligations. Neighborhood safety concerns [speeding, cut-throughs, walker issues] must be discussed.

Driver education: Safe vehicle travel should be promoted through renewed emphasis and reminders about driver-pedestrian rules.

Police enforcement: Law enforcement agencies can enforce local safe vehicle laws, including those for posted speeds and traffic signals and signs.

More information


For examples of traffic calming in Massachusetts or to find tools, publications and other resources on how to be an effective advocate for walking visit www.walkboston.org.