

Where the Duct Tape Meets the Road: Using Pop-Ups to Promote Safe Routes to School

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Agenda

- **Why St. Louis?**
- **St. Louis Plan4Health Project**
- **Slow Your Streets: A How-To Guide for Traffic Calming Review**
- **Impact**
- **Resources**
- **Questions**

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A photograph of a residential street. On the left, there are houses with a sidewalk. In the center, a paved road leads towards a brick building. A stop sign is visible on the right side of the road. The sky is blue with some clouds.

In the U.S. pedestrian fatalities went up by **9.5%** since 1996.

In the U.S. cyclist fatalities went up by **12.2%** since 1995.

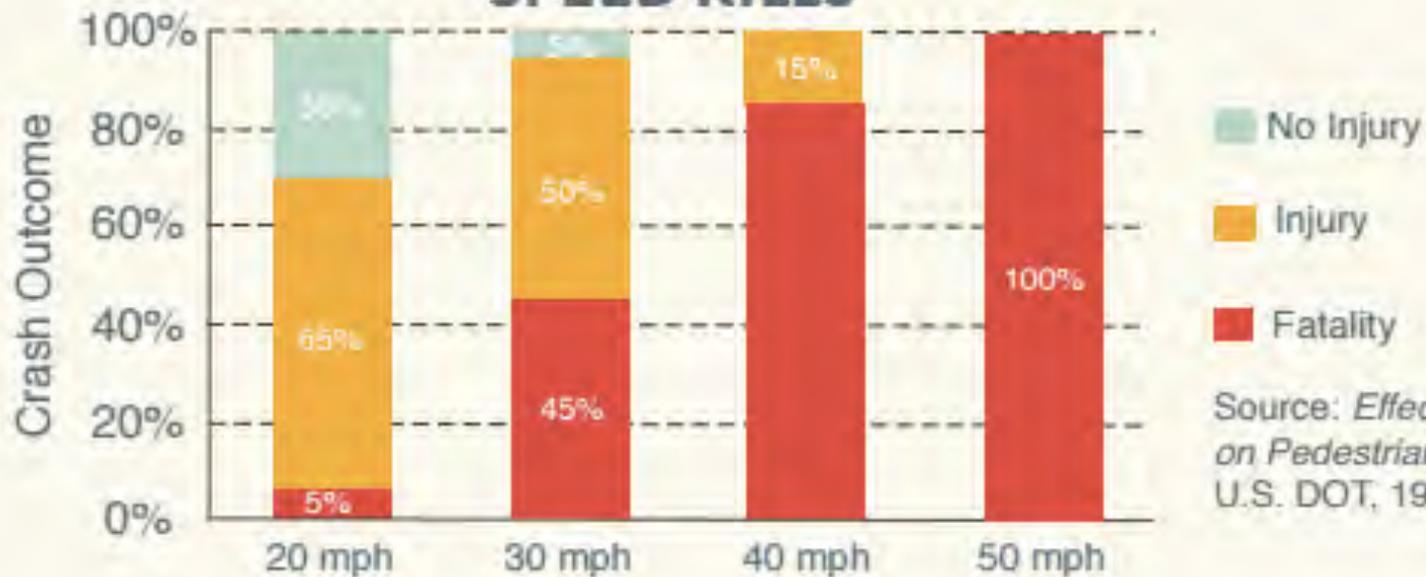
In the U.S. **12%** of fatal traffic crashes involve people who were walking.

In the City of St. Louis that figure is **36%**.

27% of City of St. Louis residents report **NO** leisure time physical activity.

While **80%** of City residents live within a half mile of a public park.

SPEED KILLS



Source: *Effect of Impact Speed on Pedestrian Fatality and Injury*
U.S. DOT, 1999



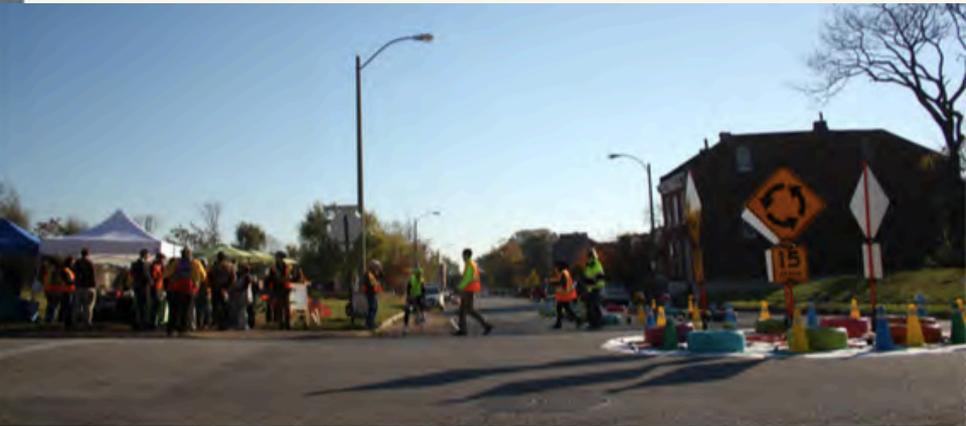
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BIKE WALK LIVE

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SLOW YOUR STREET

A HOW-TO GUIDE
FOR POP-UP TRAFFIC CALMING



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Planning Process



Defining Success



Determining Stakeholders



Community Champions



Community Engagement



Media Strategy



How to Share the Story

Promotional:

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

Extended Cut:

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

Site Selection Key Principles

- Purpose of Demonstration
- Purpose of Street
- Ownership of Street and Existing Code
- Parking
- Street Width
- Speed Limit
- Traffic Flow
- Crash Data
- Surrounding Land Use



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

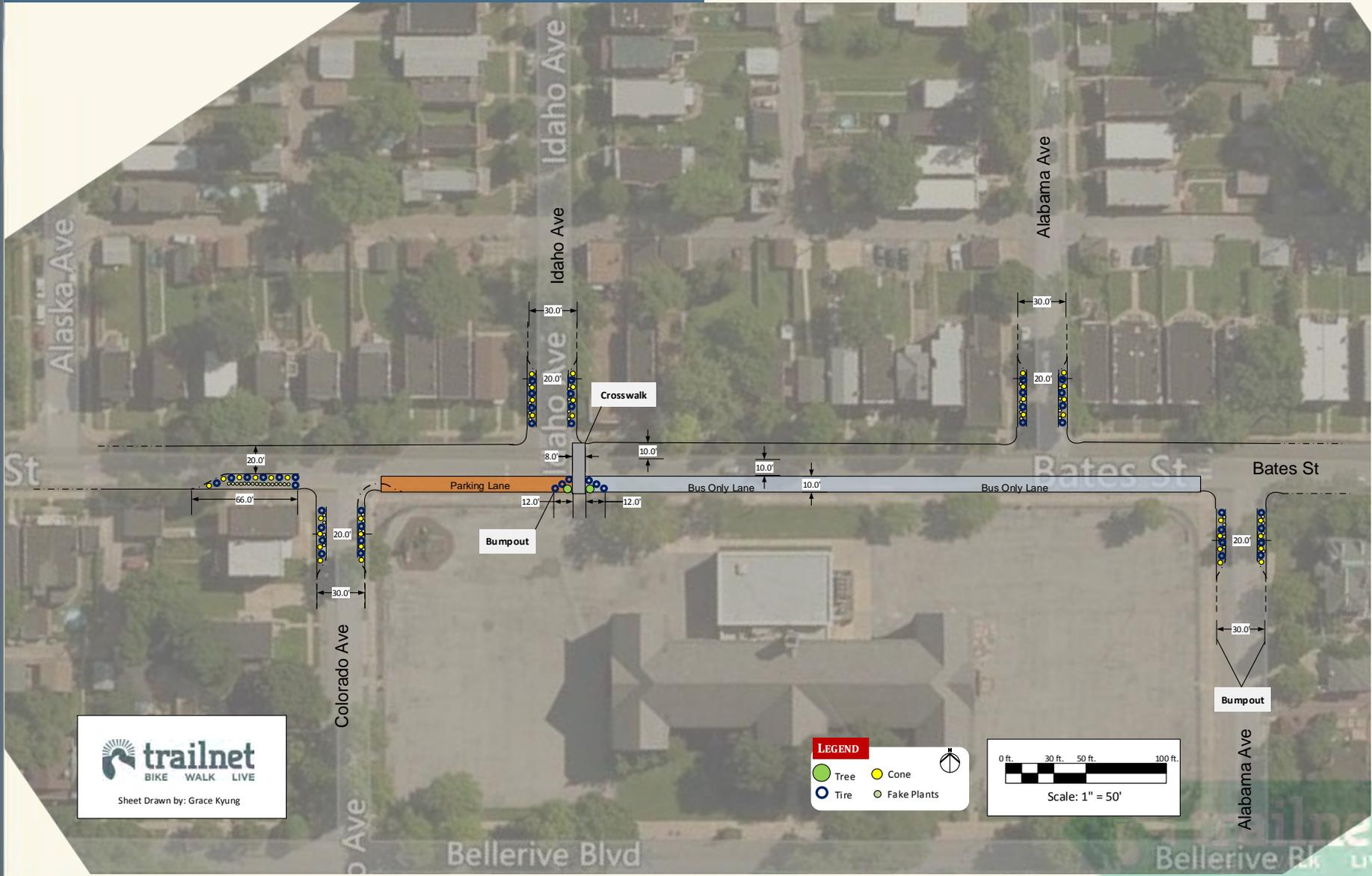
Pinchpoints have extended curbs that make driving lanes narrower. The extended curbs can be used for planters or benches.



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Site Plan Example



Sheet Drawn by: Grace Kyung

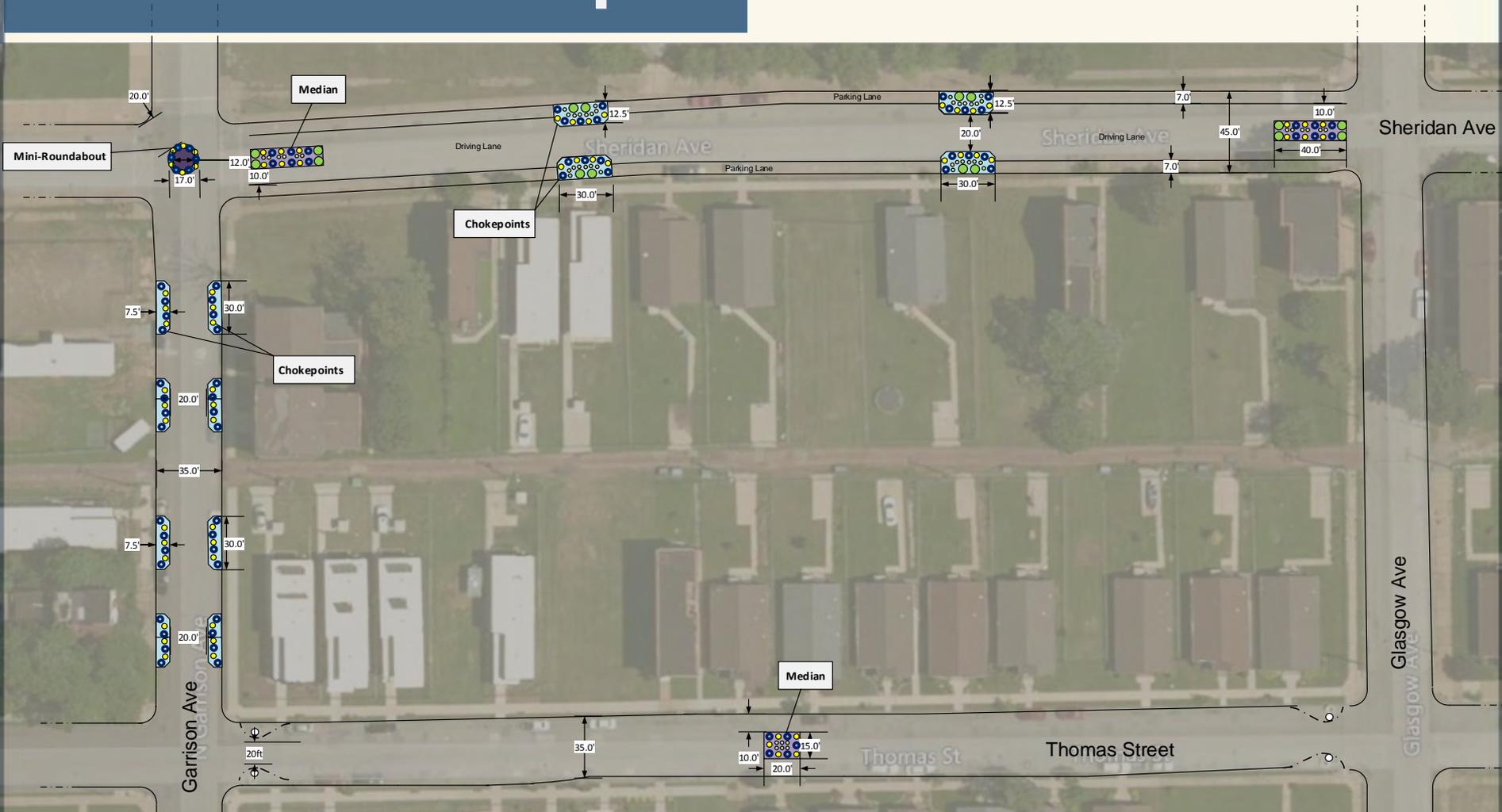
LEGEND

- Tree (Green circle)
- Cone (Yellow circle)
- Tire (Blue circle)
- Fake Plants (Grey circle)

Scale: 1" = 50'



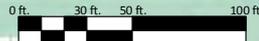
Site Plan Example



Sheet Drawn by: Grace Kyung

LEGEND

- Tree
- Cone
- Tire
- Fake Plants



Scale: 1" = 50'



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 choose to use felt roofing tar paper
- The cheapest white gallon 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 block 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.



GETTING READY TO PAINT THE TEMPORARY CROSSWALK



PAINTING THE TEMPORARY CROSSWALK



TEMPORARY CROSSWALK INSTALLED

Mini-Roundabout

To create 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 circles that slow 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.

Lending Library



Logistics



Set Backs



Demonstration Tips & Reminders

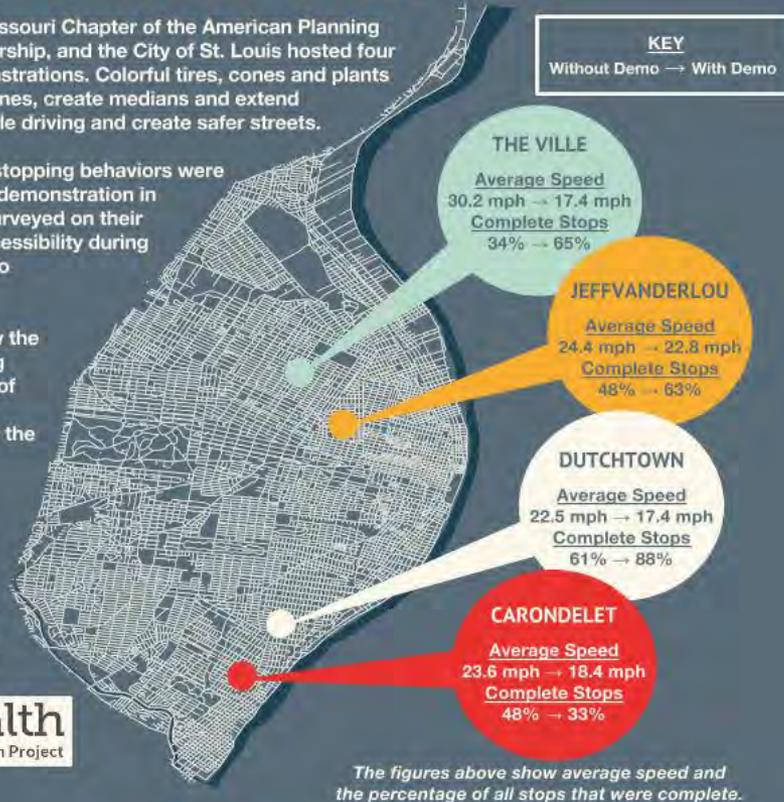


TRAFFIC CALMING DATA RESULTS

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.



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



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Impact



City Bike/Ped Coordinator

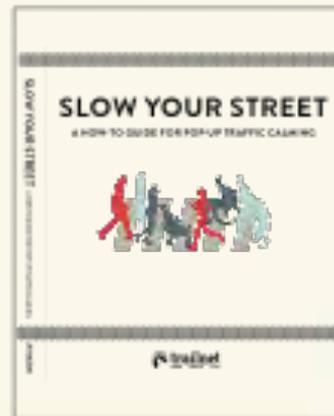
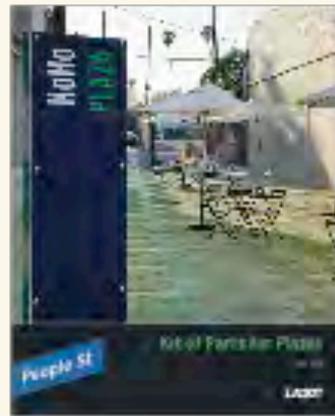
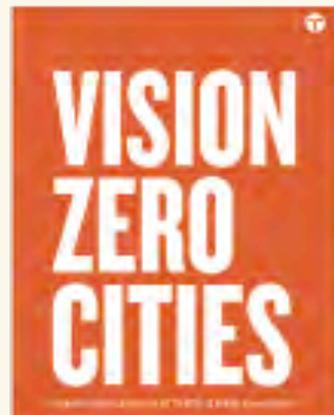
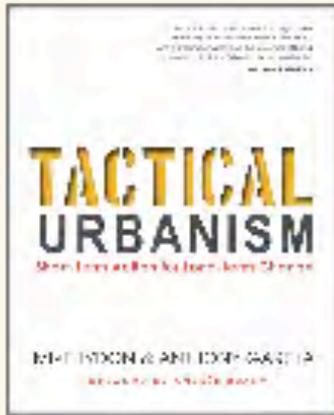
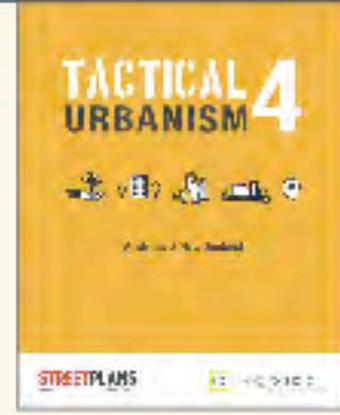
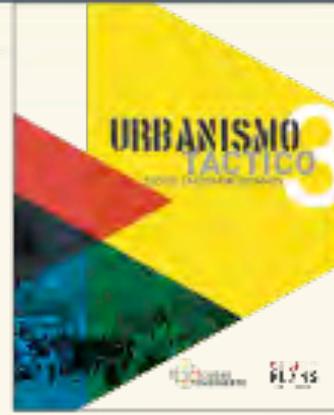


City of St. Louis Mayor

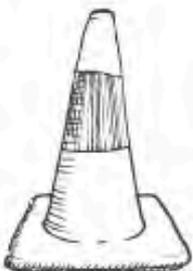
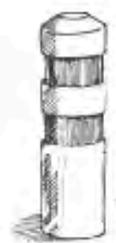
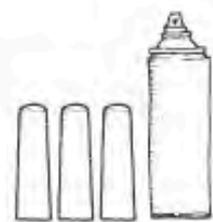


Community Member
(lifelong)





Slide Credit: The Street Plans Collaborative



TACTICAL URBANIST'S GUIDE TO MATERIALS AND DESIGN

OCTOBER 2016 | CREATED BY THE STREET PLANS COLLABOARTIVE, WITH FUNDING FROM THE JOHN D. AND JAMES L. KNIGHT FOUNDATION.

Resources

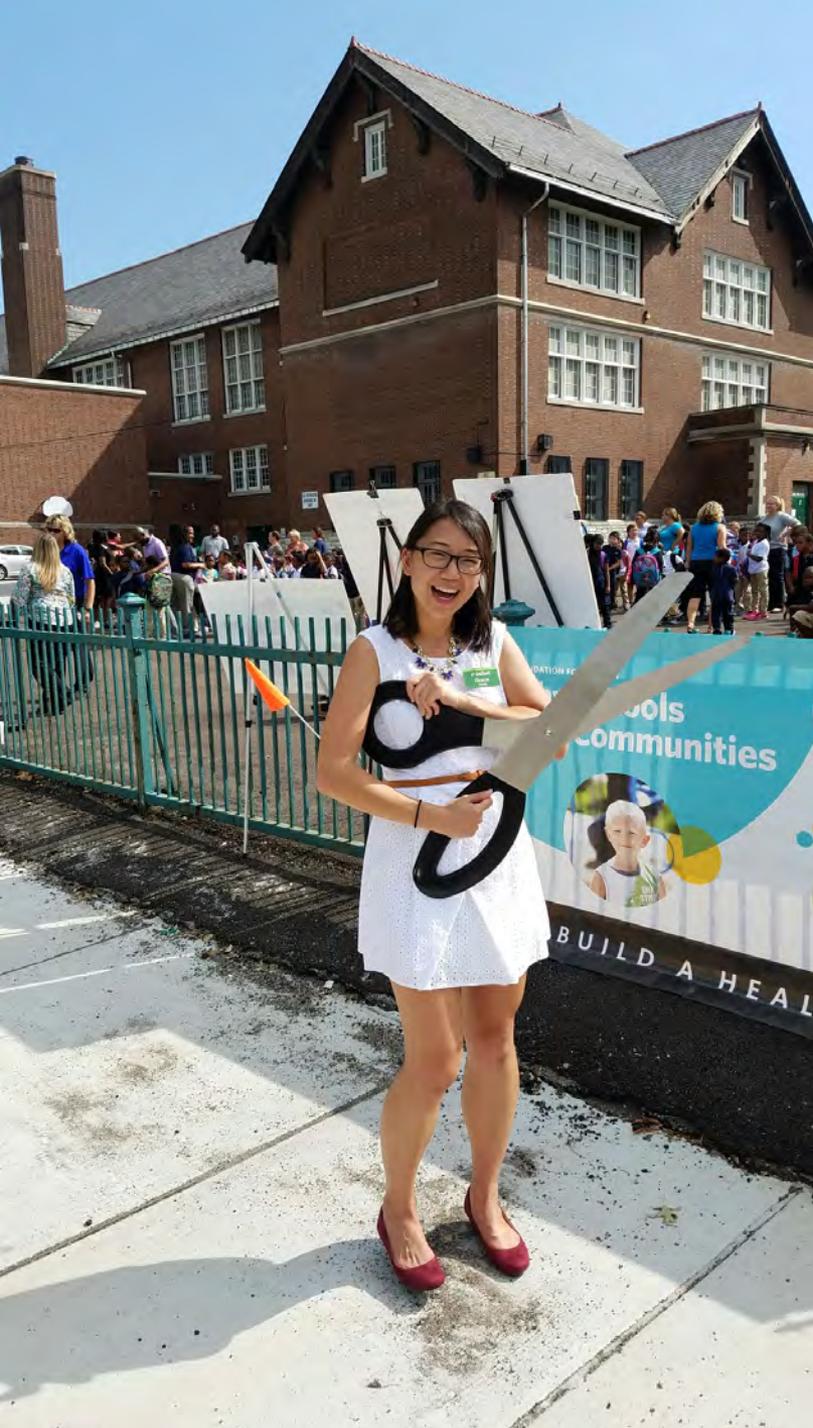
Slow Your Street: A How-To Guide for Pop-Up Traffic Calming – <http://bit.ly/1rh6LPj>

Trailnet Plan4Health -
<http://trailnet.org/work/transportation-planning/plan4health/>

Plan4Health – <http://www.plan4health.us/>

Planners4Health –
<https://www.planning.org/nationalcenters/health/planners4health/>





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