

Traffic Calming | A LIVABILITY FACT SHEET

Since the advent of the automobile, most streets in the U.S. have been designed primarily for cars — fast-moving cars. Streets and parking now take up 25 to 50 percent of all public space in cities.¹

Unfortunately, roadways designed to move traffic at high speeds undermine the historic functions of streets to help people interact and get around, regardless of their mode of transit. Smarter transportation design moves traffic while keeping communities safe and connected.²

For instance, when vehicles traveling at 20 mph collide with pedestrians, fewer than 10 percent of those struck are killed, most injuries are minor and 30 percent suffer no injuries at all. However, when a vehicle is moving at 30 mph, 45 percent of pedestrians hit are killed and many are seriously injured; at 40 mph, more than 80 percent of the pedestrians are killed and all are severely injured.³

According to the 2014 “Dangerous by Design” report, our roads are especially hazardous for children, low-income people and older adults. Even though older adults are 13

percent of the U.S. population, they were 20 percent of pedestrian fatalities in 2011.⁴

Traffic calming is a system of design and management strategies that include narrowed roads, modern roundabouts, chicanes (intentionally added turns in the road), median islands, speed humps, diverters, speed tables and other engineering tools or interventions.⁵ These measures are used with the intent of slowing motor-vehicle traffic, often without reducing overall traffic volumes. The efforts increase safety and create a balanced urban environment for all users, including pedestrians and bicyclists.⁶

Another benefit of traffic calming is that it can give a street a transformative sense of place, thus boosting social interactions, housing and retail businesses.⁷ The changes help reduce pollution, noise and even crime,^{8,9} as it has in communities including Dayton, Ohio, where speed reductions and the closing of streets and alleys to motor vehicles lowered violent crime by 50 percent.¹⁰

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Soon after West Palm Beach, Fla., removed 17 travel lanes in its downtown, new street life and investment followed, revitalizing the city's town center. Traffic calming is also credited with helping reduce crime rates.

Myth-Busting!

■ “Traffic calming will divert cars onto my street.”

Drivers tend to use primary streets and roads because they provide the most direct and efficient route to their destinations. Traffic-calmed streets, when designed with certain measures that slow traffic without causing much diversion, can have little to no effect on overall traffic volume, except perhaps during the construction period. The Institute of Transportation Engineers recommends using traffic circles and long speed humps instead of street closures and standard speed humps as a way to avoid diversion.¹¹

■ “Traffic calming creates traffic jams.”

On roads with less than 20,000 vehicles per day, traffic calming techniques such as “road diets”¹² have minimal or even positive effects on vehicle capacity. One reason: Left-turning vehicles are moved into a center lane. When necessary, bike lanes and center turn lanes can be used for police enforcement and stranded vehicles in order to avoid disrupting the normal traffic flow.¹³

■ “Traffic calming is bad for transit.”

Transit conflicts can be avoided with good planning, such as incorporating a center lane so motorists can swerve around stopped buses or by adding side pull-out bays for buses.

■ “Traffic calming slows down emergency responders.”

By not using short speed humps and stop signs, a traffic-calmed street, even with offset speed tables, can accommodate emergency vehicles without reducing

emergency response times.¹⁴ Drivers can use bicycle lanes to move out of the way, and a center turn lane can be used by responders to efficiently pass other vehicles.

■ “People don’t like traffic calming measures.”

Neighborhood traffic calming projects have gained broad acceptance and support in cities that use an effective and meaningful public engagement process. The redesign of Brooklyn’s Prospect Park West reduced vehicle speeds, increased bicycle use and improved the street’s overall capacity, all while maintaining motorized vehicle travel times. The project provoked a small amount of opposition, but the city, the community board and 70 percent of residents supported the project¹⁵ and succeeded in getting the speed limit reduced even further, to 25 mph.¹⁶

■ “Traffic calming measures are being reversed.”

Traffic calming is proving to be effective, safe and popular. With the exception of short speed humps, of the more than 20,000 road segments calmed nationwide few have been converted back to their original configuration.

■ “The city or community will be held liable for damages.”

Communities seeking traffic calming measures often hear that legal liability is a concern. Nationwide, thousands of traffic calming measures have been installed since the 1970s with less than a dozen liability verdicts. Compared to the stream of liability cases that cities face from simple road maintenance and construction projects, traffic calming has a minimal liability risk.¹⁷ On the major plus side, slower traffic speeds reduce the chance of crashes, and the damage, injuries and fatalities that can result.¹⁸

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How To Get It Right



Atlanta's Cascade Avenue, with up to 17,900 vehicles per day, is a challenge to walk, bicycle or shop.



Cascade Avenue after traffic calming could inspire redevelopment that transforms the neighborhood.

The success of any tool requires using it right, and this is certainly true of traffic calming. Try the following:

■ Embrace a public process and build support

Develop an education and awareness campaign prior to implementation and reach out to community members, elected officials and municipal leaders.

Elected leaders and agency staff may need to see public support first, to inspire their approval and help navigate the implementation. Community advocates can print this fact sheet, talk to neighbors, build community support and then meet with decision makers, news outlets, experts and others to discuss the benefits of traffic calming. Agency staff can engage the public in a meaningful process, such as by hosting charrettes or interactive design workshops to build public acceptance and understanding.

■ Start with a pilot project

Consider doing a pilot project first in an area with light traffic to give drivers a chance to get comfortable with the concept and to allow municipal staff to document what works and what doesn't.

Temporary and portable measures, such as paint, signage and parking changes, can allow for low cost traffic

calming that is also easily removed or converted into permanent structures once the project is shown to be successful.

■ Incorporate traffic calming into larger efforts

Traffic calming is best done in conjunction with another project, such as development, revitalization, utility or maintenance work; a downtown, corridor or transit plan or a new street design. That way the traffic-calming element can simply be incorporated into the larger project's processes.

■ Traffic calming should benefit transit

Transit can help provide the convenient and safe connections that improve public spaces and enhance walking and bicycling trips, but slowing down traffic could interfere with transit functions. Because of that it's necessary to design and coordinate traffic-calming measures to ensure efficient transit movements.

■ Embrace proactive design and use target speeds, not operating speeds

A proactive approach uses design elements to affect behavior and lower speeds. This may be the single most consequential intervention in reducing pedestrian injury and fatality.¹⁹

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Success Stories

■ Hendersonville, North Carolina: Main Street

Main Street is a former state highway that was narrowed to two traffic lanes with widened sidewalks to make downtown more pedestrian-friendly, especially for the one out of four town residents who are retired.

Alternating blocks of diagonal and parallel parking were added to create a serpentine traffic flow that tames traffic even more. After the highway was rerouted to adjacent streets and the Main Street improvements were completed, Hendersonville's retail vacancies dropped from 14 to one.

■ San Francisco, California: Octavia Boulevard

After the 1989 Loma Prieta earthquake rendered the freeway through the Hayes Valley neighborhood unsafe for driving, residents called for the road's removal.

The city built Octavia Boulevard in its place during the 1992 recession with a median, four through lanes, boulevard-style parking lanes, tree-lined walkways, side lanes for local traffic and parking and aesthetic details including special light fixtures. A new park was developed, housing increased, home values went up, employment rose 23 percent, transit trips increased 75 percent, gridlock never materialized and new restaurants and retail shops opened for business.

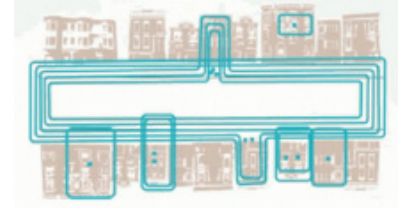
■ West Palm Beach, Florida: Downtown

Traffic calming was initially used as a response to resident complaints about speeding and cut-through motor vehicle traffic. The city found that driver behavior improved, which led to an increase of pedestrians, cyclists and skaters, which led to a substantial crime reduction. Residents and businesses invested more than \$300 million for improvements, increasing property values and business receipts, neighborhood pride and tourism.

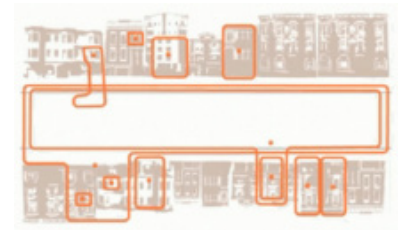
WHY IT MATTERS

In 1981, researcher Donald Appleyard studied traffic on three San Francisco streets and discovered that as traffic increases, the area people consider to be their "territory" shrinks. The image below depicts the relationship between traffic volumes and how connected residents felt to their neighbors.

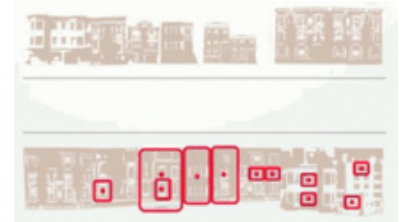
LIGHT TRAFFIC
2,000 vehicles per day
3 friends per person
6.3 acquaintances



MEDIUM TRAFFIC
8,000 vehicles per day
1.3 friends per person
4.1 acquaintances



HEAVY TRAFFIC
16,000 vehicles per day
0.9 friends per person
3.1 acquaintances



RESOURCES

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4. **Traffic Calming 101: the Traffic Calming Toolbox.** Project for Public Spaces. <http://www.pps.org/reference/livememtraffic/#THE%20TRAFFIC%20CALMING%20TOOLBOX>
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