



# Traffic Calming Guide

Parks & Trails New York

## What is 'traffic calming' and how does it work?

Infrastructure designs that help to manage vehicular traffic, reduce speeds, and limit collisions can be described as 'traffic calming' techniques. These techniques can be beneficial, low-cost enhancements to an existing roadway involving physical measures that slow down vehicles through reconfigured corridors and intersections. Traffic calming, as defined by the Institute of Transportation Engineers (ITE), is a combination of many physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. First developed in the United Kingdom in the 1930's, traffic calming interventions create safer shared roadways for motorists, pedestrians and cyclists. Traffic calming techniques can alter driver behavior, increase motorist awareness of pedestrians and cyclists, and improve a rider's sense of comfort and safety.

Traffic calming can be achieved through changes in roadway design. Although roadway changes can make vehicular access more challenging, they are intended to slow traffic and make drivers more aware of their surroundings. These design features encourage individuals to feel more comfortable biking and improve navigation for both non-motorists and motorists. The reallocation of roadway space for other uses leads to a safer environment and encourages less overall use of single-occupant vehicles.

Although traffic calming techniques focus predominantly on physical measures, community engagement and education also plays a role in the planning process. Involving residents in the design process can help with community acceptance, and the eventual success, of any plan. Techniques such as pop-up demonstrations and other pilot projects can help gauge public response to the proposed design, and evaluate the effectiveness of the technique. These temporary, low-cost projects let people work alongside transportation professionals to identify the most appropriate design to achieve their desired outcome.

The United States Department of Transportation Federal Highway Administration Traffic Calming ePrimer provides a detailed description and review of traffic calming techniques.

Photo: temporary materials used to add a decorative crosswalk and median in St. Louis, MO



Photo: Temporary traffic medians can be made more visually appealing, such as in Denver, CO, where beach balls were used as decorations.

## Best Practices for Selecting Traffic Calming Techniques

Selecting the appropriate location and intervention for a given roadway can be challenging. Based on the existing conditions, desired outcome, and budget some facilities may prove to be more effective than others, and in some instances, combining facilities can have a greater cumulative impact.

Traffic calming techniques can be beneficial in localities that experience high levels of pedestrian activity such as downtown neighborhoods, commercial corridors, mixed-use developments, or transportation depots, these designs can also suit the needs of a busy intersection in a rural or suburban setting. Traffic calming interventions should consider all expected users (pedestrians, cyclists, motorists, and others) of a transportation facility to determine not only physical dimensions, but the characteristics and physical abilities that influence user comfort.

Most traffic calming projects will occur in phases, beginning with the identification of a problem. While context and location dependent, the process for determining whether or not a traffic calming intervention should be subject to further review include:

1. A roadway safety concern is raised.
2. Municipal officials, planning staff, and engineers evaluate necessary data (crashes, speed, volume) and engage with the public through community meetings to better understand concern.
3. Once preliminary data has been reviewed, the roadway segment(s) under consideration can be analyzed, either by planning staff or an external consultant, to better understand existing conditions and proposed solutions.
4. One or more community meetings can be held to discuss findings and proposed solutions.
5. Preliminary findings help identify which technique meets the roadway requirements and can address the concern.
6. Depending on the recommend treatment, a temporary installation should be considered as a low-cost option to allow users to evaluate its effectiveness.

The following best practices can help ensure that the process for selecting an intervention and accomplishing a desired outcome is inclusive and thorough:

### Public Outreach

- Define, with input from all involved parties, the objectives and goals to be accomplished from the traffic calming project.
- Involve the general public early in the process to provide residents with a better understanding of study objectives, concepts, and outcomes, and solicit public feedback to gauge interest.
- Citizen involvement often uses through citizen surveys to solicit ideas, meetings with staff to discuss ideas, and open houses to get comments on a draft plan
- Create a set of talking points to familiarize the general public with project goals.
- Brief residents on traffic calming, discuss completed studies, identify traffic calming concepts, and to allow the residents to determine possible solutions to their neighborhood traffic problems through a charrette or neighborhood meeting.
- Creating a [WikiMapping](#) project can allow residents to directly contribute towards the planning process by identifying areas of immediate concern.
- Retain momentum behind initiative by making the topic reoccurring and open for discussion in regular meetings.
- A formal neighborhood traffic calming committee can be established to work with staff or consultants on a plan.
- Seek out regular, persistent contact with state and municipal officials.
- Encourage essential road users (Fire, Ambulance, Waste) to review and comment on traffic calming plans.

### Conceptual

- Allow individuals to initiate a needs study with a phone call, written request, or on-line request; require petitions signed by a specified number or percentage of residents; require the responsible neighborhood association (or city council member where no association exists) to request a study.
- Avoid emergency vehicle routes to minimizing controversy.
- Consider how roadway reconfiguration will impact the parking supply

### Policies

- Establish formal policies on traffic calming in new developments.
- Create a traffic management program.
- Establish guidelines to address the selection of a device in consideration of several factors: the type of problem, the location (intersection, mid-block, school, etc.) and street type (local, collector, arterial).
- Understand warrants, or minimum requirements, that must be met before individual measures are installed.
- Define procedures such as: who gets treatments, how devices are selected, how the treatments are funded, how consensus is defined, etc.
- Develop a prioritization process to identify the sequence in which eligible neighborhoods will receive attention.

- Set clear goals/purpose of the treatment plan which can be used as a benchmark to determine the success of the implemented treatment.
- Develop phasing opportunities if full funding of devices is not available.
- Partner with community groups or Advisory Councils to recruit volunteers to conduct manual counts over a larger geographic area. This would provide a better estimate of bicyclists and pedestrians and would be useful in validating assumptions and analyses used in developing the network.
- Leverage existing financial resources at the local, state, federal, and private level by seeking out grant funding opportunities to fund project implementation.
- Use surplus parking revenues to fund non-motorized transportations investments and streetscape improvements.

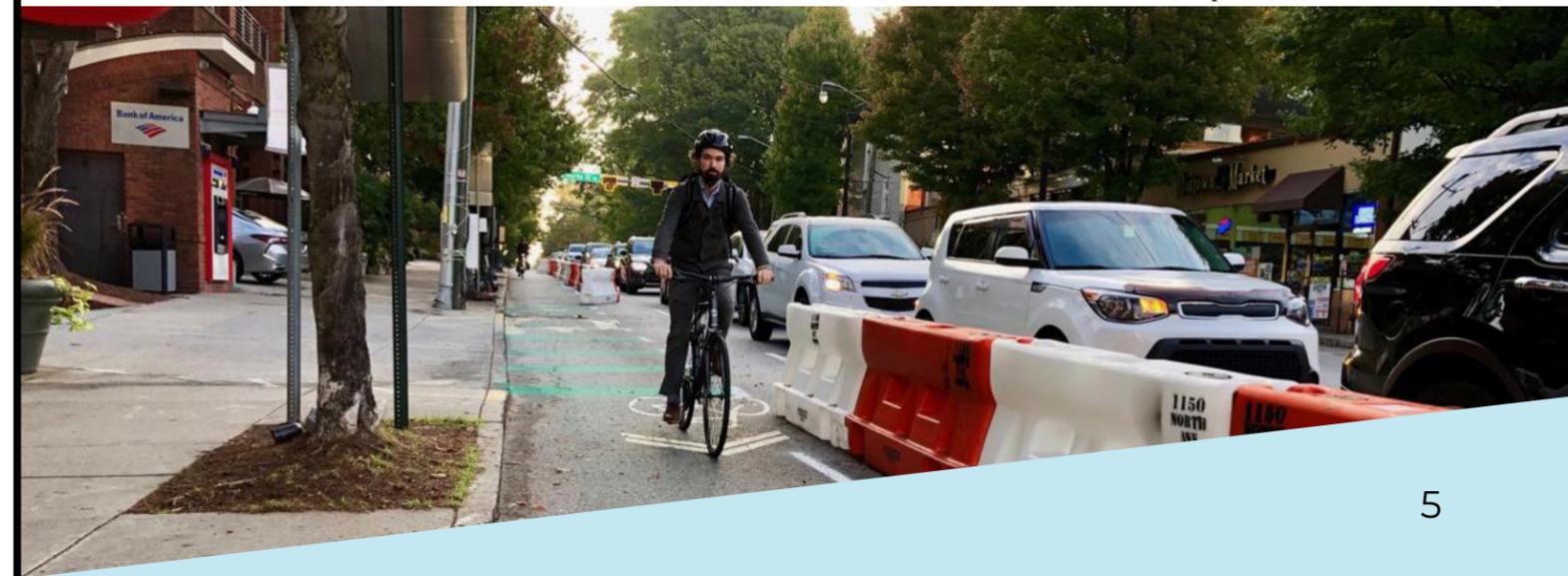
### Collect Data

- Creating an inventory of bicycle and pedestrian-involved crash data would provide justification for recommended design and help to inform solutions.
- Determine the area of impact/study area which will establish the boundaries of the specific traffic calming area.
- Establish an inventory of existing conditions to understand usage and capacity.
- Research design and function of traffic calming techniques to narrow down intervention options.
- Conduct volume and traffic studies to determine if the affected streets meet or exceed requirements specific to the treatment option.
- Create a rating systems to determine priority among competing traffic calming projects.
- Evaluate public support using online surveys or through public meetings.
- Set up an online survey that allows pop-up demonstration participants to record their feedback and offer any insight into its usefulness and if it addressed the intended purpose (safety, speed, increase in users, etc.).

### Evaluate Effectiveness

- Follow up with pop-up demo participants to say thank you and ask for feedback
- Monitor treatments 3-6 months after implementation to determine plan effectiveness and possibly to determine next steps.

Photo: Construction barriers can serve as bike lane protection, as in Atlanta, GA



## Conducting Temporary Pop-Up Demonstrations

Often described as ‘tactical urbanism,’ pop-up demonstrations consist of “low-cost, temporary changes that can transform shared roadways and public spaces into safe corridors and vibrant, activity-oriented destinations.” These collaborative initiatives bring together community members, groups, and public officials to showcase alternative uses for streets, enhance safety, increase ridership, and improve accessibility. Implementing temporary installations can demonstrate the impact these designs can have on motorist behavior (speed in particular), give riders a greater feeling of safety on shared roadways, and allow elected officials and community leaders to “test before you invest.”

Pop-up demonstration projects can:

1. Help exemplify need and lead to faster implementation.
2. Highlight a policy gap or physical design flaw that requires immediate attention.
3. Bring together residents, public officials, and organizations, forming a unique collaborative effort.
4. Create a platform for individuals to speak to their community dynamic and assess needs.
5. Establish a protocol for data collection and retention.
6. Evaluate potential solutions without a significant financial contribution.



Photos:  
**Above** - Members of Liveable Memphis (Memphis, TN) painting a bike lane.

**Left** - garbage cans repurposed as planters function as physical separation and add greenery to the streetscape in Oakland, CA.

**Above Left** - a pop-up mini-circle slows traffic in a residential neighborhood, shown here in Newark, DE.



Photo: A temporary bike lane in Poughkeepsie, NY

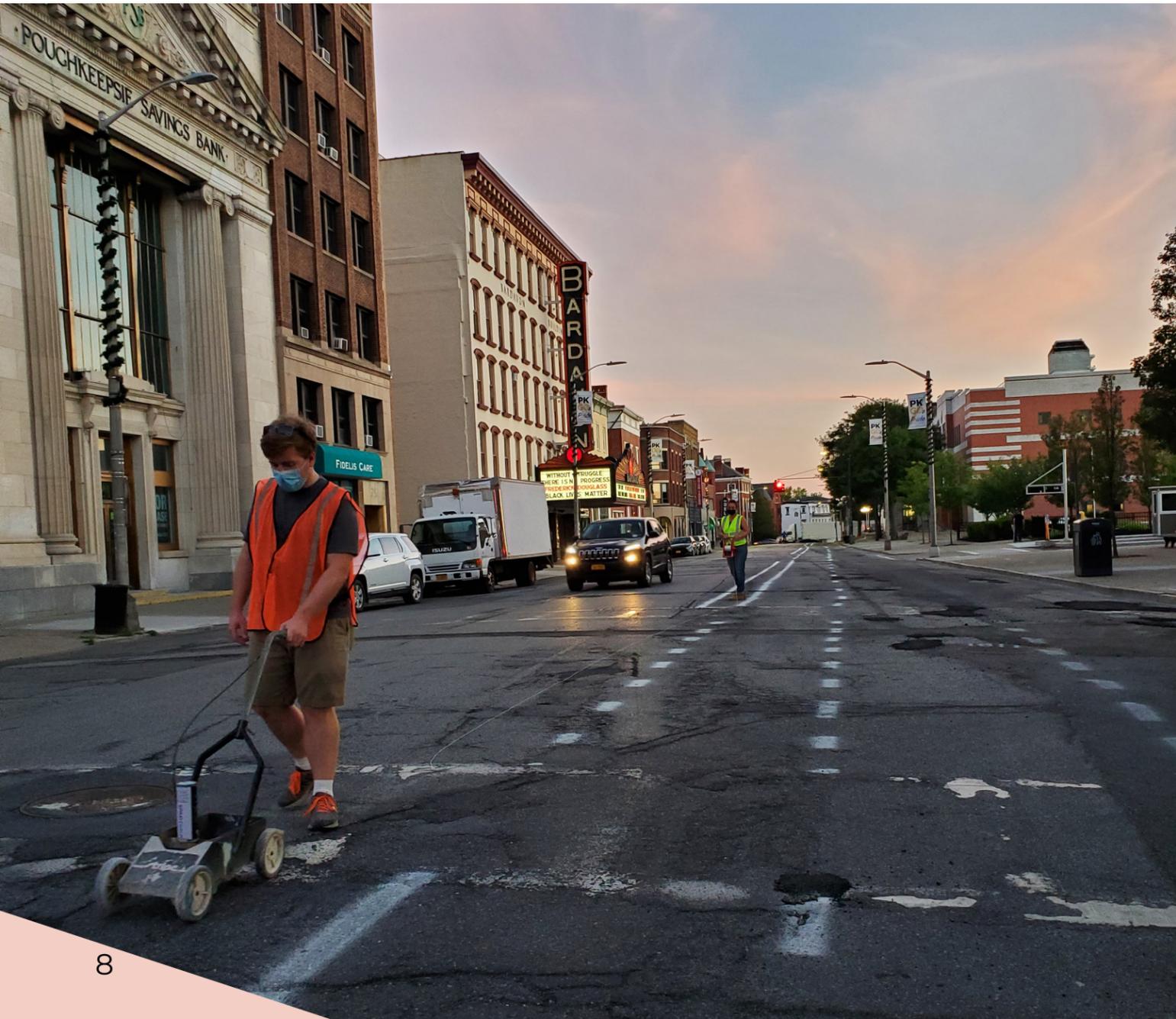
### Pop-Up Demo Project Phases

1. Identify project leaders.
2. Review other “how-to guides” and pop-up demonstration projects for inspiration.
3. Identify possible project constraints.
4. Identify potential funding sources.
5. Create a plan for implementation including: goal(s), scope, communication, design, budget, required permits/insurance, materials, roles/responsibilities for project leaders and participants (outreach, promotion, setup, maintenance, etc.) timeframe/deadlines, measurement/evaluation criteria, break-down plan, data collection.
6. Solicit support from local Departments of Transportation, engineering, or planning staff to ensure design compliance and feasibility.
7. Engage with local stakeholders that can offer a diverse set of skills, come from a range of disciplines, and are interested in volunteering.
8. Secure materials either through a lending service or purchase based on selected intervention. See [Tactical Urbanists Guide To Materials and Design](#) for a detailed description of project materials. Supplies can be organized into the following categories:
  - Barrier elements
  - Surface treatments (paint, chalk, tape)
  - Street Furniture
  - Landscaping features (planters)
  - Signage
9. Create marketing materials to promote temporary demonstration projects and encourage participation from local community.
10. Prior to, and during the demonstration project, collect roadway data (number of cyclists or pedestrians, vehicular speed and volume, etc.) to evaluate effectiveness of intervention.

## Conclusion

Understanding the design, function, and the maintenance required for traffic calming techniques is an important first step in determining which facility can meet the needs of your community. Consider working with a consulting firm, and coordinating with the local Metropolitan Planning Organization (MPO) to design a conceptual plan. The plan can offer a framework for designing a cohesive bicycle network and can help public officials determine feasibility, identify priority locations, and gauge public response. Encourage participation among community groups and neighboring municipalities through a coordinated outreach effort; this outreach can provide insight into community demographics, existing conditions and needs. Designing and implementing any bicycle facility should be divided into manageable parts over a reasonable timeframe; in doing so, a reconfiguration or transformation of a roadway network will provide a roadmap for future developments.

Photo: Installing temporary bike lanes in Poughkeepsie, NY



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- Page 7 - Parks & Trails New York
- Page 8 - Parks & Trails New York



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