

SLOW YOUR STREET

A HOW-TO GUIDE FOR POP-UP TRAFFIC CALMING



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ACKNOWLEDGMENTS

About the Guide

Slow Your Street: A How-To Guide for Pop-Up Traffic Calming was created by Trailnet in 2016 with the support, input, ideas, and inspiration of many individuals, organizations, and institutions. The guide is a toolkit created from the Plan4Health project with the support and guidance of the American Planning Association and American Public Health Association. The project team would like to thank all our community partners and those who offered feedback on the toolkit during development.

Collaborating Organizations

We would like to acknowledge the contributions of the following individuals and organizations that collaborated to make the Plan4Health project possible:

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Faye Paige Edwards (JeffVanderLou)
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Dutchtown Partners:

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JeffVanderLou Partners:

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Tillie's Corner
Dunbar Elementary School

The Ville/Greater Ville Partners:

Danny Colbert (Community Champion)
The Ville Collaborative

About Trailnet

Trailnet is a 501c3 nonprofit in St. Louis, Missouri, and is the region's voice for better biking and walking. Trailnet's mission is to lead in fostering healthy, active, and vibrant communities where walking, bicycling, and the use of public transit are a way of life.
<http://trailnet.org/>

About the Healthy Eating Active Living (HEAL) Partnership

In 2014, the City of St. Louis Department of Health convened community organizations and universities working in health and wellness to form a partnership of over 30 organizations to reduce the rate of obesity within the City of St. Louis through collaboration and strategic partnerships.
<https://www.facebook.com/HEALPartnership/>

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Funding

Funding for this project was provided by the Centers for Disease Control and Prevention (CDC) in partnership with the American Planning Association (APA) and the American Public Health Association (APHA) through the Plan4Health project. These organizations are committed to creating more livable and healthy communities through cross-sector collaboration.

A member of the Partnering4Health national collaborative, Plan4Health works with the American Heart Association; the National WIC Association; Society for Public Health Educators; and Directors of Health Promotion and Education to build and strengthen population-based strategies to support healthier communities.

These partnerships, in turn, complement the CDC's ongoing work to reduce health disparities in communities of color through Racial and Ethnic Approach to Community Health (REACH) and Partnerships to Improve Community Health (PICH) funding opportunities. Together, these initiatives are working to change the environments in which people make decisions about their lives and their health.



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INTRODUCTION

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In the fall of 2015, the Missouri Chapter of the American Planning Association collaborated with Trailnet, the Healthy Eating Active Living (HEAL) Partnership, the City of St. Louis, and community residents to tackle the concern of traffic-related deaths by hosting four pop-up traffic calming demonstrations within the City of St. Louis. These successful demonstrations showcased proven methods of slowing traffic and increasing safety with traffic calming designs. The demonstrations were used to educate community members, elected officials, and city staff on how we can work together to create safer, more vibrant, and healthier communities. These educational events have the potential to influence policy change for better street design.

Further, the demonstrations help visualize safer streets, which can lead to healthier communities and encourage active lifestyles. They are also an opportunity for the community to come together and start a dialogue on how we can work together to improve our street designs.



Like most U.S. cities, the City of St. Louis' streets largely accommodate people who drive, making our city less pleasant and less safe for people on foot. In the U.S. 12 percent of fatal traffic crashes involve people who were walking. In the City of St. Louis that figure is 36 percent. In 2015, 21 pedestrians were killed in the City of St. Louis. In fact, more pedestrians were killed in 2015 than in 2013 and 2014 combined, and it is the most recorded number of fatalities in the last 30 years. These sobering statistics earned St. Louis a designation as a Focus City by the National Highway Traffic Safety Administration, joining 16 other U.S. cities in which pedestrian and bicycle deaths are higher than the national average.

These crashes are, in part, a consequence of wide streets originally designed to accommodate street cars. For example, some residential streets in St. Louis are as wide as 65 feet, which is enough to fit five highway lanes. Wide lanes encourage excessive speeding and put people who walk in danger. Moreover, high-traffic, high-speed streets without proper infrastructure create boundaries that effectively turn neighborhoods into "islands" for people walking. For households that do not have any cars, high-stress streets limit access to important amenities, such as parks and schools.

In the U.S. 12 percent of fatal traffic crashes involve people walking. In St. Louis that figure is 36 percent. In 2015, 21 pedestrians were killed in the City of St. Louis.



SETTING UP A MINI-ROUNDBOUT ON DEMONSTRATION DAY

Failing to design streets to accommodate people who walk and bike discourages active modes of transportation and leads to a decline in public health. Retrofitting our existing streets to slow the speed of cars while creating more space for people and for greenery is a relatively easy way for us to return to a city of streets where people love to be. Traffic calming or street design that slows cars to safe and comfortable speeds for those walking and biking can help people driving to follow the speed limit. This can include extending the curb at intersections, reducing or narrowing traffic lanes, or adding gentle speed humps on streets. The appropriate design on the appropriate street can help us return to city streets that are built for walking, playing, and catching up with our neighbors.

This guide was developed to share experiences and provide resources and tools for anyone interested in implementing their own traffic calming demonstration. Individuals who use this guide will be empowered to implement their own pop-up traffic calming demonstration to help create safer streets in their neighborhoods for people using all modes of transportation.



FLOWERS TO BEAUTIFY TRAFFIC CALMING DEMONSTRATION

To view Trailnet's traffic calming demonstrations, visit the following links:

Promotional Video:

<https://www.youtube.com/watch?v=N9rT9GOAWjY>

Extended Cut:

https://www.youtube.com/watch?v=Vetz_ iy9xug

BENEFITS OF POP-UP DEMONSTRATIONS

Pop-up traffic calming—a form of tactical urbanism, placemaking, and the “lighter, quicker, cheaper” method—is a way to use low-cost, short-term solutions to have a large impact on communities. Pop-up traffic calming demonstrations offer temporary and creative solutions that change the built environment by adding relatively low-cost items such as traffic cones, planters, and paint. These projects are a unique approach to community engagement and can

help residents test ideas and re-imagine their neighborhoods by prioritizing safe and pleasant streets over moving traffic.

Pop-up traffic calming demonstrations are a tool being used to reinvigorate the discussion on building better communities. Traffic calming demonstrations are tools for allowing neighborhoods to take ownership of their public spaces and explore their visions for safer and more joyful streets.

These temporary solutions have the power to bring together various stakeholders within the community and catalyze their efforts to create healthier and more active communities. Traffic calming demonstrations create buy-in for permanent projects, by facilitating discussions that begin from the bottom up instead of the top down.



SETTING UP TRAFFIC CALMING DEMONSTRATION

HOW TRAFFIC CALMING AFFECTS HEALTH

The number of people choosing to bike and walk for transportation has been increasing steadily for decades. More individuals are choosing to live in higher-density areas that allow them to travel comfortably in safe and pleasant neighborhoods. Cities that invest in safer streets experience a high return on investment.

However, in the City of St. Louis, streets are not designed to comfortably allow people to walk or bike to their destinations. It could be argued the lack of support for biking and walking, and the lack of access to amenities for those who would choose active modes of transportation, has led to a number of health challenges.

When getting to the park is dangerous or unpleasant, people are less likely to use it. In this way, streets can become a barrier to physical activity, and lead to sedentary lifestyles. While 80 percent of the City of St. Louis' residents live within a half-mile of a public park, 27 percent report no leisure time or physical activity. Poor pedestrian access has been linked to lower park use and can lead to inactive lifestyles,

which are linked to weight gain. Nearly 60 percent of adults in the City of St. Louis are overweight or obese.

Further, lack of physical activity is linked to higher risks of high blood pressure, coronary heart disease, stroke, cancer, and diabetes. In 2012, the rate of diabetes-related hospitalizations was 35.7 per 10,000 for residents in the City of St. Louis, which is nearly twice the rate for the state of Missouri. In the same year, diabetes-related deaths in the city were 40 percent higher than the state's rate. In addition, out of the 115 counties in Missouri, the City of St. Louis ranks in the bottom quartile for length of life (108th), quality of life (107th), and health

behaviors (111th).

However, all is not lost. Trailnet conducted a constituent survey in 2015 and found that 75 percent of respondents felt they would bike more with protected bike lanes. Further Trailnet found from the demonstrations that community members are ready and excited for changes in designing safer streets for people walking and biking.

With appropriate traffic calming features in place, we can increase the rate of those engaging in active transportation, thereby increasing the overall health of our communities and our region. Making adjustments to our street design can drastically improve public health in the region. If we can dedicate resources to better street design, we can create environments in which physical activity opportunities are increased and people are encouraged to live more active, healthy lifestyles.

This project is an example of how the City of St. Louis can work together to promote a better built environment.

If 10% of adults began walking on a regular basis, \$5.6 Billion in heart disease costs would be averted.

Source: American Public Health Association

HOW TO USE THIS GUIDE

The *Slow Your Street: A How-To Guide for Pop-Up Traffic Calming* offers step-by-step support on how to implement a successful pop-up traffic calming demonstration. Pop-ups for this toolkit are defined as temporary one-day installations that last 6-12 hours. While this guide was developed for use in the City of St. Louis, all the tools and advice provided can be applied to any community.

Trailnet developed this toolkit for those interested in designing their own pop-up traffic calming demonstrations within their communities. The guide is meant for those who have never tried anything like this before, while more experienced traffic calmers may find the check lists and appendices useful in organizing their work.

The guide can be used in any order that is helpful for an individual to complete a pop-up traffic calming demonstration. The guide can be read out of order if familiar with a particular section.

Trailnet created this toolkit to help communities make change possible in their neighborhoods.



TRAILNET STAFF ON DEMONSTRATION DAY



TRAILNET TECHNICAL ASSISTANCE




Trailnet has a dynamic team that can offer technical assistance in implementing a successful pop-up traffic calming demonstrations.

To further discuss Trailnet's technical assistance options, please contact Trailnet at planning@trailnet.org.

SERVICES:

Cost estimates will vary and depend on the following:

- Community outreach assistance
 - Site planning
 - Meeting with city and obtaining permits
 - Designing and creating site plans
 - Demonstration implementation
 - Type and size of demonstration
 - Length of demonstrations
 - Data collection and analysis
 - Lending library equipment (non-profit rate available)
 - Transportation assistance
 - Grant opportunities
- 

PLANNING PROCESS

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Beginning with a strong planning process will cement the foundation for a successful event. The planning process section reviews steps to consider while planning a traffic calming demonstration to maximize community engagement and to empower individuals through education on safer street designs.



THE NEW
TRAINET TENT

DEFINING SUCCESS

One of the first tasks to consider when planning a traffic calming demonstration is determining and defining success. Defining success will be dependent on understanding the goals and objectives of the project. Is it to help shape policy? Empower community members to advocate for better capital improvements in their neighborhoods? Re-imagine how to make our public spaces more vibrant?

Success Takes Time

Trailnet created this toolkit to help communities make change possible in their neighborhoods. This toolkit is designed for anyone to

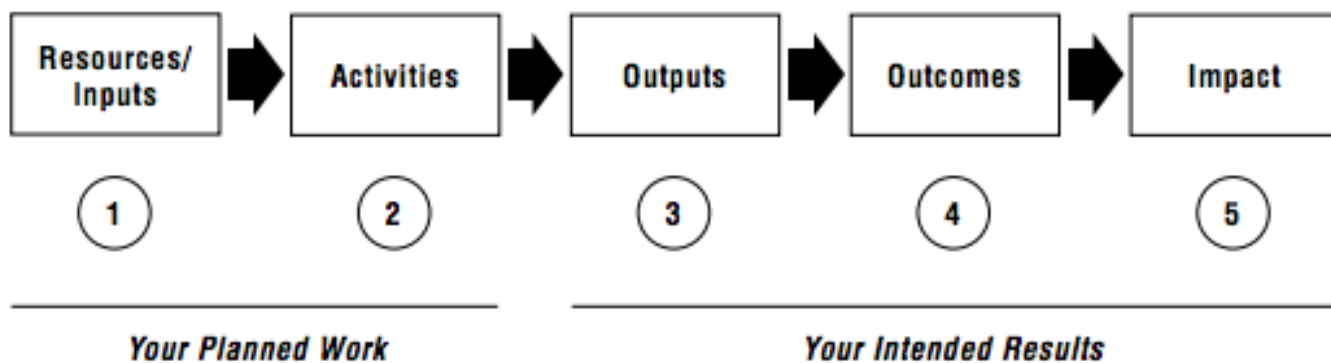
use—no matter what their background is—to implement a pop-up traffic calming demonstration. The planning process to create a traffic calming demonstration will vary per demonstration. The key to success is persistency and an understanding that change takes time and each neighborhood has different traffic calming needs.

Logic Models

There are various ways to establish how to measure and track the success of a project. Logic models are a program and evaluation planning tool to assist in creating a framework in understanding why a

proposed strategy is effective. They help understand a program's resources, sequence of intended activities, the product of activities, and where to focus outcome and evaluations.

The basic components of a logic model are inputs, activities, and outcomes. Inputs are resources available to help the program. Activities are processes and actions that outline what happens during the program. Outcomes are direct results and what is hoped to be achieved over time. Logic models have been proven to be a successful tool



SOURCE: W.K. KELLOGG FOUNDATION

for program management¹.

Logic models can be further expanded to include outputs, short-term/intermediate/long-term outcomes, and impacts. To learn more about how to develop one's own logic model, the W.K. Kellogg Foundation created a logic model development guide².

Trailnet's Example of Defining Success

Trailnet identified success for the pop-up demonstrations by establishing goals and objectives, identifying problems, and noting why traffic calming is a proposed solution. Once these were established, Trailnet created a logic model to evaluate how to achieve the proposed outcomes and impacts.

The logic model allowed Trailnet to determine what activities are important to achieve the outputs and outcomes desired. Trailnet found the logic model valuable in determining the best way to engage the community and create successful pop-up demonstrations.

The figures on the next page give an example of a logic model Trailnet used to prepare for their traffic calming demonstrations.



TRAILNET STAFF PREPARING ON A DEMONSTRATION DAY

1 <http://www.acf.hhs.gov/sites/default/files/fysb/prep-logic-model-ts.pdf>

2 <http://www.smartgivers.org/uploads/logicmodelguidepdf.pdf>

Example Logic Model

Logic Model for APA/APHA

Goal: Increase access to parks and healthy food choices

Objectives:

- Build capacity for St. Louis City HEAL coalition and community members at large to identify barriers to walking to local parks and grocery stores
- Provide pop-up examples of effective traffic calming design, building buy-in for permanent installation
- Work with City of St. Louis and coalition members to develop an official process for identifying the need for traffic calming, the planning process, and implementation of design changes

Problems:

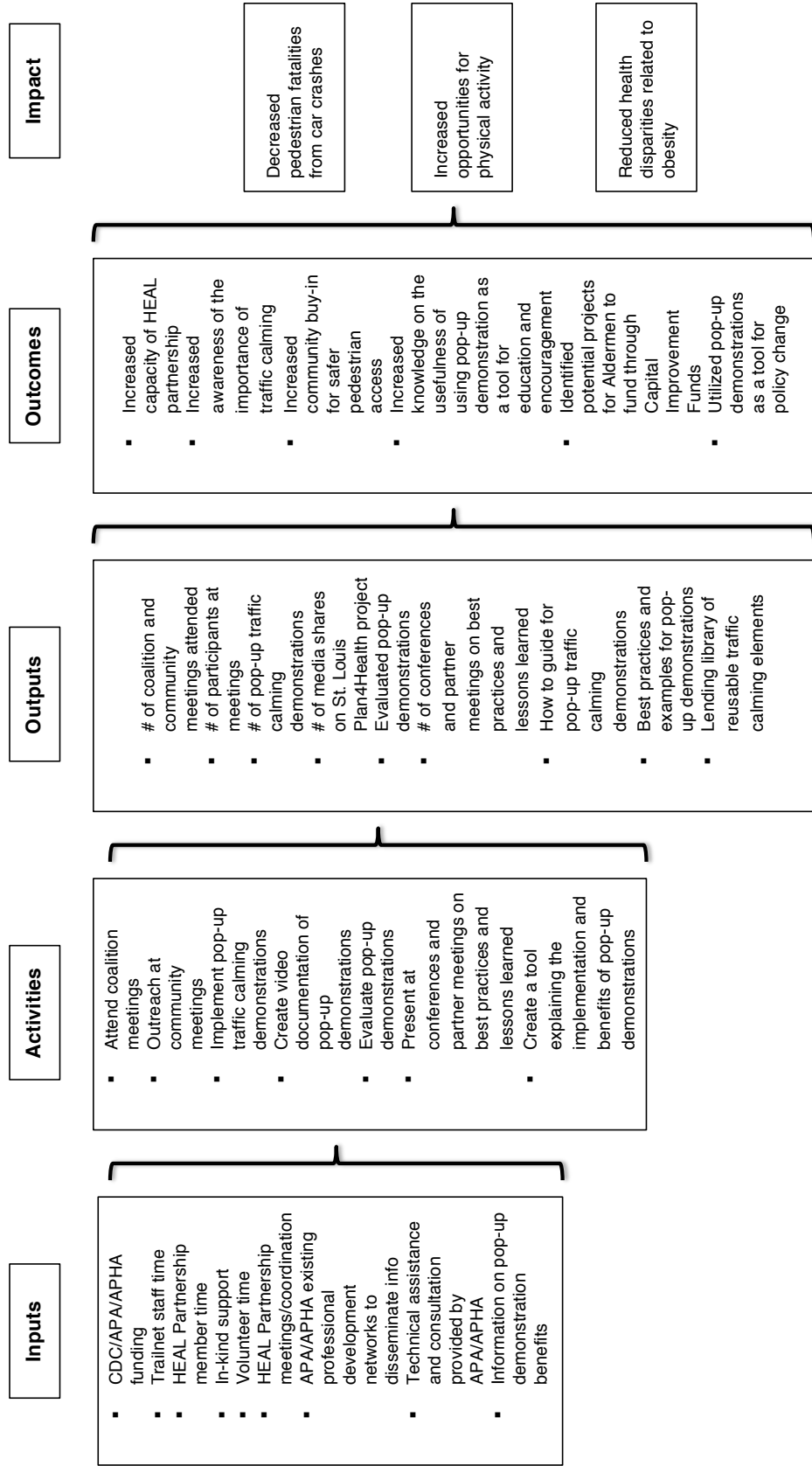
- Safe pedestrian connections to parks and healthy food choices are limited
- Policy barriers and misconceptions exist, limiting potential for street design (i.e. many believe vertical traffic calming is illegal)
- Lack of official process to develop and install traffic calming solutions in City of St. Louis

Why:

- High speed, high volume, car-centered design makes walking/biking to destinations unsafe
- Few examples in City of St. Louis of successful traffic calming
- Current street design prioritizes moving cars over people

Why traffic calming, why now: Great success implementing pop-up pedestrian plaza in Kirkwood. After just four hours on a Saturday with temporary traffic-calming by the farmer's market, city officials and community members realized traffic calming was not only needed, but pleasant and enjoyable for residents. This funding opportunity allows us to disseminate this model as a way to generate community buy-in at both the municipal and resident level.

Example Logic Model



PLANNING STEPS

Before identifying the demonstration date, it is important to define success and follow these initial planning steps. Key questions to ask in the beginning are:

1 What is the purpose of the pop-up traffic calming demonstration?

Defining success and developing a logic model will help the thought process of why using pop-up demonstrations would be a successful tool to achieve the desired outcome or impact.

Pop-up demonstrations are valuable tools to creatively engage community members.

2 How will you identify which site location to implement the pop-up traffic calming demonstration?

Some things to consider are street width, traffic flow, traffic fatalities, traffic crashes, and the purpose of the street.

Community and city stakeholder input should be a priority when selecting a site location and neighborhood residents should be engaged.

More information can be found in *Site Plans: Site Selection* - pg. 52.

3 Who are the primary stakeholders to work with in the city to gain necessary permits and approve the site location and plan?

For the City of St. Louis, individuals will need to contact the Street Department and the Board of Public Service to obtain permits and approval to implement the pop-up traffic calming demonstration. More information can be found in *Planning Process: Stakeholders* - pg. 18.

An estimated timeline for planning the demonstration is 3 to 6 months depending on how long it takes to obtain necessary approval from the city and perform outreach to the neighborhood.

Each demonstration is unique and some steps may take longer than others. It is important to budget an adequate amount of time toward planning.

4 Who are the primary community stakeholders to include in selecting the site location and site plan?

Neighborhood organizations within the desired site location should be included to determine the specific streets and site plan for the traffic calming demonstration.

Neighborhood advocates, such as neighborhood block captains, should be included once a site location has been chosen. More information can be found in *Planning Process: Stakeholders* - pg. 20.

5 What type of traffic calming design should be implemented at the site location?

More information can be found in *Site Plans* - pg. 49.

6 What data is available to support the site location chosen for the demonstration?

e.g. crash data, access to grocery stores/parks/schools, traffic speeds.

More information can be found in *Site Plans: Site Selection* - pg. 52.

7 Who will design the site plan?

For the City of St. Louis, site plans drawn to scale, with dimensions, angles, and distances noted, must be approved by the Street Department and the Board of Public Service. Site plans can be produced using software such as Microsoft Visio.

More information can be found in *Site Plans* - pg. 49.

8 When will the demonstration take place?

What time will you set it up and take it down?
Should there be a contingency plan for bad weather?
Will there be enough daylight for setup and take-down?
Will there be heavy traffic?
When does rush hour occur?
Will the traffic calming design work during rush hour?
Will children be present? If so, what added precautions will be added?

9 **Will parking spaces need to be removed during the demonstration?**

If so, where will “No Parking” signs be placed?

If so, is there a plan to educate and inform stakeholder representatives about why parking spots are being removed?

10 **Will there be any other neighborhood events that might impact the demonstration?**

e.g. block parties, church events, community events, festivals

11 **What type of outreach is needed to implement the demonstration?**

Are there objectives established to ensure the target audience is reached?

Who needs to be informed?

- e.g. residents, schools, businesses, churches

More information can be found in *Community Engagement* - pg. 33.

12 **How will you best inform the neighborhood around the site location about the upcoming demonstration?**

13 **Will there need to be volunteers to help implement the traffic calming demonstration?**

More information can be found in *Demonstration Day: Volunteer Management* - pg. 96.

14 **Is there a plan to ensure safety of volunteers?**

e.g. plan for safely setting up demonstration materials in street

More information can be found in *Demonstration Day: Safety Tips and Reminders* - pg. 97.

An estimated timeline for planning the demonstration is three to six months depending on how long it takes to obtain necessary approval from the city and perform outreach to the neighborhood that will be affected by the demonstration.

Trailnet has a dynamic team that can offer technical assistance in implementing a successful pop-up traffic calming demonstrations.

To further discuss Trailnet’s technical assistance options, please contact Trailnet at planning@trailnet.org.

STAKEHOLDERS

In the beginning of the planning process, determine your role within the community and identify stakeholders to partner with. The list of stakeholders in this chapter is specific to St. Louis, and may be different in your community. Stakeholders should be brought in on the early stages of the planning process as well as during execution and evaluation.

City Stakeholders

Mayor's Office – The Mayor's Office should be contacted to inform the Mayor and Mayor's staff of the upcoming traffic calming demonstration. This is an opportunity to invite them to participate at the event and to learn more about how to create safer streets for people walking and biking. Mayors have the power to enforce or revoke ordinances and are the highest-ranking official in a city or town's government. (<https://www.stlouis-mo.gov/government/departments/mayor/profiles/>)

Elected Officials – Elected officials are the legislative body and are responsible for the passage of ordinances, including the annual budget. In the City of St. Louis, there are 28 aldermen that make up the Board of Aldermen. (<https://www.stlouis-mo.gov/government/departments/aldermen/>)

Board of Public Service (BPS)/Public Works – BPS is responsible for all public works and improvements undertaken by the City. The Secretary's Office issues permits on behalf of the Board of Public Service. For the City of St. Louis, individuals should contact the Planning and Programming department while developing site plans and obtaining necessary permits. (<https://www.stlouis-mo.gov/government/departments/public-service/>)



TRAILNET STAFF, CITY STAFF, AND ELECTED OFFICIAL DISCUSSING TRAFFIC CALMING

**Street Department/
Public Works** – The Street Department oversees the streets and traffic divisions and issues permits from the Director’s office. For the City of St. Louis, the Street Department collaboration is needed in order to obtain permits and approval of site plans for traffic calming demonstrations. A blocking permit will be needed for the demonstrations. (<https://www.stlouis-mo.gov/government/departments/street/street-permits-application.cfm>)

Neighborhood Improvement Specialist (NIS) – In the City of St. Louis, the NIS’s role is to identify and address issues within the neighborhood. They are one of the main liaisons to the community for aldermen, neighborhood organizations, citizens, police, and city operating departments. NIS work as problem solvers and communicators in their assigned areas. (<https://www.stlouis-mo.gov/government/departments/public-safety/neighborhood-stabilization-office/profiles/index.cfm>)

City Partnerships – If there are city partnerships that can provide resources to the traffic calming demonstration, they should be contacted. In St. Louis, the HEAL Partnership is a resourceful coalition that can be valuable to partner with in creating a healthier city by focusing on healthy eating and active living. (<https://www.facebook.com/HEALPartnership/>)

City Fire and Police Department – Fire departments should be contacted and requested to drive their emergency vehicles through the traffic calming demonstrations. Fire and police departments offer a unique perspective in what type of traffic calming they would like to see and how streets are important to keep accessible for their vehicles. It is important to work with them to not impede emergency vehicle response time. For the City of St. Louis, organizers can contact fire and police right before the demonstration.



COMMUNITY LEADERS PLANNING FOR TRAFFIC CALMING DEMONSTRATION

Community Stakeholders

Neighborhood Organizations –

Neighborhood organizations or community groups are local partners to reach out to before implementing the traffic calming demonstration. These organizations can help with volunteer recruitment, outreach, and creating discussions with community residents on what type of changes they would like to see in their neighborhoods.

Neighborhood Leaders and Advocates –

Neighborhood leaders and advocates are key community stakeholders to recruit early on in the process because they have resources and connections within the community. These leaders, for example, may come from faith-based institutions, neighborhood organizations, local community activities, and/or block captains. Neighborhood leaders are key decisions-makers for the neighborhood and, when possible, should be recruited to become a community champion for the area.

Community Champions –

Community champions are individuals identified in the community that play a large role in the area and are well connected to community members within the neighborhood. More information on



CITY OF ST. LOUIS BICYCLE AND PEDESTRIAN COORDINATOR, JAMIE WILSON, CITY OF ST. LOUIS MAYOR FRANCIS G. SLAY, AND NEIGHBORHOOD LEADER, CARLA ALEXANDER

community champions is in *Planning Process: Community Champions* - pg. 23.

Businesses – Local businesses in the neighborhood should be contacted to gather further input for planning the demonstrations. Businesses should have buy-in in the proposed traffic calming changes to the community.

Neighborhood Block Captains –

Neighborhood block captains within communities have close ties with community members within the area and work with the neighborhood's elected official. Block captains should be identified to raise awareness of the traffic calming demonstrations.

Schools – If traffic calming demonstrations are occurring near schools, school principals

and other school stakeholders should be invited. Working in partnership with schools offers the opportunity to teach children about safer streets and to learn what types of changes they would like to see in their community to help them walk or bike to school. Also, school buses should be encouraged to drive through demonstrations to see if bus drivers understand and are comfortable with the proposed changes.

There are many other community stakeholders to include throughout the demonstrations. Before beginning outlining plans for the demonstration location, individuals should brainstorm about who would be the best city and community stakeholders to include throughout the process to improve the reach and impact of the demonstrations.

COMMUNITY OUTREACH

Each community outreach process will be different and dependent on the needs and resources of the community. The following are steps Trailnet has found helpful in its community engagement. Some steps may take longer than others and community outreach meetings may need to occur more than once to effectively reach out to the neighborhoods for equitable representation. The goal of the community outreach meetings is to value everyone's input and decide as a group what the next best steps are for implementing the traffic calming demonstrations.

For more information on community outreach, please reference *Community Engagement* - pg. 33.



TRAILNET STAFF INSTALLING A TEMPORARY CROSSWALK

1 Who to reach out to

The first step in community outreach is to identify key city and community stakeholders to reach out to. Community stakeholders are especially important because the main objective should be to create a diverse network of stakeholders to educate and bring into the project. Creating a solid foundation from effective community outreach will give the demonstrations a strong start to succeed.

2 Leading community outreach meetings

Meeting organizers should distinguish the purpose of the community outreach meeting as well as the objectives of the meeting. Depending on the size of the community outreach meeting, organizers should determine what type of time frame they have to present to the group. While leading the meeting, organizers should be prepared to take notes or assign someone to take notes during the meeting. Organizers should be careful during the meeting to give space for everyone to express their opinion, while moving the discussion along for a productive meeting.

There are many facilitation trainings and plenty of advice on the topic online, but Trailnet's favorite resource is *The Skilled Facilitator* by Roger Schwarz. The purpose of *The Skilled Facilitator* is to provide helpful resources and tips on facilitation techniques to anyone that is guiding a group discussion. The book includes information on simple but effective ground rules to offer solutions on handling emotions and how to use those emotions to identify and solve problems.

3 Creating an agenda

Agendas will help the meeting move smoothly and keep things organized. The participants in the meeting will know what to expect and make better contributions. The agenda on the next page is a template for individuals to use.

[Neighborhood Name]

Traffic Calming Demonstration Planning Committee Meeting

Date: [Meeting Date, Time, Location]

Objectives:

- 1) Participants will understand the purpose of the pop-up traffic calming demonstration.
- 2) Participants will be able to identify ways street design and how built environment impacts safe walking.
- 3) Participants will identify next steps for potential short-term and long-term projects to improve walkability.

Agenda:

- I. Introductions
- II. Pop-up traffic calming demonstration introduction
 - a. What is it?
 - b. Best Practices
 - c. Health benefits
 - d. Safety benefits
- III. Walk audit
- IV. Discuss potential improvements from audit
- V. Assign action items

Next Meeting: [Meeting Date, Time, Location]

Notes:

4 During the Meeting

During the meeting, organizers should be prepared to lead the meeting and aid in moving the meeting along smoothly. The purpose of the meeting is to gain understanding of community needs and concerns for the neighborhood. From the meeting, organizers will determine the next best steps in selecting a location for the demonstration.

5 Follow Up

Before the end of the meeting, organizers should determine when to hold the next meeting and share next steps. Organizers should keep attendees updated as next steps are accomplished. Sign in sheets will be helpful tools to gather names, phone numbers, and emails of individuals at the meeting for future follow-up.

COMMUNITY CHAMPIONS



ALDERWOMAN CARA SPENCER, TRAILNET STAFF, AND COMMUNITY CHAMPION, WENDY CAMPBELL

For groups that have funding to host a traffic calming demonstration, paid Community Champions should be considered. Community Champions receive a stipend for their work within the community to raise awareness of the traffic calming demonstrations. Community champions are individuals who are actively involved within the neighborhood and are dedicated to creating safer streets for all modes of transportation.

The community champions' main responsibilities are to help plan and execute the traffic calming demonstrations,

assist the project manager in designing community outreach activities, lead implementation of community outreach, and review communication materials for the neighborhood. They are a large asset in improving community engagement and representing the interest of the neighborhood. They can help gain support for demonstrations by addressing community member concerns directly and helping focus the community on project goals and objectives.

Community champions, if needed, should be trained on safety, complete streets, traffic

calming, and the purpose, goals, and objectives of the project to provide the same messaging about the project to the public.

Community champions should be recruited through neighborhood organizations and block captains. Elected officials who are heavily involved in the community could help to identify possible community champions.

SITE SELECTION

KEY PRINCIPLES

Purpose of Demonstration

Creating goals and defining success of the pop-up demonstrations will aid in determining the objectives, such as which modes of travel to engage during the demonstration.

Purpose of Street

The purpose of the street will help the site planning for the demonstration because residential streets and commercial streets serve different purposes for the community.

Ownership of Street and Existing Code

Determining the ownership of the street will aid in planning which stakeholders to involve (e.g. city, township, state). Existing code allows organizers to identify if there are initial barriers for the demonstration.

Parking

Existing parking spots to be taken for the demonstration should be carefully selected and the residents who will be affected by the change in parking should be notified of the changes.

Street Width

Street Width could play a large role in deciding which type of traffic calming demonstration options are available to implement.

Example: If the street is 30 feet wide with existing parking, it could be difficult to use traffic calming measures that narrow the street or make drivers veer slightly to slow down.

Speed Limit

Clarifying the speed limit for the location and gathering the average speed of people driving will help decide what type of demonstration is needed. The speed of people driving is affected by street design. If a street is wider than usual without any barriers, people will be inclined to drive faster.

Traffic Flow

Determining the average traffic flow for the neighborhood will aid in identifying what type of traffic calming measure to demonstrate.

Crash Data

Information on understanding causes of crashes could be beneficial in determining what type of demonstration would be most useful for the neighborhood.

Accessibility to neighborhood destinations, including:

- Transit stops
- Grocery Stores
- Schools
- Community Resource Centers
- Parks
- Churches

Walk Audits

Walk audits are an optional tool to use when researching which area would be best to implement a traffic calming demonstration. Walk audits are guided walking tours to evaluate how the built environment affects communities and their health.

Information on walk audits can be found in *Appendix* - pg. 118-121.

DESIGNING SITE PLANS

Who needs to approve?

Individuals who are decision makers on transportation projects for the city, typically public works and planning departments, should approve site plans. For the City of St. Louis, organizers for a demonstration should work with the Board of Public Service and the Street Department. The entities will review site plans and grant permits once site plans are approved. The type of permit in the City of St. Louis to request is a Blocking Right of Way Permit. For information on permits go to: <https://www.stlouis-mo.gov/government/departments/street/streets-sidewalks-traffic/permits-inspections/index.cfm>

Site Plans

Site plans give an overview of the traffic calming demonstration and are an effective tool to communicate to others how the street will be redesigned. Site plans should include an overview of traffic calming measures, materials to use for the traffic calming demonstration, and sign placement details. Parking, no-outlet streets, one-way streets, and any other helpful information about the existing streets should be added to the site plan.

For the City of St. Louis, precise and clear site plans will need to be drawn to scale, including precise dimensions of streets and suggested traffic calming designs. The easiest way to do this is through software such as Microsoft Visio. Trailnet is available to provide technical assistance in aiding communities to develop site plans, if needed.

More information on how to create site plans can be found in *Site Plans* - pg. 49.

Precise and clear site plans will need to be drawn to scale, including precise dimensions of streets and suggested traffic calming designs. The easiest way to do this is through software such as Microsoft Visio.

TRAFFIC CALMING LENDING LIBRARY

The lending library makes equipment accessible so leaders in the community can implement their own traffic calming demonstration.



PAINTED TIRES TO BE USED ON DEMONSTRATION DAY

Trailnet has developed a traffic calming lending library that is available for use to borrow for demonstrations. The purpose of the lending library is to have accessible equipment so leaders in the community can implement their own traffic calming demonstration. Trailnet's goal for the lending library is to create an open resource that will help educate people on safer street designs for all modes of transportation.

More information on the traffic calming lending library can be found in *Traffic Calming Lending Library* - pg. 77.



VOLUNTEERS INSTALLING TEMPORARY CROSSWALK

VOLUNTEERS



TRAILNET STAFF, COMMUNITY CHAMPION, DANNY COLBERT, AND COMMUNITY VOLUNTEERS AT DEMONSTRATION DAY

Volunteers should be recruited if there are not enough organizers to help implement the demonstration. Volunteers will help the demonstrations run smoothly and offer extra assistance in setting up and taking down on event day. Further, volunteers are helpful during the demonstration to assist with other tasks organizers may need assistance with.

Volunteers should be recruited within the community by

asking for assistance through community partners and any other stakeholders that are interested in helping with the demonstration. Local universities, such as St. Louis University and Washington University in St. Louis, could have an interest as well in the demonstration. It is possible to partner with university classes, student organizations, and students to implement the traffic calming demonstrations.

Volunteers will need to be trained on how to setup and/or break down demonstration materials, understand safety tips, and understand the purpose of project goals and objectives to provide the same messaging about the project to the public.

For more information on the number of volunteers to recruit or how to gather volunteer sign ups, see *Demonstration Day: Volunteer Management* - pg. 96.

TRAFFIC CALMING DEMONSTRATION CHECKLIST

The Traffic Calming Demonstration Checklist includes the procedures that need to be completed to implement a traffic calming demonstration.

Task – Guidelines on how to develop a pop-up traffic calming demonstration.

Output/Measure – How will the outcome of the task be measured?

Completion Date – Determine the due date for task.

Person Responsible – Who is in charge of completing the task?



VOLUNTEERS AT THE POP UP TRAFFIC CALMING DEMONSTRATION

Determine Purpose of Event

Task	Output/Measure	Completion Date	Person Responsible
Determine goals/objectives of traffic calming demonstration			
Create logic model to determine desired outputs and outcomes			
Identify key city stakeholders			
Identify key community stakeholders			

Community Outreach

Task	Output/Measure	Completion Date	Person Responsible
Reach out to community stakeholders about proposed traffic calming project			
Identify community champions			

Traffic Calming Demonstration Logistics

Task	Output/Measure	Completion Date	Person Responsible
Determine planning process for traffic calming demonstration			
Choose traffic calming demonstration site location			
Determine who owns the streets for demonstration site location			
Determine time and date of traffic calming demonstration			
Design site plan for traffic calming demonstration			
Discuss resources for materials – including Trailnet traffic calming lending library, donations, purchases			
Obtain permits to implement the traffic calming demonstration			
Determine how many volunteers will be needed for demonstration			
Review Materials Checklist			
Determine strategy for media/marketing traffic calming demonstration			
Revisit project goals/objectives to assure demonstrations are achieving desired outcomes			

MATERIALS CHECKLIST

Trailnet created a materials checklist that can be used as a list for organizers to prepare for a pop-up traffic calming demonstrations. The materials checklist has information on equipment availability, tabling materials, and tasks to be completed before a demonstration. The materials in the checklist are specific to items available in Trailnet's lending library materials.

Materials

- Chalkboard & Whiteboard Easel
- Bistro Chairs
- Bistro Tables
- Small Table
- Brooms
- Buckets
- Bulletin Board
- Bungee Chairs
- Butcher Paper
- Canopy Tent
- Chalk
- Chalk Line
- Cones
- Connect 4
- Fake Fig Trees
- Fake Flowers
- Fake Grass
- Fake Mini-Plants
- Fake Tree
- First Aid Kit
- Folding Table
- Lawn Signs pointing to traffic calming
- Liquid Chalk
- Measuring Tape
- Measuring Wheels
- Manual on Uniform Traffic Control Devices (MUTCD) Signs
 - Roundabout
 - Chicanes
 - Speed (15 mph)
 - Bump Sign
- Paint Brushes
- Paint Rollers
- Rags
- Roofing Tar Paper
- Scissors
- Scrap Paper
- Sign Clamps
- Sign Stands
- Speed Guns
- Tempera Paint
- Tires
- Tool Box
- Trash Bags
- Umbrella Bases
- Umbrellas
- Utility Knife
- Safety Reflective Vests
- Wayfinding Signs
- White Duct Tape
- Work Gloves

Tabling Materials

- Site Plans
- Half Page flyer about demonstration
- Traffic Calming One Pager
- Traffic Calming FAQ
- Traffic Calming Tools
- Surveys
- Snacks/Drinks
- Clipboards
- Pens
- Sharpie/Markers
- Binder Clips
- Table Cloth
- Easel
- Comment Cards
- Folding Table

Task List

- Putting up “No Parking” signs 48 hours before demonstration
- Email volunteers itinerary and reminder
- Request donation of live trees or plants
- Check in with community partners
- Obtain copy of permit
- Notify/invite police department to demonstration
- Notify/invite fire department to demonstration
- Notify/invite school/businesses to demonstration
- Send out press release to media

Note

- Not all materials will be needed for each demonstration.
- Trailnet has a library of over 600 materials for individuals to use during demonstrations.
- To learn about the quantity of each of these items, please refer to *Lending Library Checklist* - pg. 79-82.
- For any additional questions, please contact Trailnet at planning@trailnet.org.



VOLUNTEERS AT THE TRAFFIC CALMING DEMONSTRATION



COMMUNITY ENGAGEMENT

- 35 Why Engage the Community?
 - 37 Community Engagement Checklist
 - 40 Public Outreach Resources
 - 48 Community Engagement Resources
-

Streets are for all people regardless of race, class, income, ability, or age. Streets are also used for a number of different purposes such as walking, biking, and driving. Streets provide transportation opportunities for people every day, so community engagement is a powerful tool to use in implementing pop-up demonstrations. To create a successful change toward safer street designs, individuals who live within the communities should be educated and involved in the decision-making process.



WHY ENGAGE THE COMMUNITY?



VOLUNTEERS AND TRAILNET STAFF AT THE TRAFFIC CALMING DEMONSTRATION

Pop-up traffic calming demonstrations should be used as a tool for education and encouragement. Demonstration projects can use inventive strategies to engage the public in planning opportunities for safer street design. Studies have shown that the best way to educate around policy is through well-executed community engagement. Projects that focus on connecting community members with educational resources have shown an increase in social capital for community members and an increased interest in investing in their community's well-being¹.

¹ http://www.knightfoundation.org/media/uploads/publication_pdfs/BrightSpots-final.pdf

The major themes of why it is important to engage the community are:

Education

Teaching community members about traffic calming opens opportunities for residents to learn how to problem solve and communicate with city staff and elected officials about the neighborhood's needs for safer streets.

Empowerment

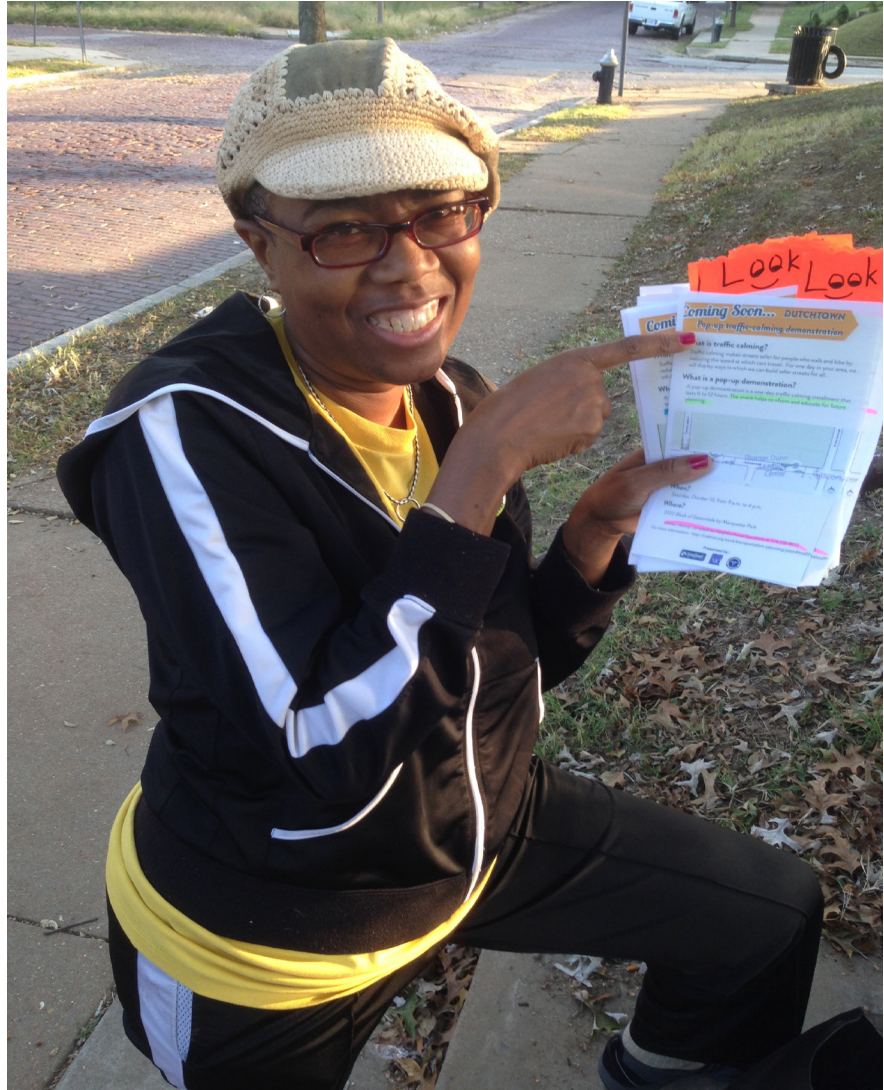
Empowering residents early on during the community engagement process will aid in establishing what type of demonstration would be most beneficial for the community.

Support

Community buy-in is key because the demonstration that will directly affect the neighborhood residents.

Capacity Building

Engaging the community will increase capacity within the neighborhood to help residents push for policy change to benefit the community.



COMMUNITY CHAMPION, WENDY CAMPBELL, RAISING COMMUNITY AWARENESS FOR DEMONSTRATION

COMMUNITY ENGAGEMENT CHECKLIST

Trailnet created two videos to raise awareness about pop-up traffic calming demonstrations and the benefits they bring to communities.

Watch the videos below to learn more about traffic calming demonstrations in the City of St. Louis.

Promotional Video

<https://www.youtube.com/watch?v=N9rT9GOAWjY>

Extended Cut

https://www.youtube.com/watch?v=Vetz_iy9xug

The Community Engagement Checklist gives a basic overview of community engagement ideas and resources for conducting effective outreach.

Trailnet can provide technical assistance, if needed. For more information email Trailnet at planning@trailnet.org.

Tips

- When identifying potential community stakeholders, consider which users and modes of travel will be affected by traffic calming. (Pedestrians, bicyclists, people driving, children, the elderly, people with disabilities, minorities, and people with lesser incomes).
- Which government officials and departments need to be involved? (Planners, engineers, elected officials, transit agencies, public health).
- Community Champions should be supportive of traffic calming and educated with talking points on the benefits of using pop-up demonstrations. Champions should be able to discuss pros and cons of demonstrations. Champions can be residents, block captains, or other important stakeholders.
- Community Champions should feel comfortable canvassing and speaking about the project with diverse stakeholders.
- Meetings can be advertised online on Nextdoor, community Facebook pages, or Twitter. Meetings can also be advertised at common gathering locations, with help from block captains, community champions, or local universities.
- During meetings, provide space for all community stakeholders to express their opinions.
- We recommend using the meeting facilitation techniques of *The Skilled Facilitator* by Roger Schwarz.

Task – Guidelines on how to develop a pop-up traffic calming demonstration.

Output/Measure – How will the outcome of the task be measured?

Completion Date – Determine the due date for task.

Person Responsible – Who is in charge of completing the task?

Planning Meeting

Task	Output/Measure	Completion Date	Person Responsible
Identify and invite city and community stakeholders			
Identify purpose, objective, and goal for meeting			
Review meeting notes from previous meeting to track outcome of objectives			
Identify meeting location (meeting within neighborhood of interest)			
Create meeting agenda (template found on page 22)			
Follow up meeting with minutes/summary to attendees			
Meeting minutes should include list of names and affiliation of attendees			

Demonstration Community Outreach

Task	Output/Measure	Completion Date	Person Responsible
Identify and select Community Champion			
Create handout/flyer about demonstration			
Advertise demonstration details at common gathering spaces			
Identify best approach in how to advertise and engage community members in demonstrations by working with community stakeholders			
Canvas at businesses and homes that will be directly affected by demonstration			
Create press release			

Share demonstration details with local media outlets			
Survey and collect data on demonstration and non-demonstration day			

Optional Community Outreach Ideas

Task	Output/Measure	Completion Date	Person Responsible
Determine timeline for traffic calming demonstrations at neighborhood meetings			
Identify site selection for demonstration through outreach events such as walk audits			
Develop a planning process on how to engage neighborhood residents at demonstrations			

PUBLIC OUTREACH RESOURCES

Nextdoor is a private and free social network for neighborhoods. It was developed to connect individuals that live in the same area and can be used as a resource to learn about upcoming block parties, discuss neighborhood concerns, and report any emergency situations.

www.nextdoor.com

Facebook is a common, free social media outlet many individuals across all ages use to connect with one another. Facebook has similar capabilities as Nextdoor, allowing a space for discussion on neighborhood improvements and events through groups and pages.

www.facebook.com

Universities have access to many public outreach resources ranging from public bulletin boards on campus to interested student organizations that focus on social justice or volunteerism. Exploring partnership opportunities with local universities could have a large positive impact on projects as students could volunteer and help on demonstration days.

Community Recreation Centers within neighborhoods are great places to share resources and announce upcoming events. Recreation centers will connect individuals directly to community members and organizers should contact community recreation staff to promote the upcoming traffic calming demonstration. Community recreation centers can sometimes be used as a space to host community meetings.

Block Captains are individuals within the community that represent a certain block of a neighborhood. They are key stakeholders to involve in the project because they can further advance community involvement in the traffic calming demonstrations.

Community Organizations within the neighborhood have direct ties and resources to the community. They are helpful partners in outreach. These neighborhood organizations can invite community members to the traffic calming demonstration or represent the neighborhood's interests. Community organizations

can also offer to be another resource for identifying community members.

Community Partnerships that already exist are very helpful to include at the beginning of the project. They will quickly advance outreach and offer early input on community outreach tactics. In addition, they will have ideas on areas of concern within the community to improve street design.

Social Gathering Places are places that bring community members together. These places could be local churches, restaurants, or parks.

Traffic calming demonstration organizers should make time to get to know the community and ensure they are reaching out to all possible stakeholders to further advance the impact of the demonstrations.

Media Outlets

Local news sources such as newspapers, broadcast news stations, and communications professionals can also help spread the traffic calming story.

When reaching out to various media outlets, the organizers should have a clear understanding of purpose, time, location, and why it is important to implement the traffic calming demonstration.

For the City of St. Louis, to the right are key talking points organizers can use to prepare for interviews with media outlets.

Sample Talking Points for City of St. Louis Media Outlets

- **Our community is interested in ways to make streets feel safer and more welcoming for people walking, bicycling, and driving.**
- **There is a lot of discussion around traffic calming in the City—in part to reduce pedestrian injuries and deaths. These demonstrations are a chance for residents, elected officials, and city staff to see traffic calming in action, in order to make informed decisions.**
- **Slower, safer streets encourage community members to enjoy their neighborhoods while walking, bicycling, and chatting.**
- **The City and Trailnet partnered to create and update the City's Complete Streets policy. Putting traffic calming in place is just one more way the city is working to implement their policy and we are glad to help them push this along.**
- **The demonstration is a temporary solution to aid in guiding discussion about possible future street designs for our community.**

Organizers for the traffic calming demonstration can reach out to media outlets by contacting news reporters directly and encouraging them to cover the demonstration or by sending a press release to reporters.

To find media outlet contacts, individuals should search local media organizations and contact news reporters or the organization's communications coordinator. The amount of traction a story gains is often dependent on relationships with news reporters. Determine if there is someone in the community that has built up a relationship with a certain media outlet and ask them to contact the news reporter.

To the right are popular media outlets in St. Louis that report stories related to street design that organizers can contact.

Popular St. Louis Media Outlets

- Riverfront Times
- St. Louis Post-Dispatch
- St. Louis American
- St. Louis Public Radio
- KMOV News
- FOX2Now
- NextSTL
- Urban Review St. Louis
- Terrain Magazine
- Student Life - Washington University
- Trailnet



COMMUNITY MEMBERS AND VOLUNTEERS DURING DEMONSTRATION DAY

Press Release

A press release is a public statement issued to news media outlets for the purpose of providing information on specific topics. A press release should be used to share information on upcoming events or large new developments. Using a press release to announce an upcoming traffic calming demonstration is a good reason to reach out to the media.

An example of a press release can be found on pg. 45.

Key Tips When Writing a Press Release

- **Understand the audience the demonstration is trying to reach. Reach out to news organizations that would have an interest in reporting on how the traffic calming demonstrations are being used to change the discussion on street design.**
- **Reaching out to media organizations personally gives a higher chance for the media outlet to share the story.**
- **Writing the press release similar to a format of a news story helps because it means the reporter has to do less work in editing the press release.**
- **Including good quotes within the press release helps a news reporter build a full story.**

Press Release Checklist

- **Heading:** “PRESS RELEASE FOR IMMEDIATE RELEASE”
- **Contact:** Name, Email, Phone Number
- **Title:** Title should be bolded and catchy but short and clear
- **State the City and Date**
Example: (St. Louis, November 3)
- **The first paragraph** of the press release should be interesting enough to draw in the reader while staying informative.
- **Explain** who, what, when, where, why, and how
- **The “why”** is often most important and should be captured in the first two or three paragraphs.
- **Use clear and simple language**
- **Include helpful links** to other resources as well as helpful facts
- **Insert quotes** throughout the press release
- Press releases end with “###” at the bottom center of the document
- **Only one page maximum in length**, but **short and concise** press releases are the most appealing to news outlets



SCHOOL CROSSING GUARD AT DEMONSTRATION DAY

411 N 10- Street Suite 202
St. Louis, MO 63101
314.436.1324
Fax: 314.436.9215
trailnet.org



**PRESS RELEASE
FOR IMMEDIATE RELEASE**

Contact Info: (Insert name, email, phone here)

Trailnet to hold traffic-calming demonstration in JeffVanderLou

(St. Louis, November 3) – Streets in the JeffVanderLou neighborhood will be adorned with bright cones, flowers, plants and a temporary roundabout Tuesday, November 10, from 8 a.m. to 4 p.m. The installation will mimic street design changes meant to demonstrate what the neighborhood would look and feel like with slower moving traffic. Put on by Trailnet, an advocacy organization dedicated to improving walking and biking in St. Louis, the traffic-calming demonstration will utilize innovative methods of creating safer streets for people who walk or bicycle.

Through the demonstration, Trailnet hopes to give residents, policymakers, and businesses the chance to learn how traffic calming could improve quality of life. The Federal Highway Administration has designated the City of St. Louis as a Pedestrian Focus City because of its high rate of pedestrian and bicycle fatalities. The Demonstration will help prioritize safety for those who walk and bike and potentially lead to long-term regional projects in the future.

“We want our communities to have the best street design that can serve all residents,” said Marielle Brown, Bicycle and Pedestrian Planning Manager with Trailnet. “Grandparents, parents, and children should be able to walk to the park or local grocery store together and feel safe doing so because streets are designed with pedestrians in mind.”

Trailnet plans to install a number of traffic calming features on three streets surrounding one neighborhood block: Sheridan Avenue, Thomas Avenue, and Garrison Avenue. An information booth will be at the corner of Garrison Avenue and Sheridan Avenue.

The City of St. Louis recently bolstered its Complete Streets policy, and has been actively involved in planning pop up demonstrations. Trailnet will explore and present new street designs that could be used to implement the updated Complete Streets policy.

“We are looking forward to having this library of tools that will allow communities to ‘test out’ certain traffic-calming options for their community and see the results before a more permanent installation is constructed,” said Deanna Venker, Commissioner of Traffic with the City of St. Louis.

###

Trailnet’s mission is to lead in fostering healthy, active and vibrant communities where walking, bicycling and the use of public transit are a way of life.

Multimedia

Traffic calming demonstrations that utilize Trailnet's lending library will make for a colorful attractive event. Multimedia options should be considered while planning for the demonstration because pictures or footage captured during the event can have a large impact afterwards. Pictures and footage of the event aid in shaping a powerful story on the impact the traffic calming demonstration had on the community.

If there is room in the budget to capture footage by hiring a filmmaker the option is strongly recommended. Videos create a great recap and help share the message of the traffic calming demonstration.

To view an example of Trailnet's traffic calming demonstration video, visit the following links:

Promotional Video: <https://www.youtube.com/watch?v=N9rT9GOAWjY>

Extended Cut: https://www.youtube.com/watch?v=Vetz_1y9xug

Ideas for content to capture throughout the demonstrations

- Initial community engagement
- Public outreach meetings and community participation
- Setup and breakdown of the pop-up traffic calming demonstration
- During the demonstration capture footage of:
 - Interaction with residents, city staff, elected officials
 - Pop-up demonstration interactions including people driving, walking, or biking
 - Pictures of any significant moments from the pop-up demonstration such as large vehicles driving through
 - Footage of data collection such as measuring traffic speeds
- Renting a drone for recording overhead footage of demonstration

Walk Audits

Walk audits are an optional tool to use when researching which area would be best to implement a traffic calming demonstration. These guided walking tours allow residents, health professionals, and planners evaluate how the built environment affects communities and their health while sparking discussion on potential improvements. Information on walk audits can be found in *Appendix* - pg. 118-121.

Flyers

Flyers are helpful community outreach tools to use for engaging neighborhoods when distributing information at meetings or posting information about the demonstrations at recreation centers. Flyers should define who, what, when, where, and why with a catchy title. Flyers should also be clean and easy to understand. Flyer examples found in *Appendix* - pg. 122-126.



VOLUNTEERS AND COMMUNITY MEMBERS WITH TRAILNET STAFF

COMMUNITY ENGAGEMENT RESOURCES

Trailnet has a series of community engagement resources available for individuals to use as examples while preparing for the traffic calming demonstrations. Below are the available resources:

- Walkability Audit Fact Sheet
- Walk Audit Agenda Example
- Walk Audit Assessment Example
- Flyer Example - Overview Notice
- Flyer Example - Neighborhood Detailed Notice
- Traffic Calming FAQs
- Traffic Calming Tools

These handouts can be found in *Appendix* - pg. 115.



JOHN KOHLER, BOARD OF PUBLIC SERVICE, WITH TRAILNET STAFF

SITE PLANS

- 51 Purpose
 - 52 Site Selection
 - 54 Cost Estimate of Permanent Infrastructure
 - 60 Traffic Calming Design Guidelines
 - 70 Site Plan Resources
 - 71 Wayfinding Signage
 - 72 Site Plan Considerations
 - 75 How to Create Site Plans
-

Creating one's own traffic calming demonstration involves careful planning and community engagement. Site plans aid in preparation for a traffic calming demonstration because they lay out materials needed and give a preview of how the demonstration will look.



PURPOSE

The site plans are a major asset when planning for the demonstration. They provide a thoughtful overview of the traffic calming measures and how they affect the neighborhood.

When designing a site plan, individuals should create an implementation plan as well. An implementation plan outlines what organizers can accomplish within their timeline and notes the

number of volunteers needed to successfully implement the demonstration. The traffic calming demonstrations are most successful when organizers focus on creating a demonstration that has a radius of only a couple blocks. Determining the size of the demonstration will be different depending on the neighborhood, but it is essential to consider the available opportunities and how they will affect the demonstration.

The goal of the site plan is to create a document that spreads awareness and understanding of the traffic calming demonstration. The site plans are a tool for guidance and not all things will go according to plan. For example, there may be a car parked in an area that was designated to be open to create a chokepoint. Organizers should be prepared and flexible on the day of the demonstration.

SITE PLANS HELP ORGANIZERS CONSIDER:

- **Ownership of street and existing code**
- **Distance and width of the streets**
- **Parking on the street**
- **Understanding what type of traffic calming design to use**
- **Traffic calming and signage design placement**
- **Equipment needed to construct traffic calming design**
- **Communicate the vision and purpose of the traffic calming demonstration**

SITE SELECTION

Organizers should take time to visit the site and walk around the area before selecting a site location. When reviewing a site selection, there are key principles organizers should evaluate.

Site selection for the traffic calming demonstration should involve gathering information on traffic fatalities and crashes. When looking into the fatalities and crash information, if available,

individuals should pay close attention to demographic, age, and cause of crashes.

Evaluating cause of crashes could involve gathering information on time of day, environmental conditions, and any other information that would be beneficial in determining what type of demonstration would be the most useful for the neighborhood.



COMMUNITY MEMBER CROSSING THE STREET ON DEMONSTRATION DAY

TIPS TO CONSIDER DURING SITE SELECTION:

- Degree to which the site fulfills the goals/objectives of project
- Bathroom access during demonstration
- Engage local businesses affected by demonstration
- Transit routes, emergency vehicle routes, school drop off zones

SITE SELECTION KEY PRINCIPLES

Purpose of Demonstration

Creating goals and defining success of the pop-up demonstrations will aid in determining the objectives, such as which modes of travel to engage during the demonstration.

Purpose of Street

The purpose of the street will help the site planning for the demonstration because residential streets and commercial streets serve different purposes for the community.

Ownership of Street and Existing Code

Determining the ownership of the street will aid in planning which stakeholders to involve (e.g. city, township, state). Existing code allows organizers to identify if there are initial barriers for the demonstration.

Parking

Existing parking spots to be taken for the demonstration should be carefully selected and the residents who will be affected by the change in parking should be notified of the changes.

Street Width

Street Width could play a large role in deciding which type of traffic calming demonstration options are available to implement.

Example: If the street is 30 feet wide with existing parking, it could be difficult to use traffic calming measures that narrow the street or make drivers veer slightly to slow down.

Speed Limit

Clarifying the speed limit for the location and gathering the average speed of people driving will help decide what type of demonstration is needed. The speed of people driving is affected by street design. If a street is wider than usual without any barriers, people will be inclined to drive faster.

Traffic Flow

Determining the average traffic flow for the neighborhood will aid in identifying what type of traffic calming measure to demonstrate.

Crash Data

Information on understanding causes of crashes could be beneficial in determining what type of demonstration would be most useful for the neighborhood.

Accessibility to neighborhood destinations, including:

- Transit stops
- Grocery Stores
- Schools
- Community Resource Centers
- Parks
- Churches

Walk Audits

Walk audits are an optional tool to use when researching which area would be best to implement a traffic calming demonstration. Walk audits are guided walking tours to evaluate how the built environment affects communities and their health.

Information on walk audits can be found in *Appendix - pg. 118-121*.

COST ESTIMATE OF PERMANENT INFRASTRUCTURE

Organizers should consider what traffic calming features are financially feasible.

When creating the site plans for the demonstrations, organizers should consider what traffic calming features are financially feasible. For example, if there is limited funding then a speed hump may be cheaper to request over curb extensions. Financial needs should also be considered over a longer period of time. Cost estimates may include items such as design, reconstruction, infrastructure changes, stormwater improvements, or maintenance so costs may be higher than expected.

For more information on best practices for permanent infrastructure, Site Plan Resources on page 70 should be used as reference.

Cost estimates from the Federal Highway Administration on common infrastructure requests are on the following pages.

Bicycle Racks

Average Cost: \$680 each
Minimum Cost: \$65 each
Maximum Cost: \$3,725 each



Bicycle Lanes*

(per mile)

Average Cost: \$137,315

Minimum Cost: \$5,525

Maximum Cost: \$553,375

*Bicycle lanes can come in varying types. Bicycle lanes can be upgraded to buffered or protected bicycle lanes. To learn more, individuals should look to the National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guideline*.

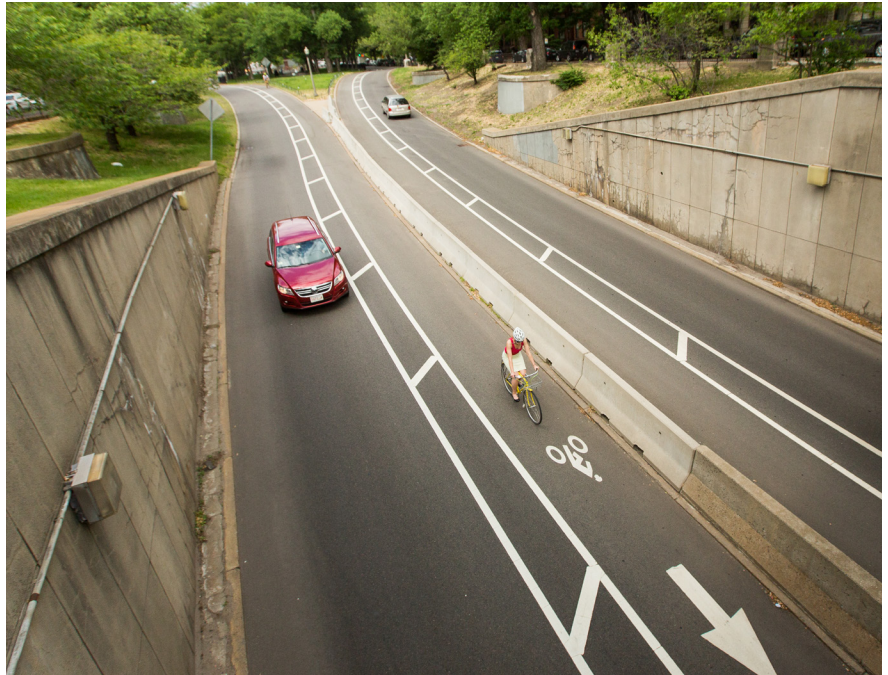


PHOTO CREDIT: ADAM COPPOLA PHOTOGRAPHY

Continental Crosswalk

(per square foot)

Average Cost: \$7.50

Minimum Cost: \$1.10

Maximum Cost: \$32



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / NICOLE SCHNEIDER

Concrete Sidewalk

(per linear foot for sidewalks that are five feet in width)

Average Cost: \$33

Minimum Cost: \$2

Maximum Cost: \$425



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / LAURA SANDT

Curb Extension

Average Cost: \$1,340 each

Minimum Cost: \$1,100 each

Maximum Cost: \$42,450 each



Speed Hump

Average Cost: \$2,725 each
Minimum Cost: \$712 each
Maximum Cost: \$7,075 each



Multi-use Paths

(per mile)
Average Cost: \$496,110
Minimum Cost: \$66,165
Maximum Cost: \$4,421,930



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / JIM HASH

Curb Ramp

(per square foot)
Average Cost: \$43
Minimum Cost: \$6
Maximum Cost: \$270



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN

Shared Lane Pavement Marking

Average Cost: \$185 each
Minimum Cost: \$22 each
Maximum Cost: \$620 each



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN

Chicanes

Average Cost: \$10,270 each
Minimum Cost: \$2,200 each
Maximum Cost: \$26,530 each



PHOTO CREDIT 1: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN
PHOTO CREDIT 2: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN

TRAFFIC CALMING DESIGN GUIDELINES

Crosswalks

Crosswalks or pedestrian crossings are designated spaces meant to help people cross the street. Crosswalks create spaces for people who walk to be predictable and visible to other users of the street. In the City of St. Louis, those who drive must yield to pedestrians at any right-angle crosswalk, whether marked or unmarked.



PERMANENT CROSSWALK

Design

Crosswalks should be at least six feet wide. If white lines are needed outside the crosswalk to better delineate it, those lines should be six to twenty-four inches in width. Crosswalks should extend to sidewalk curb ramps and include tactile, or textured, warning surfaces.



TEMPORARY CROSSWALK ON DEMONSTRATION DAY

RECOMMENDATIONS

There are various forms of crosswalks to use to increase the visibility of people walking, however, continental crosswalks are proven to be the most visible for users of the road.

Parking Lanes

Parking lanes are designated areas for people driving to park their vehicles.

Design

Parking lanes typically are seven to nine feet in width. If helpful during the demonstration, parking lanes can be marked to narrow the street and help designate the driving lane.



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN

Recommendations

Parking is important to many residents, so when removed for the demonstration, notify the neighborhood and provide an explanation of why parking spots will be removed.



PERMANENT BIKE LANE AND PARKING LANE

RECOMMENDATIONS

Parking is important to many residents, so when removed for the demonstration, notify the neighborhood and provide an explanation of why parking spots will be removed.

Yield Streets

Yield streets are narrow two-way streets with parking that requires people who drive to yield to one another when approaching from opposite directions. Yield streets should be intuitive and function without vehicles crashing into one another.

Design

If a demonstration uses a yield street, there needs to be proper signage to indicate that it is a two-way street. According to the National Association of City Transportation Officials, yield streets with parking on both sides work best on streets that are 24 to 28 feet wide, while yield streets with parking on one side can be as narrow as 16 feet wide. If yield streets are used, they should be monitored to ensure they are not causing traffic problems for people driving.



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / DAN BURDEN

RECOMMENDATIONS

Yield streets may be difficult to demonstrate during a traffic calming demonstration, so if used, their purpose should be explained and a notification should be given to neighborhood residents.

Narrowing Lanes

Narrowing street width is a common approach to traffic calming to reduce the speed of people driving and to create a more safe and pleasant environment for all modes of transportation.

Design

According to the National Association of Transportation Officials, many urban street lanes can be narrowed to 10 feet and have a positive impact on safety without impeding the flow of traffic.



PERMANENT CURB EXTENSIONS CREATING NARROW LANES



TEMPORARY BUMP-OUTS CREATING NARROW LANES ON DEMONSTRATION DAY

RECOMMENDATIONS

Narrowing street lanes is an effective traffic calming tool that can be cost-effective and reduce crash rates.

Medians

Center blocks in the middle of the street are referred to as medians. Medians narrow the driving lane and can be used to beautify a neighborhood. They can consist of trees, grass, sculptures, and other amenities. People walking sometimes use medians as a refuge when crossing the street.

Design

Medians for the traffic calming demonstrations should be constructed to 40 feet in length. The width of a median will be designed based on the existing street conditions. The width should allow enough space for the driving lane on either side of the median to be eight to 10 feet.



TEMPORARY MEDIAN ON DEMONSTRATION DAY



TEMPORARY MEDIAN ON DEMONSTRATION DAY

RECOMMENDATIONS

Medians are recommended for use on streets wider than 35 feet. When used, medians should feature hardy trees and plants that do not block the visibility of people driving. Medians should be designed with people walking in mind to accommodate for the potential installation of crosswalks.

Curb Extensions

The best way to narrow the crossing distance for people walking at intersections is by installing curb extensions. Curb extensions increase safety and visibility for people walking. They also offer a waiting area for pedestrians and increase opportunities for green space.

Design

Curb extensions should be designed with enough space for people driving to pass one another on either side. The crossing distance should be around 20 feet for pedestrians.



CURB EXTENSION AND CROSSWALK ON DEMONSTRATION DAY



CURB EXTENSIONS AND CROSSWALK ON DEMONSTRATION DAY

RECOMMENDATIONS

If a crosswalk is needed, the width of the crosswalk should be designed to be an equal width between curb extensions. When constructed, the curb extension should consider features such as tree roots, drainage, fire hydrants, and emergency vehicles.

Chokepoint

Chokepoints, also known as chokers or pinchpoints, can be installed midblock to narrow driving lanes and slow down traffic. Chokepoints create opportunities for public space by adding amenities such as trees, bike parking, and benches.

Design

Chokepoints for traffic calming demonstrations should be 10 feet wide and designed to mirror one another across the street. The length of the chokepoints will be dependent on existing street designs. The length should be created to have enough space for people driving in opposite directions to pass each other.



TEMPORARY CHOKEPOINT ON DEMONSTRATION DAY



TEMPORARY CHOKEPOINT ON DEMONSTRATION DAY

RECOMMENDATIONS

Chokepoints should be used to narrow streets to slow people who drive. Chokepoints create a more pleasant and safer environment for people walking. Chokepoints can also be used in tandem with crosswalks, shortening the crossing distance for those who walk. Chokepoints with crosswalks should be marked if the street carries more than 2,000 vehicles per day. To access information on vehicles per day, organizers can begin with contacting their local public works department.

Mini-Roundabout

For neighborhood traffic calming, mini-roundabouts, also known as neighborhood traffic circles, should be used at lower speed, minor intersections. Mini-roundabouts create better traffic flow and more compliance for people driving to slow down as compared to of a four-way stop intersection.

Design

Mini-roundabouts should be installed with consideration for the use of the street. For example, an emergency vehicle route or a street used frequently by large trucks may not be the best location for a roundabout. Also, the existing street width should be evaluated to determine if there is enough space to accommodate motor vehicle turning radius. Mini-roundabouts should be designed with a minimum of 15 feet of clearance from the corner of the intersection to the widest point on the circle.



TEMPORARY MINI-ROUNDBOUT ON DEMONSTRATION DAY



PERMANENT MINI-ROUNDBOUT IN NEIGHBORHOOD

RECOMMENDATIONS

Mini-roundabouts should have clear signage to instruct people which direction the flow of traffic is moving within the intersection. Amenities like trees, shrubs, and statues can be added to beautify a mini-roundabout, but should not obstruct visibility.

Chicane

Chicanes are midblock curb extensions that are offset from one another and are used on low-volume streets. Chicanes cause people driving to veer slightly and can be designed on one-way or two-way streets. Chicanes cause people driving to slow down and drive more carefully.

Design

Chicanes work well in decreasing the speed of people driving, but chicanes remove many parking spots and do not work well on low-traffic two-way streets. Chicanes work best on a two-way street that is at least 40 feet wide, and a one-way street that is at least 23.33 feet wide. If there is enough space for chicanes, organizers should follow the American Public Works Association as a reference in how to design chicanes.

A few notes:

Signs for chicanes should be used to alert people driving of the change in the street. The most important aspect of designing a chicane is its placement.

Chicane Design from the American Public Works Association, *Design Guidelines for Traffic Calming Measures*, should be used as a reference when designing chicanes found in *Appendix: Traffic Calming Resources* - pg. 145.



TEMPORARY CHICANE AND SIGNAGE AT A DEMONSTRATION DAY



TEMPORARY CHICANE AT A DEMONSTRATION DAY

RECOMMENDATIONS

Chicanes should be designed with a one-foot to two-foot gap from curb for drainage. Chicanes are opportunities to increase public space by adding amenities like trees and benches. There are various forms of chicanes, so the street design should be studied to create the chicane best suited for the street.

Bike Lanes

Bike lanes create a more visible space for people biking in the public right of way to use. Bike lanes are effective at creating a feeling of safety when protected. Protected bikeways are bike lanes with features that include a physical barrier such as planters or poles that offer physical protection from passing vehicles.

Design

Bike lanes should be at least five feet wide and when possible with at least a two foot buffer. The buffer allows people biking to feel safer within the bike lane and gives space to move away from parked cars and avoid being hit by vehicle doors. Protected bikeways should have at least a three feet buffer.



BIKE LANE IN CHICAGO



BIKE LANE IN SEATTLE - PHOTO CREDIT: ADAM COPPOLA PHOTOGRAPHY

RECOMMENDATIONS

If the street is a major connector for people who bike to reach another major route, a bike lane should be added to increase safety. Successful bike lanes have unbroken routes to improve conditions for those who bike. Bike lanes have been shown to increase the number of people biking on the street.

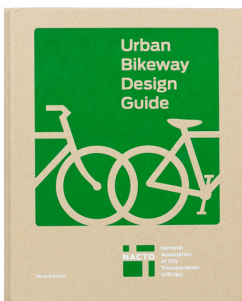
SITE PLAN RESOURCES



NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS: URBAN STREET DESIGN GUIDE

<http://nacto.org/publication/urban-street-design-guide/>

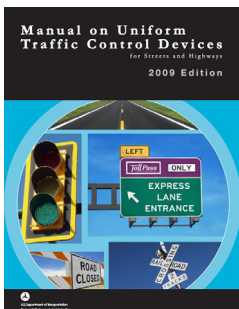
The Urban Street Design Guide was designed by leading planners, city engineers, and designers working in today's cities. The purpose of the guide is to offer solutions on how to transform and plan streets to confront the demands and challenges of today's ever-expanding set of needs for streets. The guide provides an in-depth overview of how to design livable, multimodal, and resilient city streets.



NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS: BIKEWAY DESIGN GUIDE

<http://nacto.org/publication/urban-bikeway-design-guide/>

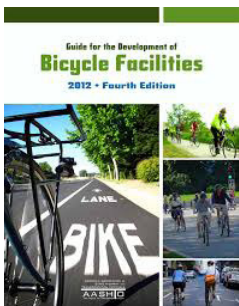
The Bikeway Design Guide was developed by cities for cities to address the growing number of people biking. Similar to the Urban Street Design Guide, this guide focuses on offering solutions on bikeway designs to make cycling more accessible to people.



MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

<http://mutcd.fhwa.dot.gov/>

The MUTCD is administered by the Federal Highway Administration as a compilation of national standards for all traffic control devices. This includes road markings, highway signs, and traffic signals.



AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS: GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, 2012

https://bookstore.transportation.org/collection_detail.aspx?ID=116

This guide provides information and guidelines on how to accommodate bicycle travel and operations in most riding environments.

WAYFINDING SIGNAGE

Wayfinding signage is a very useful cost-effective tool to promote walking and biking within neighborhoods. Wayfinding signage points individuals to destinations and typically the signs have information on distance and time to the location for different methods of transportation. Wayfinding signage should be used in the traffic calming demonstrations to promote walking and biking.

Organizers should identify important destinations in the neighborhood and create signage for the demonstration. The lending library has materials available to create wayfinding signs during the demonstration.

To test neighborhood interest on wayfinding signs, Walk [Your City] is a creative, quick, and affordable online service to purchase street signs. (<https://walkyourcity.org/>)



WAYFINDING SIGNAGE



PHOTO CREDIT: WWW.PEDBIKEIMAGES.ORG / LAURA SANDT

SITE PLAN CONSIDERATIONS

Signage and Reflective Materials

The use of Manual Uniform Traffic Control Device (MUTCD) signage and reflective materials should be considered when creating the site plan.

MUTCD signs may be required for traffic calming demonstrations and are dependent on the city's approval process. For the City of St. Louis, all demonstrations must be compliant with MUTCD guidelines. The traffic calming features that require MUTCD signs include chicanes, mini-roundabouts, and bike lanes. Trailnet has these MUTCD signs and portable sign holders as part of the traffic calming lending library.



PREPARING THE DEMONSTRATION SITE



TEMPORARY TRAFFIC CALMING ON DEMONSTRATION DAY

Reflective materials on traffic calming features increase their visibility in the roadway and should be used on all materials left outside overnight. During the day, reflective materials should be added to any items that may be difficult for drivers to notice. Trailnet added reflective tape to its traffic cones—which were placed next to brightly painted tires—to increase visibility for drivers and used white duct tape for markings on the street.

Sign Placement

Sign placement should be considered for the demonstration. If traffic calming measures require signage then the site plans will aid in properly identifying where to place the signs. The Manual on Uniform Traffic Control Devices (MUTCD) includes recommendations for placing warning signs according to the streets speed limits.

For example sign placement for potential stop situations, on streets with speed limits 35 mph and under, MUTCD notes that the minimum distance required for people driving to decelerate is 100 feet. However, MUTCD recommends placing signs 565 feet in advance when the speed limit is 35 mph; 460 feet with a 30 mph speed limit; 325 feet with a 25 mph speed limit; and 225 feet with a 20 mph speed limit. Further information on warning sign placement can be found in the figure on the right.

MUTCD recommends placing signs so that distance from the widest edge of the sign to the edge of the curb is two feet. Signs

Table 2C-4. Guidelines for Advance Placement of Warning Signs

Posted or 85th-Percentile Speed	Advance Placement Distance ¹								
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		0 ³	10 ⁴	20 ⁴	30 ⁴	40 ⁴	50 ⁴	60 ⁴	70 ⁴
20 mph	225 ft	100 ft ⁵	N/A ⁵	—	—	—	—	—	—
25 mph	325 ft	100 ft ⁵	N/A ⁵	N/A ⁵	—	—	—	—	—
30 mph	460 ft	100 ft ⁵	N/A ⁵	N/A ⁵	—	—	—	—	—
35 mph	565 ft	100 ft ⁵	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—
40 mph	670 ft	125 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—	—
45 mph	775 ft	175 ft	125 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—
50 mph	885 ft	250 ft	200 ft	175 ft	125 ft	100 ft ⁶	—	—	—
55 mph	990 ft	325 ft	275 ft	225 ft	200 ft	125 ft	N/A ⁵	—	—
60 mph	1,100 ft	400 ft	350 ft	325 ft	275 ft	200 ft	100 ft ⁶	—	—
65 mph	1,200 ft	475 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft ⁶	—
70 mph	1,250 ft	550 ft	525 ft	500 ft	450 ft	375 ft	275 ft	150 ft	—
75 mph	1,350 ft	650 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft ⁶

¹ The distances are adjusted for a sign legibility distance of 180 feet for Condition A. The distances for Condition B have been adjusted for a sign legibility distance of 250 feet, which is appropriate for an alignment warning symbol sign. For Conditions A and B, warning signs with less than 6-inch legend or more than four words, a minimum of 100 feet should be added to the advance placement distance to provide adequate legibility of the warning sign.

² Typical conditions are locations where the road user must use extra time to adjust speed and change lanes in heavy traffic because of a complex driving situation. Typical signs are Merge and Right Lane Ends. The distances are determined by providing the driver a PRT of 14.0 to 14.5 seconds for vehicle maneuvers (2005 AASHTO Policy, Exhibit 3-3, Decision Sight Distance, Avoidance Maneuver E) minus the legibility distance of 180 feet for the appropriate sign.

³ Typical condition is the warning of a potential stop situation. Typical signs are Stop Ahead, Yield Ahead, Signal Ahead, and Intersection Warning signs. The distances are based on the 2005 AASHTO Policy, Exhibit 3-1, Stopping Sight Distance, providing a PRT of 2.5 seconds, a deceleration rate of 11.2 feet/second², minus the sign legibility distance of 180 feet.

⁴ Typical conditions are locations where the road user must decrease speed to maneuver through the warned condition. Typical signs are Turn, Curve, Reverse Turn, or Reverse Curve. The distance is determined by providing a 2.5 second PRT, a vehicle deceleration rate of 10 feet/second², minus the sign legibility distance of 250 feet.

⁵ No suggested distances are provided for these speeds, as the placement location is dependent on site conditions and other signing. An alignment warning sign may be placed anywhere from the point of curvature up to 100 feet in advance of the curve. However, the alignment warning sign should be installed in advance of the curve and at least 100 feet from any other signs.

⁶ The minimum advance placement distance is listed as 100 feet to provide adequate spacing between signs.

Sect. 2C.04 to 2C.05

December 2009

Source: <http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part2c.pdf>

should be elevated seven feet from the ground to the bottom most point of the sign¹.

For the traffic calming demonstrations, mini-roundabouts, chicanes, and bike lanes will need MUTCD signage. The lending library has these available. For mini-roundabouts and chicanes, speed limit signs will need to be posted along with warning signs.

¹ https://www.osha.gov/doc/highway_workzones/mutcd/6f_typesofdevices.html#6F-1.%20SIGNS

“No Parking” Signs

“No Parking” signs should be noted on site plans as well. In the City of St. Louis, no parking signs will need to be requested from the Street Department. No parking signs should be placed anywhere the pop-up traffic calming materials will block access to an existing parking spot. Also, no parking signs can be added throughout the demonstration even if there are no traffic calming materials if the purpose of the demonstration is to educate people driving where they can and cannot park.



HOW TO CREATE SITE PLANS

There are many different methods for creating site plans. Trailnet's preferred method is to use Microsoft Visio. Microsoft Visio is software for creating diagrams, but has many helpful tools that help create site plans. (<https://products.office.com/en-us/visio/flowchart-software>)

For open source data options, please review this link - <https://www.maketecheasier.com/5-best-free-alternatives-to-microsoft-visio/>

If there are questions on how to create a site plan, contact Trailnet at planning@trailnet.org to discuss technical assistance options.

Example site plans can be found in *Appendix: Site Plan Examples* - pg. 138-141.

WHAT TO LABEL ON SITE PLANS:

- **Distance from intersection**
- **Length and width of traffic calming feature**
- **Sign placement**
- **Traffic calming materials**
- **No parking signage**
- **Existing infrastructure (e.g. parking lane, bus stop, bike lane)**
- **Length and width of existing street**



TRAFFIC CALMING LENDING LIBRARY

- 79 Traffic Calming Lending Library Materials
 - 84 Pop-Up Traffic Calming Material Guidelines
 - 88 Lending Library Procedure
-

Trailnet has more than 600 materials in its traffic calming lending library for communities to use. The purpose of the lending library is to provide resources and materials for organizers to implement their own pop-up traffic calming demonstrations.



TRAFFIC CALMING LENDING LIBRARY MATERIALS

Below is a list of available resources to create a traffic calming demonstration. For more information on borrowing items, refer to *Lending Library Process* - pg. 88.

Item Request #	Resource	Quantity	Purpose	Note
SCENERY				
	Fake Tree	1	Teautify the area	
	Real Tree	varies	Beautify the area	For trees, please contact Forest ReLeaf of Missouri (http://moreleaf.org/contact/)
	Bistro Table	4	Offer seating during the demonstration and to create a more friendly pedestrian atmosphere	
	Bistro Chair	8	Same purpose as bistro table	
	Fake Flowers/ Plants	240	Beautify the demonstrations	
	Grass Rug	10	Beautify the area	
	Patio Umbrella	4	To add shade for outdoor seating to create a more pleasant environment	
	Umbrella Base	4	Same purpose as patio umbrella	
	Bungee Chairs	2	To offer relaxing and pleasant seating	

PAINT & PAINTING SUPPLIES

Item Request #	Resource	Quantity	Purpose	Note
	Long Paint Pole	2	To hold paint rollers when creating temporary crosswalks	
	Powder Tempera	varies	To paint temporarily on pavement	Cheap and easy to wash off
	Paint Chalk Line	varies	Tool for marking long straight lines on surfaces	To use, chalk string with powder and hold string taut against surface and then snap to transfer chalk
	White Painter Rags	varies	To aid in cleaning of paint and demonstration preparations	

DRAWING SUPPLIES

	Chalk	varies	To use for marking streets during set up	
	Easel with whiteboard/ chalkboard	2	Creates an attractive entrance sign to pop-up traffic calming demonstration	
	Butcher Paper	varies	Easy tool for gathering community feedback	
	Sharpies	varies	Can be used for "No-Parking" signs or during community engagement session	
	White boards	4	Can be used as wayfinding signs	

CLEANING SUPPLIES

Item Request #	Resource	Quantity	Purpose	Note
	Push Broom	2	To sweep streets	

SIGNS & SAFETY

	Safety Vests	19	To wear during setup, take-down, and during demonstration to increase visibility	
	Portable Sign Stand	8	To hold signs	
	Sign Stand Clamps	28	To hold signs	
	Lawn Signs	8	Lawn signs with arrows pointing to traffic calming demonstration	
	Lawn Sign Holders	8	Same as above	
	MUTCD Signage	varies	To use with certain traffic calming features	
	Speed Gun	2	To capture speed of people driving on street	
	Traffic Cones	103	To create traffic calming features	
	Tires	126	To create traffic calming features	

OTHER

	Work Gloves	24	To set up and break down materials	
	Bulletin Board	1	To post information	
	Folding Table	2	To hold information and snacks	
	Measuring Wheel	1	To accurately determine where to place demonstration equipment	

	Twine	varies	Useful material to have within demonstration equipment	
OTHER (CONTINUED)				
Item Request #	Resource	Quantity	Purpose	Note
	Scissors	1	Useful material to have within demonstration equipment	
	Masking Tape	varies	Useful material to have within demonstration equipment	
	Shipping Tape	varies	Useful material to have within demonstration equipment	
	White Duct Tape	varies	To outline traffic calming features	Demonstrations that encompass a few blocks should have at least 6 rolls of duct tape
	Reflective Tape	varies	To put on traffic calming features like cones	
	Zip Ties	varies	Useful material to have within demonstration equipment	
	Utility Knife	1	Useful material to have within demonstration equipment	
	Tape Measure	3	To measure traffic calming features and outline with chalk	
	Command Hooks - Medium	varies	To hold wayfinding signage	
	Posters	2	Traffic Calming FAQ and Traffic Calming Feature Explanations	

Tabling Resources Checklist

Tabling resources are paper materials that organizers of the traffic calming demonstration can print and display at an information table on-site during the demonstration. Smaller materials such as the comment cards and surveys should have many copies to share with community members that come to the demonstration. Items such as the traffic calming FAQ and the site plans can be printed larger and displayed on poster boards at the demonstration.

Tabling Resources can be found in the *Appendix* - pg.115.

Item Needed (Y/N)	Resource	Purpose
	Site Plans	Copy of site plan made for traffic calming demonstration
	Event Half Page Flyer	Helpful to have at demonstrations to share information with passersby
	Traffic Calming One-Pager	Explain traffic calming and its benefits
	Traffic Calming FAQ	Frequently asked questions about traffic calming
	Traffic Calming Tools	Provides examples of permanent traffic calming features
	Comment Cards	Collect comments about traffic calming demonstration
	Surveys	Gather input from individuals about perception of safety and feeling of street design
	Easel	To hold poster

POP-UP TRAFFIC CALMING MATERIAL GUIDELINES

Crosswalk

To create a temporary crosswalk for the traffic calming demonstration, individuals should have the proper materials and follow the instructions below.

Materials:

- Black Roofing Tar Paper
- Paint
- Paint Roller
- Extension Pole (for paint roller)
- Chalk
- Measuring Tape

Notes:

- Trailnet chose to use felt roofing tar paper
- The cheapest white paint should be purchased because the temporary crosswalks do not last for more than one demonstration
- Paint rollers should be attached to an extension pole because it will be easier to paint the strips while standing

Instructions:

- 1 Roofing tar paper should be unrolled and measured to determine length and width needed to create temporary crosswalk. Crosswalk length should stretch from curb to curb and width should be at least eight feet.
- 2 To prepare for painting the crosswalk, the roofing tar paper should be rolled out to desired length to begin painting stripes on crosswalk and create a continental crosswalk.
- 3 To create stripes for continental crosswalk blocks, measuring tape should be measured out to three feet and marked with chalk to alternate between white and black blocks for the entire length of the crosswalk. It is helpful to write the letter "W" in the white blocks to remember the paint order.
- 4 Once the continental crosswalk blocks are marked, paint should be poured into paint trays.
- 5 Attach paint rollers to extension pole and begin painting white blocks on roofing tar paper by alternating between white and black blocks.
- 6 Depending on the length of the crosswalk, paint can dry within two to three hours.
- 7 Once crosswalk is dry, the roofing tar paper should be rerolled and stored for the demonstration.



PREPARING TO PAINT THE TEMPORARY CROSSWALK



PAINTING THE TEMPORARY CROSSWALK



THE TEMPORARY CROSSWALK INSTALLED

Mini-Roundabout

To create a temporary mini-roundabout for a traffic calming demonstration, individuals should have materials and follow the instructions below.

Materials:

- 4 - 9' x 12' Drop Cloths
- Twine
- Permanent marker
- Scissors
- Utility knife
- Measuring tape

Optional:

- Paint
- Paint roller or brushes
- Paint stencil

Instructions:

The following instructions are for creating a 17' diameter mini-roundabout with a mountable curb. A mountable curb is a curb that a vehicle can drive over without damaging its tires and wheels.

By placing a canvas circle in the intersection and then placing cones and tires one foot to two feet from the edge of the circle, you can create a traffic circle that slows traffic while still allowing room for large trucks and emergency vehicles to make the turn by driving on the canvas. The appropriate size for the traffic circle will be determined when you are creating your site plans. On a practical note, it can be hard to find canvas drop cloths that are large enough for very wide streets.

- 1 First, measure and cut an 8' 8" piece of twine. Tie the permanent marker to one end of the twine using two inches of the twine, so that it is 8' 6" in total.
- 2 Lay out one drop cloth and have someone hold the twine on one corner of the drop cloth. Pull the twine taut, and use the marker to trace a quarter circle on the drop cloth.
- 3 Using heavy scissors, cut along the marked line. Repeat the process for each drop cloth.
- 4 Once you have your drop cloths cut, arrange them into a full circle, then paint them in whatever pattern you like. Using a stencil to create a repeating design can be easy and fast, but feel free to get creative!

Having a canvas circle makes it quick to set up the traffic calming circle. However, you can mark a circle on the street using twine and chalk. Just cut your twine to the radius of the circle with a few extra inches to tie the piece of chalk. Have one person hold the twine in the middle of the intersection and have another pull the twine taut and trace the circle with the chalk. Tape over the chalk line to define the outline and fill in your mini-roundabout with cones, tires, and the appropriate signs.



INSTALLING THE TEMPORARY MINI-ROUNDABOUT



INSTALLING THE TEMPORARY MINI-ROUNDABOUT



TEMPORARY MINI-ROUNDABOUT IN USE ON DEMONSTRATION DAY

LENDING LIBRARY PROCEDURE

Organizers that are interested in checking out materials from the traffic calming lending library should use the Lending Library Checklist found on the next page.

The checklist outlines the procedures that need to be followed in order to check out lending library materials. It includes a list of materials available for individuals to request or check out from Trailnet. If there are questions on the checklist, contact Trailnet at planning@trailnet.org.

Waiver & Liability

To borrow the traffic calming materials, individuals will need to sign a waiver through Trailnet. For a copy of the waiver, contact Trailnet at planning@trailnet.org. Organizers should also consider waivers needed for the following:

Volunteers

Volunteer safety is a high priority during the demonstrations, so volunteers should sign a waiver understanding the risks during the demonstrations as to not hold organizers responsible for any potential injuries

Participant Interviews

Participants interviewed during the demonstrations should sign a media release waiver. If individuals under 18 years old are filmed, they may need a waiver signed from their legal guardian or parent.

For liability, organizers should check with their insurance provider to see if Trailnet can be added as an insured to use traffic calming materials. Any organization that engages the public in events and uses volunteers will typically carry liability insurance. Please contact Trailnet at planning@trailnet.org for more questions on liability.



INSTALLING THE TEMPORARY TABLES AND CHAIRS

Lending Library Check-Out Process

The Lending Library Check-Out Process lists the procedures that need to be followed in order to check out lending library materials.

Trailnet can provide technical assistance, if needed. To learn more about Trailnet’s technical assistance opportunities please email Trailnet at planning@trailnet.org.

Completion Date	Person Responsible	Task
		Complete all tasks listed on the Traffic Calming Demonstration Checklist
		Review Materials Checklist
		Contact Trailnet at planning@trailnet.org with demonstration date, time, and needs specified
		Review and mark items needed from Lending Library Checklist

Return Process

Organizers of traffic calming demonstrations will need to contact Trailnet to determine the return process of materials. Trailnet will require a deposit to borrow lending library materials. Please contact Trailnet at planning@trailnet.org for more information.



DEMONSTRATION DAY

6

- 93 Preparing for Demonstration
- 95 Transporting Equipment
- 96 Volunteer Management
- 97 Safety Tips and Reminders
- 98 Trash Pick-Up
- 99 Setup
- 104 Demonstration Tips and Reminders
- 105 Data Collection
- 106 Clean Up

The most exciting day of all is the demonstration day! The demonstration day is an opportunity to engage the community in a different setting and interact with community members in real time about the changes being proposed. This is an engaging way to gather community input from residents about the changes they would like to see in their neighborhood for safer and more pleasant streets.



PREPARING FOR DEMONSTRATION

Trailnet created a materials checklist that can be used as a list for organizers to prepare for a pop-up traffic calming demonstrations. The materials checklist has information on equipment availability, tabling materials, and tasks to be completed before a demonstration. The materials in the checklist are specific to items available in Trailnet's lending library materials.

Materials

- Chalkboard & Whiteboard Easel
- Bistro Chairs
- Bistro Tables
- Small Table
- Brooms
- Buckets
- Bulletin Board
- Bungee Chairs
- Butcher Paper
- Canopy Tent
- Chalk
- Chalk Line
- Cones
- Connect 4
- Fake Fig Trees
- Fake Flowers
- Fake Grass
- Fake Mini-Plants
- Fake Tree
- First Aid Kit
- Folding Table
- Lawn Signs pointing to traffic calming
- Liquid Chalk
- Measuring Tape
- Measuring Wheels
- Manual on Uniform Traffic Control Devices (MUTCD) Signs
 - Roundabout
 - Chicanes
 - Speed (15 mph)
 - Bump Sign
- Paint Brushes
- Paint Rollers
- Rags
- Roofing Tar Paper
- Scissors
- Scrap Paper
- Sign Clamps
- Sign Stands
- Speed Guns
- Tempera Paint
- Tires
- Tool Box
- Trash Bags
- Umbrella Bases
- Umbrellas
- Utility Knife
- Safety Reflective Vests
- Wayfinding Signs
- White Duct Tape
- Work Gloves

Tabling Materials

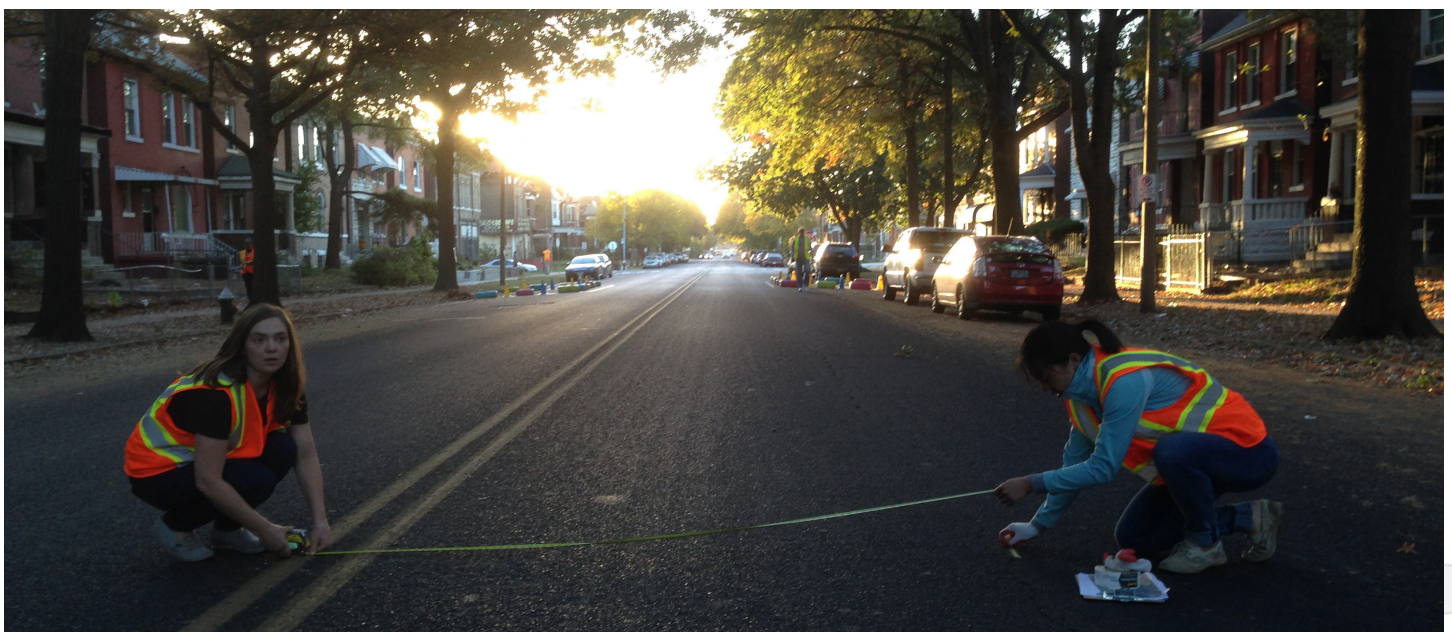
- Site Plans
- Half Page flyer about demonstration
- Traffic Calming One Pager
- Traffic Calming FAQ
- Traffic Calming Tools
- Surveys
- Snacks/Drinks
- Clipboards
- Pens
- Sharpie/Markers
- Binder Clips
- Table Cloth
- Easel
- Comment Cards
- Folding Table

Task List

- Putting up “No Parking” signs 48 hours before demonstration
- Email volunteers itinerary and reminder
- Request donation of live trees or plants
- Check in with community partners
- Obtain copy of permit
- Notify/invite police department to demonstration
- Notify/invite fire department to demonstration
- Notify/invite school/businesses to demonstration
- Send out press release to media

Note

- Not all materials will be needed for each demonstration
- Trailnet has a library of over 600 materials for individuals to use during demonstrations
- To learn about the quantity of each of these items, please refer to *Lending Library Checklist* - pg. 79-82.
- For any additional questions, please contact Trailnet at planning@trailnet.org



PREPARING THE SITE ON DEMONSTRATION DAY

TRANSPORTING EQUIPMENT

Trailnet has more than 600 materials individuals can check out for free to use during their pop-up traffic calming demonstrations. The materials range in size, so individuals should work with Trailnet in seeing what type of transportation they will need to move materials from Trailnet's warehouse to the traffic calming demonstration. For example, Trailnet uses one 13-passenger van with a trailer to move 126 tires and 103 cones. Organizers interested in renting Trailnet vans should discuss available options with Trailnet at planning@trailnet.org.



PREPARING FOR DEMONSTRATION DAY



MOVING PLANTS FOR DEMONSTRATION DAY

VOLUNTEER MANAGEMENT

Volunteers at the traffic calming demonstrations are immensely helpful in setting up and taking down materials for the demonstration. Volunteers can also speak with individuals that stop at traffic calming demonstrations to discuss the purpose and goal of the event.

Volunteers can be recruited from local neighborhood organizations, local community partners, local universities, and workplaces. To manage volunteer recruitment, free resources like SignUpGenius.com can help people sign up for a volunteer shift.

If organizers need assistance in using SignUpGenius, Trailnet has a step-by-step guide available upon request. Please contact Trailnet at planning@trailnet.org.



VOLUNTEERS, TRAILNET STAFF, AND THE COMMUNITY AT DEMONSTRATION DAY

- **Volunteers should feel they have a purpose at the demonstration. Trailnet did not need more than six volunteers at any one time during the event.**
- **10 volunteers for setup and take-down should be the minimum number of volunteers to recruit to take-down all materials in less than one hour.**

SAFETY TIPS AND REMINDERS

On demonstration days, safety should be emphasized to volunteers and individuals involved in the setup and take-down of materials as well as during the event. The traffic calming materials enhance the street design to help people driving to slow down, but it does not guarantee people's safety as organizers will have no control over the environment. Organizers should take time to get to know the area and know if there needs to be any specific safety reminders. For example, if the roadway is an area where people tend to exceed the speed limit, organizers should warn volunteers of potential reckless drivers.

Working in the streets can be dangerous and organizers should use all precautions to avoid encounters with cars when setting up and taking down events.

- **All individuals must wear reflective vests.**
- **All volunteers must be oriented on safety procedures and forewarned of any potential safety hazards.**
- **Take down and set up should have a step-by-step process and people should work in teams when moving traffic calming materials by focusing on one side of the street at a time to minimize crossing street midblock.**
- **Use street closures as necessary and if the area is a busy roadway, close street if permit allows.**
- **Establish emergency protocol in case there is an emergency (e.g. calling emergency contacts or police)**



TEMPORARY CURB BUMPOUTS AT DEMONSTRATION DAY

TRASH PICK-UP

Trash pick-up will add to the all-around beauty of the area and create a friendlier environment. People picking up trash should do so in teams of two or more. The trash picked up should be placed in trash bags and thrown away in dumpsters away from the demonstration site. Trash pick-up can be scheduled to occur before demonstration day or during the demonstration.



CLEANING UP THE SIDEWALK FOR DEMONSTRATION DAY

SETUP

1 Marking Up The Site

Organizers should begin demonstration setup by first marking streets with chalk according to site plans to establish placement of tape and traffic calming materials. While organizers are marking site plans, volunteers should begin marking outlines on the street with white duct tape. If the volunteers are new, organizers should take time to help volunteers tape the markings to learn what type of outlines the traffic calming features will be making. Once all the traffic calming features are marked with chalk, volunteers should continue to mark out traffic calming features with white duct tape while organizers and other volunteers begin the next phase of setup.

Each demonstration will vary in the amount of white duct tape needed to mark traffic calming features. On average Trailent used six to eight rolls of white duct tape (55 yards) at each demonstration. While people are marking traffic calming features with white duct tape, volunteers should work in teams to divert traffic away from them.

If needed, organizers should consider using signage, if available, to announce that the event is in progress or that the street is temporarily closed.



INSTALLING CHICANE ON DEMONSTRATION DAY



INSTALLING MEDIAN ON DEMONSTRATION DAY

2 Placement of Crosswalk

The crosswalk should be installed during the marking of the site plans while traffic is light and it is easy to close the street. The best way to lay out the crosswalk is to paint it before the demonstration and roll the dried crosswalk out day-of. If the roofing tar paper is rolled out on the day of the demonstration, it vastly shortens the amount of time required for installation. White duct tape should be taped onto the street on the edges of the crosswalk. When placing the crosswalk for the demonstration, people should work in teams to divert traffic away from those on the ground putting down duct tape.



INSTALLING CROSSWALK ON DEMONSTRATION DAY



INSTALLING CROSSWALK ON DEMONSTRATION DAY

3 Placement of Cones and Tires

Cones and tires should be placed within traffic calming features to enhance their visibility. The cones and tires should be placed in an alternating pattern within each traffic calming feature.

Below is an estimate of how many cones and tires will be needed:

Chicane:

Eight cones and eight tires, signs needed

Median:

14 cones and 14 tires

Choke Point:

Nine cones and nine tires

Roundabout:

10 cones and seven tires, four drop cloths to create circle, signs needed

Curb Extension:

Five cones and five tires



INSTALLING TIRES AND CONES ON DEMONSTRATION DAY



INSTALLING TIRES AND CONES ON DEMONSTRATION DAY

NOTE

The number of cones and tires will vary based on the width and length of each traffic calming feature.

4 Placement of Plants

The traffic calming lending library has hundreds of fake flowers and fake potted plants that can be placed throughout the demonstrations. The plants should be placed according to the organizers' and volunteers' discretion of what looks best. To the right is an example of different ways the fake flowers and fake potted plants have been set up for demonstrations.



INSTALLING FLOWERS AT DEMONSTRATION DAY

5 Placement of Tables

The traffic calming lending library comes with tables to use for tabling materials. Tables should be set up to best share information and collect feedback. Trailnet has many sample handouts to pass out or use as references for creating customized handouts. Sample handouts can be found in *Appendix - pg. 115*.

Tables can also be used for giving out snacks, collecting comments on large pieces of white butcher paper, and distributing handouts or other materials.



TABLE AND CHAIRS AT DEMONSTRATION DAY

6 Safety

Safety should continue to be emphasized throughout the traffic calming demonstration. All volunteers and organizers should wear reflective vests during the demonstration as well as during setup and take-down. Volunteers should work in teams during setup and take-down by working together on one side of the street at a time. Crossing back and forth on the street can be dangerous and volunteers should be continuously aware of their surroundings when working next to traffic. Organizers should be comfortable reinforcing safety procedures.



COMMUNITY MEMBERS ON DEMONSTRATION DAY

DEMONSTRATION TIPS AND REMINDERS

There will be unexpected situations that occur during demonstration day. Some common tips and reminders to consider during the demonstration are:

Prepare for parked cars to be parked in “No Parking” spots

There may be cars parked in areas designated “No Parking” for the traffic calming demonstration. Either try to identify which neighbor may have parked in the spot or, if possible, install the traffic calming feature in a way that will allow the owner of the car to move it.

Determine nearest bathroom to access for organizers and volunteers

If the demonstration is held on a residential street that is not near a public restroom, organizers should consider surrounding possibilities. Neighboring recreation centers, schools, or organizations may provide access to bathrooms if asked prior to the event.

Time of Demonstration

When selecting a time for the traffic calming demonstration, organizers should determine if the demonstration will be during morning or afternoon rush hour and how that will affect the set up or take down of the materials. For safety concerns, morning and afternoon rush hours should be avoided.

Making Adjustments

The demonstration will not go according to plan and that is okay. It is important to stay flexible and work within the constraints that are present the day of the demonstration. The demonstration will go smoothly as long as organizers are prepared and open to changing their plans if needed.



TEMPORARY MEDIAN ON DEMONSTRATION DAY

DATA COLLECTION

The traffic calming demonstration offers an opportunity to collect data. The data collected will help determine the success of the demonstration and how it is affecting the overall street design. The data is a powerful tool to use when working with interested stakeholders to show how traffic calming can be beneficial for the neighborhood. Learn more about data collection in *Data* - pg. 107



VOLUNTEER COLLECTING DATA AT DEMONSTRATION DAY

CLEAN UP



CLEANING UP TRAFFIC CALMING ELEMENTS AFTER DEMONSTRATION DAY

The traffic calming demonstration clean up process will be dependent on the number of volunteers available to help move materials. Organizers should review safety protocol with volunteers by reminding them to work in groups and on one side of a street at a time if the street is not closed. Below is a suggested clean up schedule:

1 Begin collecting fake flowers and fake potted plants from traffic calming features.

2 Move in groups to remove white duct tape from street before removing traffic calming features.

3 Move in groups to remove cones and tires from each of the traffic calming features.

4 Break down tabling materials.

Cleaning up and removing the traffic calming features will move much quicker than setup.

Removing the white duct tape before removing the cones and tires is for safety because removing the white duct tape takes much more time. The white duct tape comes up easiest when pulled closer from the ground.

When cleaning up materials, reorganize them efficiently and neatly as it will make the cleanup process move more smoothly.

DATA

- 109 Data Collection Process
 - 110 Survey Template
 - 111 Speed Data Template
 - 112 Stop Data Template
 - 113 Data Analysis
-

Data is an influential tool because it helps capture the big picture as to why changes need to occur. The data collected in the traffic calming demonstrations will be helpful in educating others about how traffic calming can create safer and more pleasant streets for all modes of transportation.

...rning about
and seeing
time is good.

the
poor
pinom
materials
allment
ment

* Cars would just
swerve out of the way
and hit parked cars
and hit parked cars

Wish the Glenora station
would be longer
Traffic signals
do not work well
(a thing is off)

Cars will stop signs

PEOPLE ARE
TAKING NOTICE
& ASKING
QUESTIONS!

It is
Beautiful!

TOTAL NET
on beginning
Bike classes

Good thing!
too many stop signs
Parks people to
be here this a
Suggester

- Right driver on + park
- Definitely slower and more
- Biking
- Happen further west
- Meets at St. Louis Ave
- Crossing the
- Street like bus stop
- Guide

Thank you, we will do it
not needed on this block
to other block
would've been
more helpful

Survey form with fields for Name, Address, Phone, Email, and various checkboxes for survey questions.

TRAFIC CHANGING TOOLS

Map of a city area with a highlighted route and various labels.



Labada... it on
luds it.



DATA COLLECTION PROCESS

There is key information to collect throughout the data collection process. This data will help determine the success of the traffic calming demonstration. The type of data to collect is listed to the right. Trailnet can be hired to aid in the data collection process.

If organizers choose to collect data during the traffic calming demonstration and on a non-demonstration day, the following items should be considered:

Weather

Collecting data on days with different weather could skew the results.

Location

If the data is being collected for a certain area, the results should be gathered in the same location.

Data Collection Time

Data should be collected at the same time of day.

Organizers should share collected data with Trailnet at planning@trailnet.org, if possible. Trailnet will create a case studies folder of data collected using pop-up demonstrations.

Survey Responses

Surveys are helpful because they gather qualitative data to understand people's perceptions of safety and their general feelings from the demonstrations.

Speed Data

Speed data gathered on a demonstration day and a non-demonstration day will determine the effectiveness of the traffic calming demonstration.

Tip - While observing speed during the demonstration and non-demonstration day, individuals should consider measuring speed out of the sight of drivers, such as behind trees. People driving tend to slow down if they know their speed is being measured.

Stop Sign Data

Complete stops, rolling stops, and no-stop data should be collected on a demonstration day and non-demonstration day to see if the traffic calming demonstration aided in drivers' compliance of stop signs.

- Complete stop: vehicle comes to a complete stop before the stop sign with no forward momentum.
- Rolling stop: vehicle briefly stops before the stop sign, but the vehicle is still in motion and moving less than 5 mph
- No stop: person driving does not decrease speed and drives through stop sign

Comments

Many residents will have comments during the traffic calming demonstration and organizers should either create comment cards to allow people to leave additional feedback or use the butcher paper found within the traffic calming lending library materials so people can freely leave comments during the demonstration.

SURVEY TEMPLATE

Trailnet created the traffic calming survey with an America Walks Walking College Ambassador to understand people's perception of safety and impression of the street design. The survey is a helpful tool in gathering community feedback and engaging people to rethink the street design. The survey should be conducted during the demonstration and on a non-demonstration day to measure the impact of the pop-up traffic calming demonstration.

As part of a neighborhood traffic calming demonstration, **the ORGANIZATION** wants to know how you feel about traffic safety in your neighborhood. Please answer the following questions about **LOCATION**. All answers are anonymous.

How do you feel about the following statements?

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
The traffic feels safe at LOCATION							
The corner of LOCATION							
It is easy to cross the street at the corner of LOCATION							

What do you think are the chances of the following things happening at **LOCATION** today?

	Highly unlikely	Unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Likely	Highly likely
People will drive over the speed limit.							
People driving will not stop at the stop signs.							
Someone driving will crash their car or hit a person walking or biking.							
Someone driving will almost crash or hit a person walking.							

Are there other traffic safety issues you have seen? Please explain:

Thank you for your time!

Please return this survey to **LOCATION**.

STOP DATA TEMPLATE

Stop Recording Datasheet

Name:

Intersection:

Date:

Event:

Time:

_____ to _____

Instructions: Tally the number of complete, rolling and no stops you observe. Add up the tallies and record the total at the bottom of the table. For more information on each stop category, view the definitions listed below.

<u>Complete Stop</u>	<u>Rolling Stop</u>	<u>No Stop</u>
Total Complete Stops: ____	Total Rolling Stops: ____	Total No Stops: ____

Definitions

- Complete Stop: Person driving comes to a complete stop before the stop sign with no forward momentum.
- Rolling Stop: Person driving briefly stops before the stop sign, but the vehicle is still in motion and moving less than 5 mph.
- No Stop: Person driving does not decrease speed and drives through stop sign.

DATA ANALYSIS

Analyzing the data collected during the evaluation of the traffic calming demonstration will take time. Once the information is reviewed, it will become a helpful tool to communicate how the traffic calming demonstration affected the community.

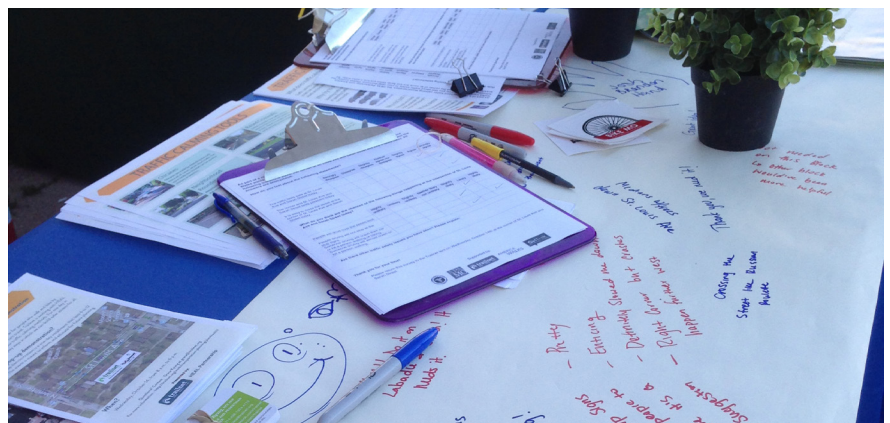
Trailnet created the infographic on the next page to share the traffic calming demonstration data results in an appealing way with the public. For more information on the data collected at Trailnet's traffic calming demonstrations, contact Trailnet at planning@trailnet.org.



CONDUCTING SURVEYS ON DEMONSTRATION DAY



COLLECTING SPEED DATA ON DEMONSTRATION DAY



COLLECTING SURVEY DATA AND COMMENTS FROM COMMUNITY MEMBERS ON DEMONSTRATION DAY

TRAFFIC CALMING DATA RESULTS

In fall of 2015, Trailnet, the Missouri Chapter of the American Planning Association, the HEAL Partnership, and the City of St. Louis hosted four pop-up traffic calming demonstrations. Colorful tires, cones and plants were used to narrow traffic lanes, create medians and extend sidewalks to slow down people driving and create safer streets.

People's driving speeds and stopping behaviors were tracked with and without the demonstration in place. Residents were also surveyed on their perceptions of safety and accessibility during the demonstration and with no demonstration.

The results on this page show the differences in people's driving behaviors and survey results of perceptions of safety and accessibility with and without the demonstration in place.



KEY
Without Demo → With Demo

THE VILLE
Average Speed
30.2 mph → 17.4 mph
Complete Stops
34% → 65%

JEFFVANDERLOU
Average Speed
24.4 mph → 22.8 mph
Complete Stops
48% → 63%

DUTCHTOWN
Average Speed
22.5 mph → 17.4 mph
Complete Stops
61% → 88%

CARONDELET
Average Speed
23.6 mph → 18.4 mph
Complete Stops
48% → 33%

The figures above show average speed and the percentage of all stops that were complete.

Average Responses	Without Demo	With Demo
Today, I feel...	1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = Agree, 7 = Strongly agree	
1) Traffic feels safe	3.49	5.15
2) The corner feels pleasant	4.15	5.69
3) It is easy to cross the street	3.67	5.47
Today, what is the likelihood someone will...	1 = Highly unlikely, 2 = Unlikely, 3 = Slightly unlikely, 4 = Neither unlikely nor likely, 5 = Slightly likely, 6 = Likely, 7 = Highly likely	
4) Drive over the speed limit	5.64	3.60
5) Not stop at stop signs	5.37	3.35
6) Crash car or hit someone	4.89	2.95
7) Almost crash car or hit someone	5.16	3.31

APPENDIX

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 - 118 Walkability Audit Fact Sheet
 - 120 Walk Audit Agenda Example
 - 121 Walk Audit Assessment Example
 - 122 Flyer Example - Overview Notice
 - 123 Flyer Examples - Neighborhood Detailed Notice
 - 127 Traffic Calming FAQs
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-





**PRESS RELEASE
FOR IMMEDIATE RELEASE**

Contact Info: (Insert name, email, phone here)

Trailnet to hold traffic-calming demonstration in JeffVanderLou

(St. Louis, November 3) – Streets in the JeffVanderLou neighborhood will be adorned with bright cones, flowers, plants and a temporary roundabout Tuesday, November 10, from 8 a.m. to 4 p.m. The installation will mimic street design changes meant to demonstrate what the neighborhood would look and feel like with slower moving traffic. Put on by Trailnet, an advocacy organization dedicated to improving walking and biking in St. Louis, the traffic-calming demonstration will utilize innovative methods of creating safer streets for people who walk or bicycle.

Through the demonstration, Trailnet hopes to give residents, policymakers, and businesses the chance to learn how traffic calming could improve quality of life. The Federal Highway Administration has designated the City of St. Louis as a Pedestrian Focus City because of its high rate of pedestrian and bicycle fatalities. The Demonstration will help prioritize safety for those who walk and bike and potentially lead to long-term regional projects in the future.

“We want our communities to have the best street design that can serve all residents,” said Marielle Brown, Bicycle and Pedestrian Planning Manager with Trailnet. “Grandparents, parents, and children should be able to walk to the park or local grocery store together and feel safe doing so because streets are designed with pedestrians in mind.”

Trailnet plans to install a number of traffic calming features on three streets surrounding one neighborhood block: Sheridan Avenue, Thomas Avenue, and Garrison Avenue. An information booth will be at the corner of Garrison Avenue and Sheridan Avenue.

The City of St. Louis recently bolstered its Complete Streets policy, and has been actively involved in planning pop up demonstrations. Trailnet will explore and present new street designs that could be used to implement the updated Complete Streets policy.

“We are looking forward to having this library of tools that will allow communities to 'test out' certain traffic-calming options for their community and see the results before a more permanent installation is constructed,” said Deanna Venker, Commissioner of Traffic with the City of St. Louis.

###

Trailnet’s mission is to lead in fostering healthy, active and vibrant communities where walking, bicycling and the use of public transit are a way of life.

Walkability Audit Fact Sheet

Why is walking important to a community?

Walking in welcoming neighborhood streets is an affordable and enjoyable way to increase social interaction and physical activity, which are both essential for human happiness and health. When walking to local businesses is enjoyable, it can help keep dollars in the community.

Why do we need walkability audits in St. Louis?

- Modest increases in bicycling and walking for short trips could provide enough exercise for 50 million inactive Americans to meet recommended activity levels. *(AFTA 2008)*
- In the City of St. Louis, more than one-quarter (27%) reports no leisure-time physical activity. While 80% of City residents live within a mile of a public park, poor pedestrian access in some areas may prevent regular park use. *(County Health Rankings & Parkscore)*
- 2.4% of all crashes in STL city between 2006 and 2010 were pedestrian-motor vehicle however they account for 36% of all fatal crashes and 9.4% of all injuries in the city. *(FOCUS Baseline Assessment)*

Walkability Audit Tips:

- Choose a walk audit format fits the needs of your participants; engineers and planners will be interested in technical forms while community members might be more engaged in examining how safe or pleasant it feels to walk.
- A group of 30 or less participants are recommended for walkability audits. *(Dan Burden, 2012)*
- Invite city planners, elected leaders, citizens, advocates, police officers, persons with disabilities and public health officials—anyone with a vested interest in creating a better community. *(Dan Burden, 2012)*
- Walk audits should be scheduled in advanced and around other events within the community when possible to increase turn out
- Walk audits should be done either in early morning or late afternoon for best turn out on hot weather days
- Walk audits should look at five key aspects to make a community work: Security, Convenience, Efficiency, Comfort, and Welcome *(Dan Burden, 2012)*

Quick Facts

Multimodal transportation helps prevent obesity related disease by giving people an opportunity to be physically active. **If the obesity rate were reduced 5% by 2030, Missouri would save \$13.4 billion dollars in health care costs.**

(Trust for America's Health, 2012)

Bicycling and walking represent 6.5% of trips in Missouri, 7.5% of roadway fatalities, and 15% of roadway injuries, **but receive only 1.8% of funding.**

(Missouri Bicycle Federation)

Half of the trips in America can be completed within a 20-minute bike ride, and a quarter of trips are within a 20-minute walk. Yet, the vast majority of these short trips are taken by automobile. *(AFTA 2008)*

24% of all pedestrian crashes in the state of MO occurred in St. Louis City.

(FOCUS Baseline)

Walkability Audit Fact Sheet

What are walkability audits?

Walkability audits are guided walking tours of an area that allow residents, health professionals, and planners evaluate how the built environment affects communities and their health. Each walker will have an evaluation sheet with a set of questions to answer for each block on the walk. Trailnet's community walk audits are meant to encourage discussion with residents and raise awareness of how the built environment can encourage people to walk.

Why do a walkability audit?

Walkability audits help a community understand what their needs are in order to encourage walking and bicycling. The audits give insight to how the design of streets, sidewalks and building can create a better place to walk. The walk audit will look for small steps that neighborhoods can take as well as larger projects that involve cooperation with other agencies.

What is evaluated in walkability audits?

The audits are used to evaluate the surrounding area around communities. Items like buildings, sidewalk width, trees, curb cuts, and other measures are looked at to understand how to create a more walkable community.

How long are walkability audits?

Walkability audits can vary in length and times depending on what an organizational needs are. Trailnet's walk audits are generally 2 hours long with a very leisurely pace of walking. The walking route should be determined beforehand in order to make sure a variety of blocks are evaluated. The guide should always be open for a detour to if something interesting comes up.

What are the outcomes of a walkability audit?

The outcomes from walkability audits are powerful and helpful for neighborhood change. Walkability audits give residents a chance to examine the small details that can help make a street a great place to walk. They are helpful tools to foster conversation with planners and engineers on how to create a better-built environment that encourage people to walk more.

Who receives the results of a walkability audit?

The results of the walkability audit should go to those who are interested in the effect of the built environment on individuals and how to improve their community needs. For example, city planners, elected leaders, citizens, advocates, police officers, persons with disabilities and public health officials – anyone with a vested interest in creating a better community.

What are the goals of a walkability audit?

The goals of a walkability audit are to understand barriers to the environment that would cause individuals to feel unsafe or prohibit their use of walking from one location to the next. The walkability audits help individuals understand roadway problems and to feel empowered to know how to ask for change. Walkability audits are tools to build advocates among your community.

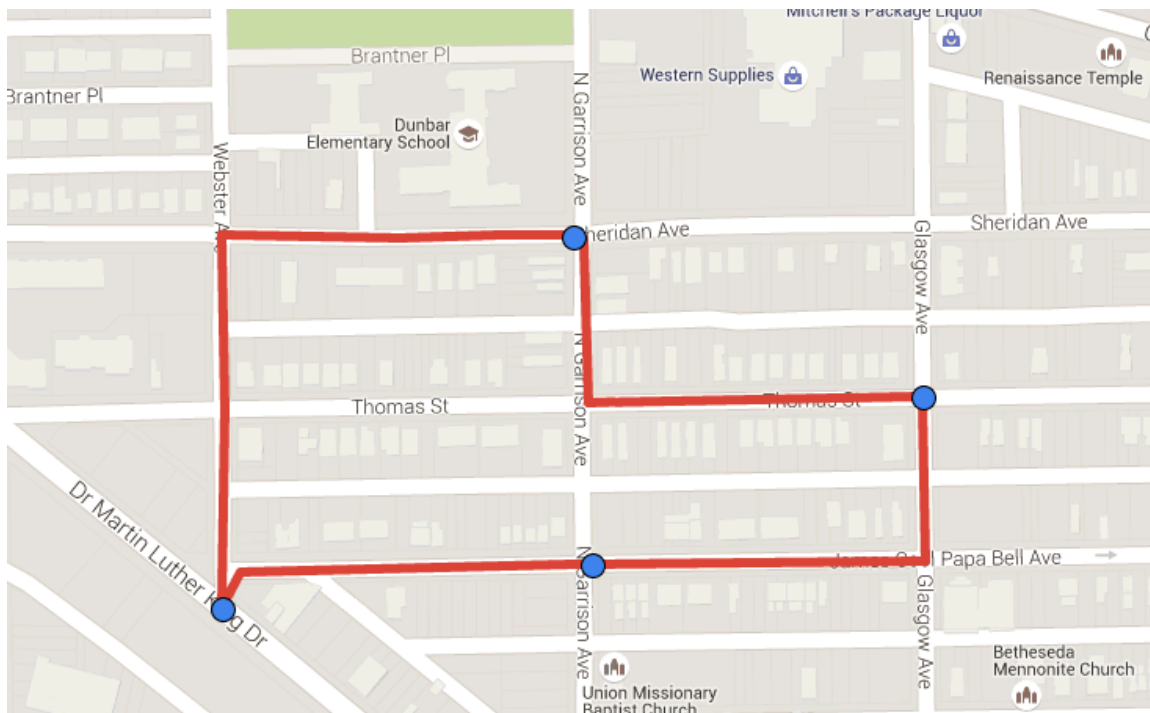
Walk Audit Agenda

Objectives:

After the walk audit, participants will be able to:

1. Identify how the design of the built environment impacts safe walking opportunities.
2. Talk confidently about what needs to be fixed and know where to report it.
3. Identify potential long-term and short-term projects to improve walkability.

- 8:00 – 8:15: Meet at Tillie’s Corner, introductions
- 8:15 – 8:30: Review of objectives and walk audit forms
- 8:30 – 9:30: Walk and talk
- 9:30 – 10:00: Closing conversation at Tillie’s Corner, next steps



Walk Audit

Location: _____ Avenue/Street
Between _____ & _____

1) Are sidewalk conditions adequate?

- Sidewalk is wide enough
- Sidewalk is continuous/smooth
- Sidewalk is not blocked by anything
- There are few driveways and they are narrow
- Tree lawn is clean and in good condition
- Trees provide shade

Comments

Rating: (circle one)

1 2 3 4 5

2) Was it easy to cross streets?

- Street is narrow enough to be crossed easily
- There are crosswalks
- Traffic is moving at a speed that feels safe
- There are enough traffic signals to cross the street easily
- There are no parked cars, trees, or signs blocking the view of people walking
- There are curb ramps in good condition

Comments

Rating: (circle one)

1 2 3 4 5

3) What are the building conditions?

- Buildings are built close to street
- Any parking lots are behind buildings, away from people walking
- Windows on buildings face the street
- Buildings and yards are well maintained
- There is no graffiti or trash

Comments

Rating: (circle one)

1 2 3 4 5

Rating Scale

- | | |
|-----------------|----------------------------|
| 1. Awful | 2. Serious Problems |
| 3. Fair | 4. Good |
| | 5. Excellent |

4) Is it safe and pleasant to walk here?

- A child would be safe walking here
- It is enjoyable to walk here
- Street lights illuminate the sidewalk and street
- People are friendly and welcoming
- Dogs are behind fences or on leashes
- There are attractive flowers, trees or other landscaping

Comments

Rating: (circle one)

1 2 3 4 5

5) Can you ride a bike here?

- An average person would feel safe bicycling on this street
- The pavement is smooth

Comments

Rating: (circle one)

1 2 3 4 5

Recommendations for improving walking and biking (Infrastructure Projects, Public Safety, etc...)

Total score: _____ out of 25

17+ = Celebrate! You have a great place to walk!

9-16 = You can walk, but there's work to be done.

0-8 = There is a lot of work to be done!



Coming Soon...

Pop-up traffic-calming demonstrations

What is traffic calming?

Traffic calming makes streets safer for people who walk and bike by reducing the speed at which cars travel. For one day in your area, we will display ways in which we can build safer streets for all.

What is a pop-up demonstration?

A pop-up demonstration is a one-day traffic calming installment that lasts 6 to 12 hours. The event helps to inform and educate for future planning.

Dutchtown

When?

Saturday, October 10, from 9 a.m. to 4 p.m.

Where?

3100 Block of Gasconade by Marquette Park

Ville/GreaterVille

When?

Wednesday, October 14th, 8am to 6pm

Where?

St. Louis Ave between Sarah St & Whittier St

Carondelet

When?

Tuesday, October 20th, from 7am to 5pm

Where?

On Bates Street behind Woodward Elementary School

JeffVanderLou

When?

Tuesday, November 10th, 7am to 5pm

Where?

Corner of Sheridan Ave and Garrison by Dunbar Elementary School

Questions? Contact - Grace Kyung at grace@trailnet.org

For more information - <http://trailnet.org/work/transportation-planning/plan4health/>

Presented by:



Coming Soon... **Downtown**

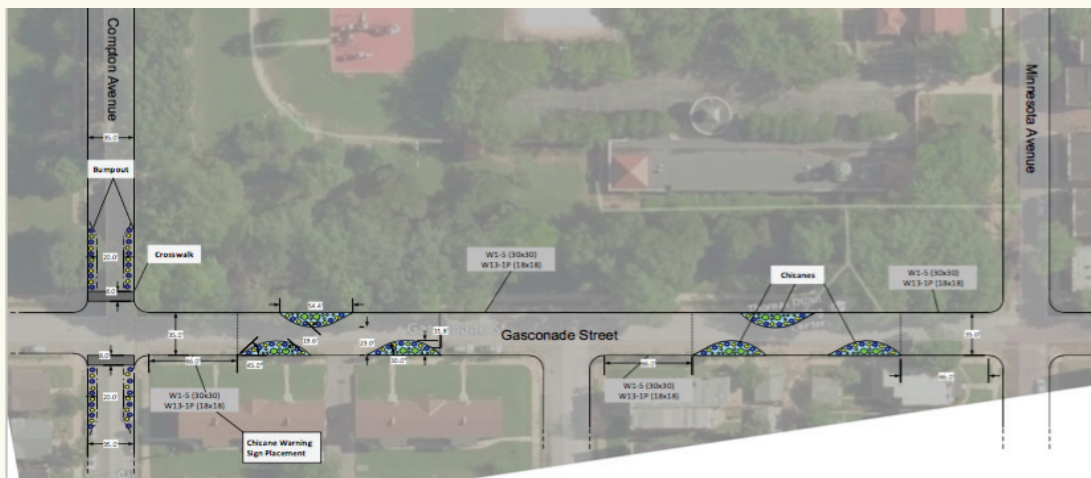
Pop-up traffic-calming demonstration

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What is a pop-up demonstration?

A pop-up demonstration is a one-day traffic calming installment that lasts 6 to 12 hours. The event helps to inform and educate for future planning.



When?

Saturday, October 10, from 9 a.m. to 4 p.m.

Where?

3100 Block of Gasconade by Marquette Park

Contact Wendy Campbell for Neighborhood Questions at 314-326-8613
For more information - <http://trailnet.org/work/transportation-planning/plan4health/>

Presented by:



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Coming Soon... Jeff VanderLou

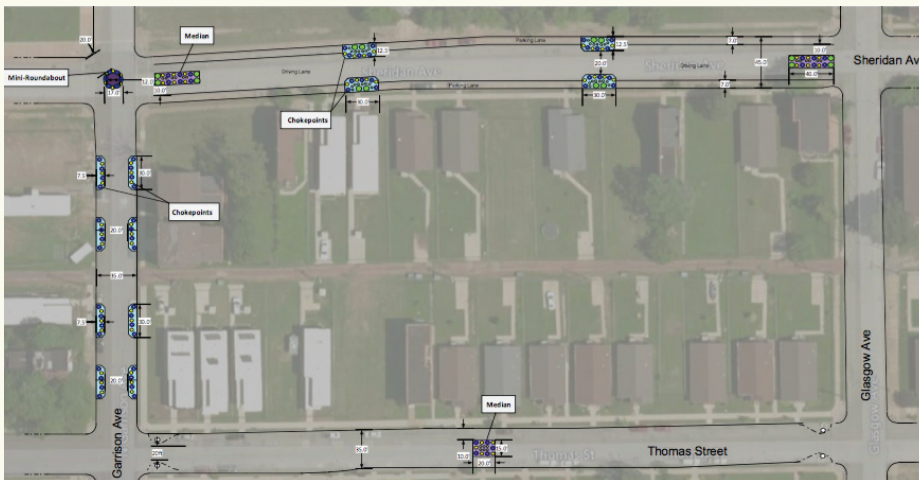
Pop-up traffic-calming demonstration

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What is a pop-up demonstration?

A pop-up demonstration is a one-day traffic calming installment that lasts 6 to 12 hours. The event helps to inform and educate for future planning.



When?

Tuesday, November 10, from 8 a.m. to 4 p.m.

Where?

Corner of Sheridan Ave and Garrison Ave by Dunbar Elementary School

Questions? Contact - Grace Kyung at grace@trailnet.org
For more information - <http://trailnet.org/work/transportation-planning/plan4health/>

Presented by:



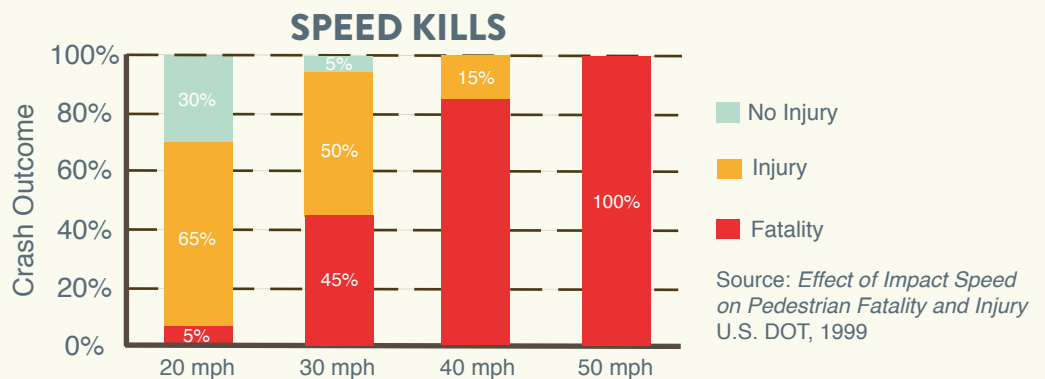
TRAFFIC CALMING FAQs

What does traffic calming mean?

Traffic calming is any physical change in a street that makes drivers slow down. When streets are narrow, curved, or have gentle speed “humps,” people usually drive more slowly and pay attention.

Why try to slow down traffic?

Speeding traffic can kill or injure people walking and bicycling. The noise and danger of speeding traffic can discourage people from walking or bicycling.



Why not just use stop signs?

Stop signs are cheap to install, but they can increase noise and speed when people accelerate quickly after stopping. Some people “roll” through stop signs, making streets even more dangerous.

Will this demonstration become permanent?

We hope that this demonstration will spark conversations about traffic calming and help people decide what works in their community.



TRAFFIC CALMING TOOLS



CHICANES

Chicanes are made by extending the curb into a set of curves, which slows traffic. The space inside the chicanes can be used for planters or benches.



RAISED CROSSWALKS

Raised crosswalks slow traffic and make it easy to cross the street with wheelchairs or strollers.



NEIGHBORHOOD ROUNDABOUTS

Neighborhood roundabouts slow traffic and the centers can be used for planters.



SPEED CUSHIONS

Speed cushions slow down neighborhood traffic while allowing emergency vehicles to go through without slowing down.



MEDIANS

Medians slow traffic by narrowing driving lanes. They can also increase safety for people walking across the street.



SPEED HUMPS

Speed humps have a gentle slope that slows traffic down without jolting the passengers or hurting the car.



CURB EXTENSIONS

Extending the curb at intersections makes it easier for people in cars and on foot to see each other. They also help people to cross the street more quickly.



PINCHPOINTS

Pinchpoints have extended curbs that make driving lanes narrower. The extended curbs can be used for planters or benches.



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Materials Checklist

Materials

- Chalkboard & Whiteboard Easel
- Bistro Chairs
- Bistro Tables
- Small Table
- Brooms
- Buckets
- Bulletin Board
- Bungee Chairs
- Butcher Paper
- Canopy Tent
- Chalk
- Chalk Line
- Cones
- Connect 4
- Fake Fig Trees
- Fake Flowers
- Fake Grass
- Fake Mini-Plants
- Fake Tree
- First Aid Kit
- Folding Table
- Lawn Signs pointing to traffic calming
- Liquid Chalk
- Measuring Tape
- Measuring Wheels
- Manual on Uniform Traffic Control Devices (MUTCD) Signs
 - Roundabout
 - Chicanes
 - Speed (15 mph)
 - Bump Sign
- Paint Brushes
- Paint Rollers
- Rags
- Roofing Tar Paper
- Scissors
- Scrap Paper
- Sign Clamps
- Sign Stands
- Speed Guns
- Tempera Paint
- Tires
- Tool Box
- Trash Bags
- Umbrella Bases

- Umbrellas
- Utility Knife
- Safety Reflective Vests
- Wayfinding Signs
- White Duct Tape
- Work Gloves

Tabling Materials

- Site Plans
- Half Page flyer about demonstration
- Traffic Calming One Pager
- Traffic Calming FAQ
- Traffic Calming Tools
- Surveys
- Snacks/Drinks
- Clipboards
- Pens
- Sharpie/Markers
- Binder Clips
- Table Cloth
- Easel
- Comment Cards
- Folding Table

Task List

- Putting up "No Parking" signs 48 hours before demonstration
- Email volunteers itinerary and reminder
- Request donation of live trees or plants
- Check in with community partners
- Obtain copy of permit
- Notify/invite police department to demonstration
- Notify/invite fire department to demonstration
- Notify/invite school/businesses to demonstration
- Send out press release to media

Notes:

- Not all materials will be needed for each demonstration.
- Trailnet has a library of over 600 materials for individuals to use during demonstrations.
- To learn about the quantity of each of these items, please refer to *the Lending Library Checklist*.
- For any additional questions, please contact Trailnet at planning@trailnet.org.

Community Engagement Checklist

Task – Guidelines on how to develop a pop-up traffic calming demonstration.

Output/Measure – How will the outcome of the task be measured?

Completion Date – Determine the due date for task.

Person Responsible – Who is in charge of completing the task?

Planning Meeting

Task	Output/Measure	Completion Date	Person Responsible
Identify and invite city and community stakeholders			
Identify purpose, objective, and goal for meeting			
Review meeting notes from previous meeting to track outcome of objectives			
Identify meeting location (meeting within neighborhood of interest)			
Create meeting agenda (template found on page 22)			
Follow up meeting with minutes/summary to attendees			
Meeting minutes should include list of names and affiliation of attendees			

Demonstration Community Outreach

Task	Output/Measure	Completion Date	Person Responsible
Identify and select Community Champion			
Create handout/flyer about demonstration			
Advertise demonstration details at common gathering spaces			
Identify best approach in how to advertise and engage community members in demonstrations by working with community stakeholders			

Canvas at businesses and homes that will be directly affected by demonstration			
Create press release			
Share demonstration details with local media outlets			
Survey and collect data on demonstration and non-demonstration day			

Optional Community Outreach Ideas

Task	Output/Measure	Completion Date	Person Responsible
Determine timeline for traffic calming demonstrations at neighborhood meetings			
Identify site selection for demonstration through outreach events such as walk audits			
Develop a planning process on how to engage neighborhood residents at demonstrations			

Traffic Calming Demonstration Checklist

Determine Purpose of Event

Task	Output/Measure	Completion Date	Person Responsible
Determine goals/objectives of traffic calming demonstration			
Create logic model to determine desired outputs and outcomes			
Identify key city stakeholders			
Identify key community stakeholders			

Community Outreach

Task	Output/Measure	Completion Date	Person Responsible
Reach out to community stakeholders about proposed traffic calming project			
Identify community champions			

Traffic Calming Demonstration Logistics

Task	Output/Measure	Completion Date	Person Responsible
Determine planning process for traffic calming demonstration			
Choose traffic calming demonstration site location			
Determine who owns the streets for demonstration site location			
Determine time and date of traffic calming demonstration			
Design site plan for traffic calming demonstration			
Discuss resources for materials – including Trailnet traffic calming lending library, donations, purchases			
Obtain permits to implement the traffic calming demonstration			
Determine how many volunteers will be needed for demonstration			
Review Materials Checklist			
Determine strategy for media/marketing traffic calming demonstration			
Revisit project goals/objectives to assure demonstrations are achieving desired outcomes			

Lending Library Checklist

Item Request #	Resource	Quantity	Purpose	Note
SCENERY				
	Fake Tree	1	Beautify the area	
	Real Tree	varies	Beautify the area	For trees, please contact Forest ReLeaf of Missouri (http://moreleaf.org/contact/)
	Bistro Table	4	Offer seating during the demonstration and to create a more friendly pedestrian atmosphere	
	Bistro Chair	8	Same purpose as bistro table	
	Fake Flowers/ Plants	240	Beautify the demonstrations	
	Grass Rug	10	Beautify the area	
	Patio Umbrella	4	To add shade for outdoor seating to create a more pleasant environment	
	Umbrella Base	4	Same purpose as patio umbrella	
	Bungee Chairs	2	To offer relaxing and pleasant seating	
PAINT & PAINTING SUPPLIES				
	Long Paint Pole	2	To hold paint rollers when creating temporary crosswalks	
	Powder Tempera	varies	To paint temporarily on pavement	Cheap and easy to wash off

PAINT & PAINTING SUPPLIES				
Item Request #	Resource	Quantity	Purpose	Note
	Paint Chalk Line	varies	Tool for marking long straight lines on surfaces	To use, chalk string with powder and hold string taut against surface and then snap it to transfer chalk
	White Painter Rags	varies	To aid in cleaning of paint and demonstration preparations	
DRAWING SUPPLIES				
	Chalk	varies	To use for marking streets during set up	
	Easel with whiteboard/ chalkboard	2	Creates an attractive entrance sign to pop-up traffic calming demonstration	
	Butcher Paper	varies	Easy tool for gathering community feedback	
	Sharpies	varies	Can be used for "No-Parking" signs or during community engagement session	
	White boards	4	Can be used as wayfinding signs	
CLEANING SUPPLIES				
	Push Broom	2	To sweep streets	

SIGNS & SAFETY				
Item Request #	Resource	Quantity	Purpose	Note
	Safety Vests	19	To wear during setup, take-down, and during demonstration to increase visibility	
	Portable Sign Stand	8	To hold signs	
	Sign Stand Clamps	28	To hold signs	
	Lawn Signs	8	Lawn signs with arrows pointing to traffic calming demonstration	
	Lawn Sign Holders	8	Same as above	
	MUTCD Signage	varies	To use with certain traffic calming features	
	Speed Gun	2	To capture speed of people driving on street	
	Traffic Cones	103	To create traffic calming features	
	Tires	126	To create traffic calming features	
OTHER				
	Work Gloves	24	To set up and break down materials	
	Bulletin Board	1	To post information	
	Folding Table	2	To hold information and snacks	
	Measuring Wheel	1	To accurately determine where to place demonstration equipment	

	Twine	varies	Useful material to have within demonstration equipment	
OTHER (CONTINUED)				
Item Request #	Resource	Quantity	Purpose	Note
	Scissors	1	Useful material to have within demonstration equipment	
	Masking Tape	varies	Useful material to have within demonstration equipment	
	Shipping Tape	varies	Useful material to have within demonstration equipment	
	White Duct Tape	varies	To outline traffic calming features	Demonstrations that encompass a few blocks should have at least 6 rolls of duct tape
	Reflective Tape	varies	To put on traffic calming features like cones	
	Zip Ties	varies	Useful material to have within demonstration equipment	
	Utility Knife	1	Useful material to have within demonstration equipment	
	Tape Measure	3	To measure traffic calming features and outline with chalk	
	Command Hooks - Medium	varies	To hold wayfinding signage	
	Posters	2	Traffic Calming FAQ and Traffic Calming Feature Explanations	

Tabling Resources Checklist

Tabling resources are paper materials that organizers of the traffic calming demonstration can print and display at an information table on-site during the demonstration. Smaller materials such as the comment cards and surveys should have many copies to share with community members that come to the demonstration. Items such as the traffic calming FAQ and the site plans can be printed larger and displayed on poster boards at the demonstration.

Tabling Resources can be found in the *Appendix* - pg.115.

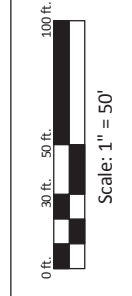
Item Needed (Y/N)	Resource	Purpose
	Site Plans	Copy of site plan made for traffic calming demonstration
	Event Half Page Flyer	Helpful to have at demonstrations to share information with passersby
	Traffic Calming One-Pager	Explain traffic calming and its benefits
	Traffic Calming FAQ	Frequently asked questions about traffic calming
	Traffic Calming Tools	Provides examples of permanent traffic calming features
	Comment Cards	Collect comments about traffic calming demonstration
	Surveys	Gather input from individuals about perception of safety and feeling of street design
	Easel	To hold poster

Dutchtown Site Plan



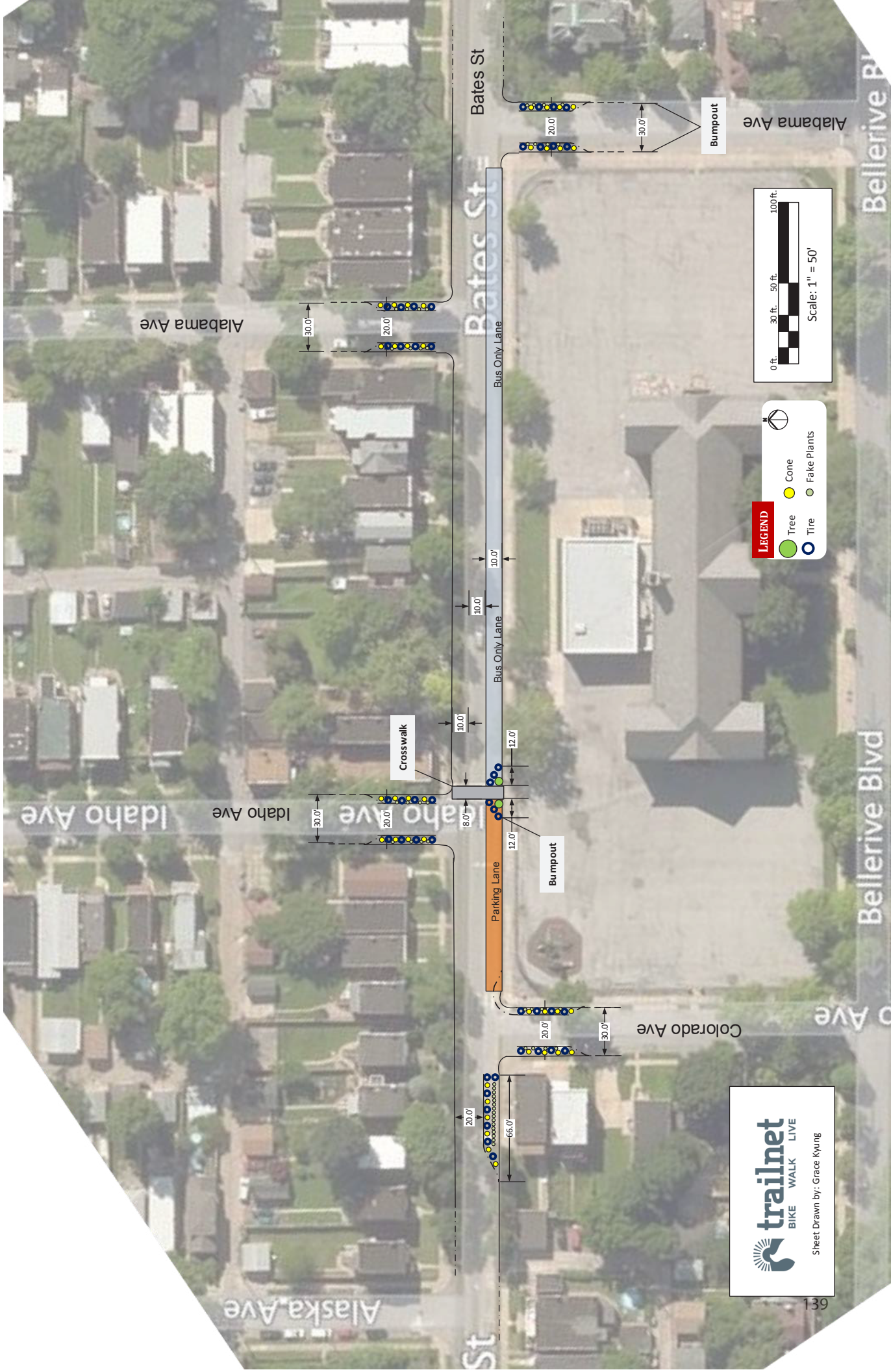
LEGEND

- Tree
- Cone
- Tire
- Fake Plants



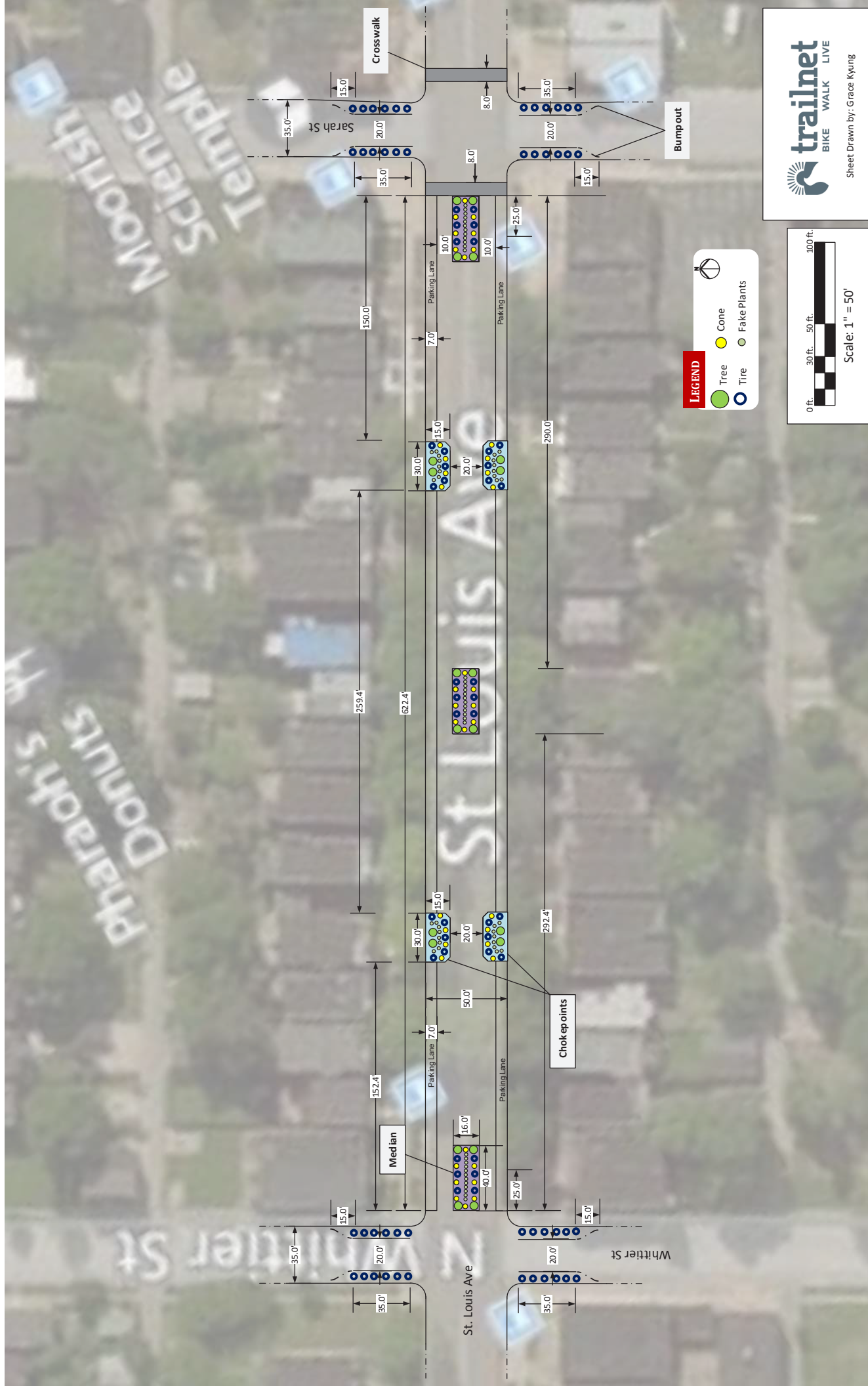
trainnet
BIKE WALK LIVE
Sheet Drawn by: Taylor March & Grace Kyung

Carondelet Site Plan

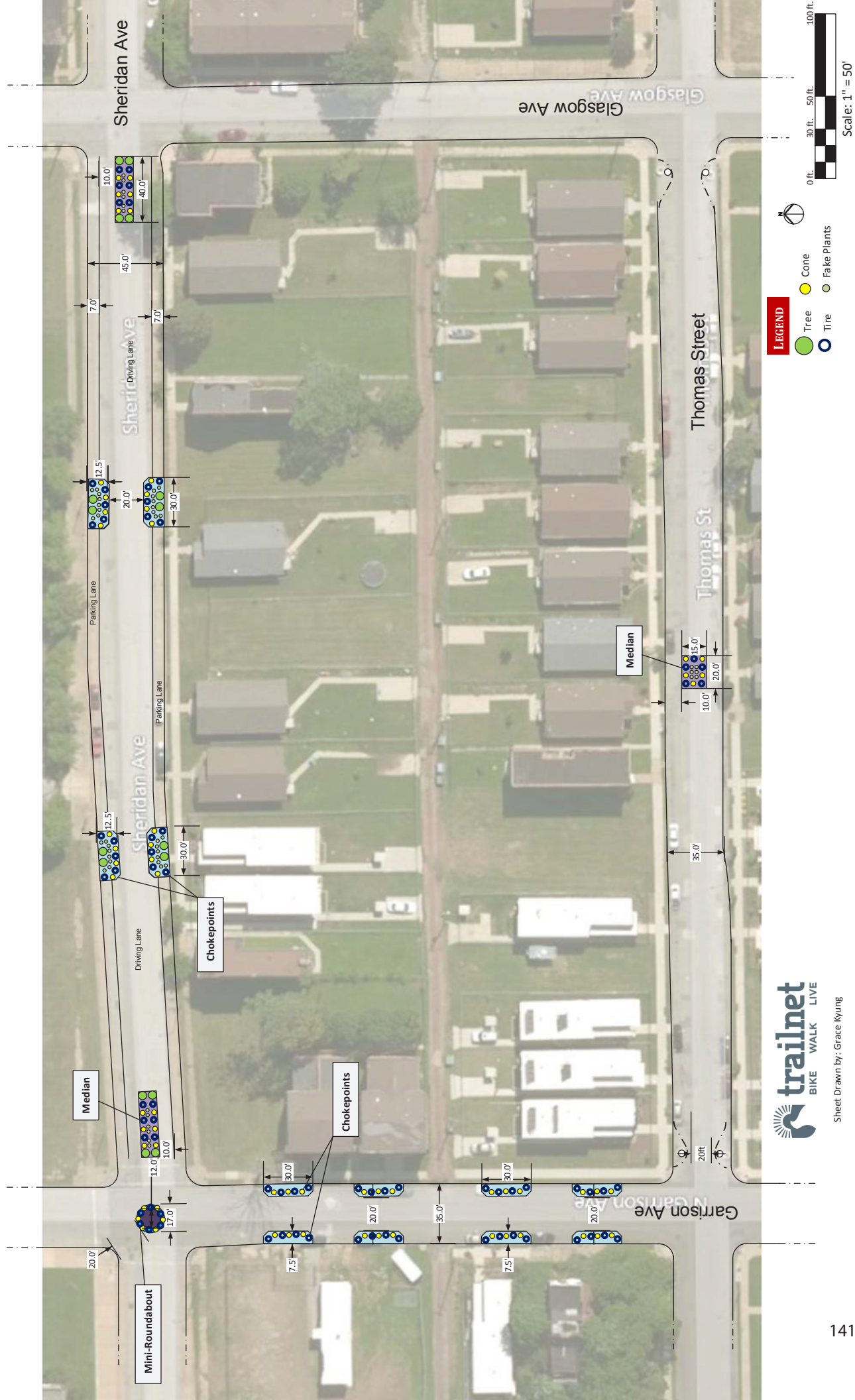


trailnet
BIKE WALK LIVE
Sheet Drawn by: Grace Kyong

The Greater Ville Site Plan



Jeff VanderLou Site Plan



Sheet Drawn by: Grace Kyung

Survey Template

As part of a neighborhood traffic calming demonstration, **the ORGANIZATION** wants to know how you feel about traffic safety in your neighborhood. Please answer the following questions about **LOCATION**. All answers are anonymous.

How do you feel about the following statements?

	Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
The traffic feels safe at LOCATION							
The corner of LOCATION							
It is easy to cross the street at the corner of LOCATION							

What do you think are the chances of the following things happening at **LOCATION** today?

	Highly unlikely	Unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Likely	Highly likely
People will drive over the speed limit.							
People driving will not stop at the stop signs.							
Someone driving will crash their car or hit a person walking or biking.							
Someone driving will almost crash or hit a person walking.							

Are there other traffic safety issues you have seen? Please explain:

Thank you for your time!

Please return this survey to **LOCATION**.

Stop Recording Datasheet

Name: _____

Intersection: _____

Date: _____

Event: _____

Time: _____

to _____

Instructions: Tally the number of complete, rolling and no stops you observe. Add up the tallies and record the total at the bottom of the table. For more information on each stop category, view the definitions listed below.

<u>Complete Stop</u>	<u>Rolling Stop</u>	<u>No Stop</u>
Total Complete Stops: ____	Total Rolling Stops: ____	Total No Stops: ____

Definitions

- Complete Stop: Person driving comes to a complete stop before the stop sign with no forward momentum.
- Rolling Stop: Person driving briefly stops before the stop sign, but the vehicle is still in motion and moving less than 5 mph.
- No Stop: Person driving does not decrease speed and drives through stop sign.

TRAFFIC CALMING RESOURCES

AARP, Traffic Calming: A Livability Fact Sheet -

<http://www.aarp.org/content/dam/aarp/livable-communities/documents-2014/Livability%20Fact%20Sheets/Traffic-Calming-Fact-Sheet.pdf>

American Public Works Association, Design Guidelines for Traffic Calming Measures -

[http://www.apwa.net/documents/email/designguidelines/Design%20Guidelines%20for%20Traffic%20Calming%20Measures\(imperial\).doc](http://www.apwa.net/documents/email/designguidelines/Design%20Guidelines%20for%20Traffic%20Calming%20Measures(imperial).doc)

City of Spokane, WA - Traffic Calming Program

<https://my.spokanecity.org/neighborhoods/programs/traffic-calming/>

Kansas City, MO - Traffic Calming Devices -

<https://data.kcmo.org/download/5eig-5uia/application/pdf>

NACTO, Urban Bikeway Design Guide - Speed Management -

<http://nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards/speed-management/>

NACTO, Urban Street Design Guide -

<http://nacto.org/publication/urban-street-design-guide/>

NACTO, Urban Bikeway Design Guide -

<http://nacto.org/publication/urban-bikeway-design-guide/>

Portland Bureau of Transportation, Traffic Calming Resources -

<https://www.portlandoregon.gov/transportation/68413>

Project for Public Spaces - Traffic Calming 101

<http://www.pps.org/reference/livememtraffic/>

Street Plans Collaborative, Tactical Urbanism Projects -

<http://www.street-plans.com/tactical-urbanism-projects/>

Street Plans Collaborative, Tactical Urbanism 1 -

https://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol.1

Street Plans Collaborative, Tactical Urbanism 2 -

https://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol_2_final

Traffic calming examples from Pottstown, PA -

<http://www.saveourlandssaveourtowns.org/parking.html>

U.S. Traffic Calming Manual By: Reid Ewing , Steven Brown -

<https://conference.planning.org/publications/book/9026718/>



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