

Community Streets

White Paper

Prepared for the City of Syracuse
October 2019



COMMUNITY STREETS WHITE PAPER

Prepared by the SMTC for the City of Syracuse

October 2019

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Introduction

Capital projects take time. Developing designs, getting approvals, conducting public outreach, finding funding, and putting the project out to bid can take years. It is a process that can test the tenacity of neighborhood groups and other advocates who want to see an improvement on their block or on a frequently-used street. Over the past decade, more and more cities around the country have been using temporary projects, ranging in duration from a day to a couple of years, to give transportation ideas a test run. In most cases, this “tactical urbanism” approach is centered around an improvement to bicycle or pedestrian facilities, like curb extensions, protected bicycle lanes, and crosswalks – things that improve safety and the quality of life in a neighborhood.

Starting with a temporary project lets everyone see whether or not an idea would work in practice, and can spur more discussion of an idea’s pros and cons than would normally take place during the standard public involvement process.

As part of Safe Streets Syracuse, the City of Syracuse is developing a Community Streets program – a formal approval process that will empower residents and community groups to develop and install short-term projects in the public right-of-way. Safe Streets Syracuse is a series of initiatives designed to increase safety, with a focus on the needs of pedestrians, cyclists, and transit users. This will include speed limit reductions, signal timing adjustments, and access management standards. The Community Streets program will give residents a way to demonstrate how well their ideas for improving streets in their neighborhoods would work.

This white paper compiles information from around the country and presents background and recommendations on:

- A process for reviewing and approving citizen-sponsored pop-up projects,
- Ideas for ensuring that pop-up projects comply with federal regulations on signage and design,
- Ideas for handling traffic during project installation – including proposed modifications to the City’s block party permit, and
- A set of project types, with recommended “levels”, siting characteristics, and evaluation methods.

By developing a process that community groups can follow to see their ideas become reality (even if only temporarily), the City can see the results of innovative street projects without going through a lengthy capital project development process.

Terminology

AADT: Annual Average Daily Traffic. The average number of vehicles using a street or street segment in a normal weekday.

AASHTO: American Association of State Highway and Transportation Officials, the organization that sets the design standards for roads in the United States.

Capital Project: A project on a public facility with a life expectancy of three or more years, to be owned and operated by or on behalf of a governmental unit and purchased or built with direct appropriations from the governmental unit.

City: Rather than specify a department or referring to “staff within the City of Syracuse department taking the lead on the Community Streets project”, this paper refers to all City of Syracuse staff and departments as the City. It is assumed that the Department of Public Works will be the City’s lead department in this process.

Demonstration Project: a long-term temporary project, installed for between one week and two years, intended to help the City evaluate a proposed improvement before finalizing designs for a capital project. For the purposes of this guide, demonstration projects are temporary projects installed by City forces, rather than residents / non-City employees. (Demonstration projects are not the focus of this white paper.)

FHWA: Federal Highway Administration.

Guerilla Urbanism: a change made within the public right-of-way and intended to achieve an improvement for the public, but installed without the municipality’s consent.

MUTCD: *Manual on Uniform Traffic Control Devices*. The FHWA’s standards for all forms of traffic control devices, including pavement markings, signs, and traffic signals. The MUTCD is the standard against which all forms of traffic control are judged, whether they are permanent or temporary. The MUTCD also includes standard traffic control measures to be used during construction projects and temporary lane or roadway closures.

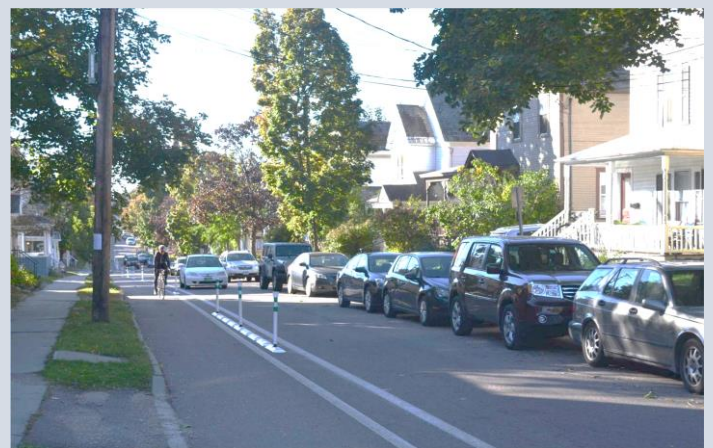
Pop-Up Project: a temporary transportation¹ project in the public right-of-way, installed in a few hours, and typically lasting between one day and six months, that is designed, developed, and installed by members of the public, using removable/portable materials such as rubber curbing, AstroTurf, spray chalk, and cones. Pop-up projects can also include alterations that are long-term / permanent and maintained by community members, such as painted curb extensions or intersection murals.

Project Sponsor: the person, organization, or business that leads a pop-up project.

Demonstration Projects

Demonstration projects – long-term temporary projects put in place by a municipality – are not covered in detail in this document. Demonstration projects have the advantage of being part of a City’s planning/design framework, and can rely on resources that are not readily available to residents and community groups. As such, a process for reviewing these projects is not as complicated as a process to accept ideas from residents. The *Tactical Urbanist’s Guide to Materials and Design* is one of the few design resources available for long-term temporary projects.

In Vermont, the City of Burlington’s Old North End Greenway project is a long-term, but temporary, experiment in providing protected bike lanes and sharrows across the city. Unlike a citizen-led effort, this demonstration project uses materials that can be secured to the pavement, such as flexible lane delineators. The Old North End Greenway project was installed in the spring of 2018 and is intended to remain in place for up to five years.



Old North End Greenway, Burlington, Vermont

¹ “Pop-up projects” can refer to a wide variety of projects and installations, but for the purposes of this paper the discussion is limited to projects that involve the transportation system.

Public: non-City staff, including city residents, neighborhood organizations, and members of advocacy and religious organizations. (City staff can act both as members of the public and as members of the City government.)

Tactical Urbanism: planning, design, and/or implementation of an improvement by members of the public within the public right-of-way outside of the traditional capital project process but with the facility owner's knowledge and consent. Tactical urbanism can refer to pop-up projects and demonstration projects, whether designed and installed by members of the public or the municipality.

Policy and Process Overview

One of the ideas behind the development of a procedure for approving pop-up projects is that it is in the City's best interest to support and encourage citizens who want to invest the time and energy into improving public facilities. If the City felt that this was a generally undesirable activity, it could either prohibit it outright, or discourage tactical urbanism by not acknowledging it as a legitimate activity. The City is under no obligation to allow residents to alter any element of the public right of way. Developing a process to approve citizen-led projects suggests that the City perceives these projects as beneficial. If this is the case, the City has an interest in acting as a partner rather than an adversary.

Assuming that the City is inclined to promote tactical urbanism, the process and guidelines should, to the greatest extent possible, be:

- Easily understood and used by the layperson,
- As inexpensive as possible,
- As transparent as possible, and
- Customer service-driven.

Project Elements

The main purpose of a pop-up project review process is to reach and document a meeting of the minds between the City and the project sponsor on the key elements of a project, specifically:

- The project's purpose,
- Level of community support and the project sponsor's efforts to engage stakeholders,
- The project location and the site's characteristics,
- Design details, including materials and MUTCD compliance,
- Project installation strategy – especially traffic control and volunteer safety,
- Project evaluation strategy – how, when, and by whom data will be collected to demonstrate that a temporary project should become permanent and/or be replicated elsewhere in the city,
- Timing for the installation, maintenance, and removal of the project, and
- Timing and format for reporting the project's results (if applicable).

A formal process ensures that there is a paper trail, that decisions are being made fairly and not capriciously, and builds up a project library that can serve as a useful resource in the future.

In addition to the public-facing process, the City must establish a process by which projects will be reviewed internally, by any public agencies or City departments whose property or operations would be affected. In the interest of a streamlined process, this should be the responsibility of the City department

designated as the lead for this process. In other cities, the police, fire, parks, and transit departments are typically consulted on project designs.

Timelines

Compared to the speed with which a well-organized group of guerillas could plan and install a project illegally, the process for getting permission for a tactical urbanism project is going to be slow and will involve numerous steps. However, compared to the timeline for developing a capital project, tactical urbanism projects happen very quickly – the project can be thought up, reviewed, installed, and evaluated in the time it might take to receive responses to the RFP to hire a consultant to study a project.

Timelines provided in guidance documents:

- Burlington, Vermont: two to five months,
- Fayetteville, Arkansas: two months
- Austin, Texas' Creative Crosswalks: 30 days to review application plus staff review prior to scheduling installation, and
- Chicago DOT, "Make Way for People": three months.

It is important to convey a realistic timeframe to project sponsors, who may be expecting to implement a project within a few days of developing the idea for it. Additionally, project sponsors should be made aware that, in addition to review of their project's design, they may need to apply for a street closure permit (such as a Block Party Permit or, preferably a new "Community Streets Event Permit" developed as part of this program). The City currently requires that Block Party Permit Applications be filed a month prior to the event.

Program Benefits

Lighter, Quicker, Cheaper

The main benefit of a tactical urbanism project designed to meet a need in a neighborhood is that it gives the City and citizens a way to explore design options at a minimal cost. Tactical urbanism projects have low budgets and require minimal staff resources, but can yield valuable data and stakeholder feedback on a project.

Community Building

Some pop-up projects lend themselves to tie-ins with community building efforts. In Portland, Oregon, intersection murals are viewed (officially) not as traffic calming but as community building tools. The website for Portland's City Repair group describes intersection murals as "a very powerful community building strategy offering ... many emergent benefits." It goes on to say that "Often, people initiate a project to slow down traffic but stay committed to the project because of all the wonderful things we see happening as a result of intersection paintings."²

Increased Public Participation

Public participation in local government planning meetings is notoriously hard to come by. Typically, only a small fraction of the people who live in a neighborhood will take the time to attend a meeting about a possible project. Tactical urbanism projects turn this participation problem on its head, by bringing the

² Source: <https://cityrepair.org/faqs>, accessed, September 24, 2019.

project to the people using the street, showing drivers, pedestrians, and transit riders what it could do for the facility, and asking people for their input in the moment. Issues that might be overlooked in a normal planning process – such as the importance to a stakeholder of a specific on-street parking location – can be identified quickly once a pop-up project is in place.

Key Considerations for a Tactical Urbanism Project

Project Purpose

The project approval process must prompt the project sponsor to clearly state the objective behind the proposed project. Understanding what the project sponsor hopes to demonstrate or accomplish with a project can make it easier for the City to provide input on possible project sites, project duration, appropriate materials, and even alternative (or additional) project types. City staff can discuss a range of options at this stage, selecting an appropriate project scale with the project sponsor.

The key question for most cities is not whether or not a given project is justified, based on things like accident rates or current speeds, but whether or not it can be safely installed by the project's sponsor given their resources (i.e., number of volunteers, funding level, partnerships, level of expertise/experience with similar projects, etc.) and the site in question. Site criteria can and should be well-defined in the permitting process, according to the City's preferences.

Some cities limit the kinds of projects they will allow citizens to install. For example, Chicago's People Places program is limited to parklets. Los Angeles' People St program allows pedestrian plazas, parklets, and bike corrals. Burlington's guidance provides information for a set of "pre-approved" projects but states that the city is open to considering any reasonable request. While most cities require or strongly suggest doing data collection prior to the installation of a project, to generate baseline data, the cities that have a tactical urbanism permitting process typically do not request that project sponsors back up their project purpose with hard data.

Project Sponsor

In other cities, project sponsors have included the following:

- A concerned individual (with support from friends),
- A non-profit organization, particularly one with a focus on bicycle/pedestrian or community health issues,
- A school-based or neighborhood-based group, and
- Two or more groups working together.

Groups organized specifically to support bicycle and pedestrian facilities are by far the most active supporters of tactical urbanism projects around the country. In Burlington, non-profit advocacy group Local Motion was the catalyst for the development of the City's "Community-Led Demonstration Project Policy and Guide". The presence of a well-organized advocacy group in a community can provide an example and resources for other residents who are interested in developing projects.

Public awareness

Branding

As of this writing, pop-up transportation projects are unusual in the Syracuse area. There will doubtless be lag time between the point at which the City announces its “Community Streets” program and the point at which the general public recognizes individual projects are part of that program. In order to make the connection more visible, the City should consider developing a logo, font, and vocabulary that will be used consistently in community streets projects (see Figure 2 for examples from other cities). Project sponsors should be encouraged/required to use “branded” materials when issuing project notifications, FAQs, petitions, on-site signs, surveys, and other information. This will make it easier for members of the public to see that a given installation is sanctioned by the City and may make it easier for them to learn more about the program as a whole.



Figure 2 – Project / program logos from other cities

Social Media

While not a part of the project planning and approval process, project sponsors should be made aware of the importance of attracting attention to their project through social media. A relatively small proportion of city residents will see or drive through a project that is in place for a few days, but a project sponsor can use the project as an opportunity to draw attention to an issue and to their proposed solution. Project sponsors can use Facebook, Instagram, Twitter, YouTube, Vimeo, and other social media to let neighbors and other stakeholders know that a project is planned or has been installed, and give people an additional opportunity to comment. Denver-based non-profit WalkDenver uses short [videos](#) to document its larger pop-up projects, ensuring that residents and decision-makers can see a project in action beyond a one-day installation. Social media can also help attract volunteers to project installation events.

Public Support vs. Notification

One of the reasons for implementing a short-term change on a street is to gauge public reaction to the change once people can experience driving, walking, and/or biking through it. *Requiring* widespread support as a condition for implementing these projects would be impractical. However, in the case of a long-term change, such as an intersection mural painted with permanent paint, or some short-term changes, like a parklet that will utilize on-street parking spaces in a commercial area, projects can have an

impact on adjacent properties. Many cities require that project sponsors post a pre-project notification on the site of their proposed project.

San Francisco's Places for People program requires applicants to:

- Notify nearby property owners that they intend to *apply for a* permit,
- Post the site with their submitted "People Place Permit" for a minimum of 10 days, and
- Include "Proof of Public Posting" (photos of the posted application) with the application.

This level of outreach does not seem appropriate to our region, but it underscores the importance of providing notice to nearby properties.

Resources and Partnerships

It is important that both the City and the project sponsor be clear about the resources that the project sponsor can bring to the project. The number of volunteers that can be mobilized for project installation, the amount of money available for materials, and the degree to which the project idea is supported by other community organizations are all important variables. The City should discourage project sponsors from applying for permission to install projects that require more resources than are available.

At the same time, the City may be able to steer applicants toward sources of funding or toward partnerships with other organizations. Possible funding sources and partners include:

- TNT Special Projects fund: Each of the City's eight Tomorrow's Neighborhoods Today (TNT) sectors has a budget of \$5,000 to be awarded to Special Project Proposal ideas generated by residents. The program's guidelines recommend that projects promote empowerment, community cohesion and a safe, clean physical environment – most tactical urbanism projects would intersect with these goals.
- Central New York Community Foundation: The Community Foundation's Community Grant Program supports innovative projects that demonstrate sustainable outcomes and measurable results. (Securing this funding would require partnering with an existing non-profit organization.)
- Gifford Foundation: The Gifford Foundation's "What if..." mini-grants program seems particularly well-suited to pop-up projects; they are small grants (under \$5,000) that can be used for festivals, art projects, and projects that promote a safe physical environment. Some pop-up projects may incorporate all three of these things.
- American Association of Retired Persons (AARP): the AARP publishes *The AARP Pop-up Demonstration Tool Kit*, a tactical urbanism guide intended to help local chapters advocate for walkability through pop-up projects.

Civic crowdfunding sources, such as ioby, Patroncity, and Spacehive have facilitated fundraising for tactical urbanism projects across the country, including protected bike lanes in Denver and the 78th Street Play Street in Queens.

Site Features

In some cases, the project sponsor's idea for where to install a project will not be negotiable – the basis for the project idea will be an improvement at a specific location. Where possible, however, the City should work with the project sponsor to install projects on the lowest-volume street that is practical.

The City must convey to the project sponsor that project complexity will vary with site characteristics. Higher traffic volumes, bus routes, fire hydrants, utilities, and driveways make a project site more complicated.

Additionally, if the purpose of a project is to improve pedestrian or bicycle access, locations that are already attractive to cyclists and pedestrians are going to have a greater impact and attract more use. Because most pop-up projects have a short duration, it is in the project sponsor's best interest to site them in places where there is support and excitement from nearby property owners and other stakeholders.

Specific site elements that can make project approval easier include:

- Shoulders, on-street parking, or curbside space that can be used to store supplies and stage the project's installation.
- Existing pedestrian/bicycle infrastructure that can be upgraded. Adding temporary bump-outs to an existing mid-block crosswalk is significantly easier (in design terms) than adding a temporary mid-block crosswalk.
- Limited curb cuts for driveways.
- Minimal conflict with transit, garbage collection, or emergency vehicle response.
- Absence of construction projects in the vicinity.
- "Uncomplicated" topography that provides long lines of sight.

Duration

The project's purpose, materials, and complexity, as well as the site's characteristics and the project sponsor's resources, will be factors in determining how long a project can remain in place. Generally, a longer installation is better for the purposes of evaluating a project's effects: more people will use the facility, more people can provide their input via on-site and online surveys, and more hard data can be collected. All of this data can help demonstrate the need for and usefulness of a project. At the same time, longer duration projects will (in most cases) have higher costs in both materials and volunteer time.

One- to three-day long installations can include less durable materials (such as hay bales and cardboard signs) and can more easily be installed on higher-volume roads, but they may not give roadway users time to adjust to new traffic patterns or roadway conditions. Streets with pop-up bike lanes that only last a day may not see more use than normal if cyclists are not aware of them. Macon, Georgia's five-mile pop-up bike network was in place for two weeks (and was accompanied by a lot of media attention), which gave casual cyclists time to find and use it. New Orleans' Connect the Crescent pop-up bike lanes were in place for three months – which meant more time to collect survey results and other data. But because the Connect the Crescent project was planned to be in place for a long period of time, the project's sponsors made a conscious decision to use traffic tape (installed with a special machine) rather than non-permanent paint, which meant a significantly higher installation cost.

Constraints on a pop-up project's duration can include:

- Weather that deteriorates / destroys temporary materials,
- Adverse impacts to stakeholders (for example, loss of on-street parking),
- Lack of resources to maintain a project, and
- Lack of resources to continue measuring outcomes beyond a point in time.

Design

Design sophistication will vary from one project sponsor to another. WalkDenver's pop-up projects are often sketched out using circles, squares, and triangles placed on an aerial using MS PowerPoint. Vermont's Local Motion gets pro bono design services from an engineering firm. The degree to which the City requires AASHTO/MUTCD compliance will vary with the project type. Some frequently-used types of pop-up projects do not technically involve traffic controls: intersection murals and curb extensions (as long as they stay out of crosswalks) are not subject to the MUTCD.

Design Guidance for Tactical Urbanism Projects

- *Tactical Urbanist's Guide to Materials and Design – Version 1.0*, Street Plans Collaborative, 2016
- *Urban Bikeway Design Guide, Second Edition*, NACTO, 2014
- *MUTCD, 2009*, FHWA

The design of a pop-up project is, necessarily, a compromise between official standards and what can be achieved by volunteers working with materials like hay bales and old tires. The City must do its due diligence to ensure that all vehicles are able to use public streets safely during pop-up projects. At the same time, the City must be able to tolerate some non-standard elements for short periods of time in order for this program to be implemented. City departments should establish what elements will not be tolerated in tactical urbanism projects and let potential project sponsors know what ideas are off-limits.

Most cities allow pop-up project designs to be rudimentary: a design on an aerial is typically considered adequate, with additional details to be added during discussions between the City and the project sponsor. The design shown in Figure 5 was developed by WalkDenver staff using PowerPoint and a Google Map aerial, and it was the basis for a fairly complex one-day pop-up project on a busy arterial (see the "Busy Streets and Pop-ups" sidebar on page 19). The City of San Francisco's Places for People program is unusual in that it specifies that designs be drawn to scale (by hand or digitally) and submitted as an 11x17-inch PDF.



Figure 5 – Design for a WalkDenver pop-up project that incorporated a median refuge, curb extensions, and protected bike lanes

Compliance with Federal Design Standards

Over the past 10 years, the FHWA has begun pushing back against some cities' inclination to turn crosswalks into political or artistic statements (for more details, see Appendix B). In two open letters (in 2011 and 2013), the FHWA articulated the idea that crosswalks are traffic control devices with very specific design characteristics. The FHWA's opinion is that, with a few exceptions, crosswalk designs should not deviate from the specifications laid out in the MUTCD. Cities have responded in various ways to the FHWA's guidance – some cities have gone ahead with “creative crosswalks”, while others have cancelled plans to install crosswalks that they perceived as running counter to the MUTCD. The City of Syracuse may at some point have to make a determination on whether or not to abide by the letter of the MUTCD when it comes to crosswalk design.

The following points are presented for the City's consideration:

- The crosswalk is a highly-regulated, relatively small piece of the public right-of-way with an important safety function.
- According to the FHWA, the MUTCD applies to all public roads and streets in the United States, regardless of ownership or functional class.
- Determining whether or not a creative crosswalk design is MUTCD-compliant can be difficult and subjective, even given the FHWA's extensive guidance.
- Allowing non-MUTCD-compliant crosswalk art does not appear to come with serious consequences. In some cases, city officials have been officially reprimanded by the FHWA officials in their area. The threat of lost federal funding is one of the few levers the FHWA has at its disposal, but cases of federal funding being withheld because of a creative crosswalk were not discovered in this research. The question of increased liability should be discussed with the City's Corporation Counsel.
- The City should encourage intersection murals that do not encroach on marked or unmarked crosswalks. Murals provide a larger space for creative designs than crosswalks, and can help define a neighborhood's gateway points.
- The City should ensure, to the greatest degree possible, that short-term projects' traffic control devices are MUTCD-compliant.
- Pop-up projects and long-term demonstration projects that add features like curb extensions and center medians should be encouraged where appropriate.

Materials

The *Tactical Urbanist's Guide to Materials and Design* provides a list of materials for projects of various durations, as well as a “toolbox” that project sponsors should keep on hand in order to make project installation easier. The toolbox items and materials for short-term projects are listed below. The City should consider developing a collection of toolbox items and materials that will be made available to project sponsors.

Toolbox

- Chalk line,
- Utility knife,
- Paint roller,
- Athletic field striper,

- Shovel,
- Tape measure,
- Pressure washer (for installation & clean-up),
- Power drill,
- Truck/moving van,
- Cinder block benches (2x4x8s positioned in concrete block voids),
- Milk crates, and
- Laser rangefinder.

Materials for short-term projects (one day to one month):

- Traffic cones,
- Flexible delineators (rubber base for easy installation),
- Cardboard cylinders,
- Traffic control barricades
- Plastic barriers (filled with water once in place to create a heavy obstacle),
- Wooden crates/planter boxes,
- Tire stacks (w/optional planting),
- Straw wattle/hay bales,
- Rubber parking stops,
- Duct tape,
- Black mats (painted for temporary crosswalks),
- Foil-backed traffic tape,
- Spray chalk,
- Sidewalk chalk,
- Stencils (e.g., sharrows, bike lanes),
- Corn starch/tempera paint,
- Pallets,
- Astro turf,
- Temporary curb ramps,
- Small trees/plants in portable pots, and
- Official traffic control signs (rented from a traffic control vendor or provided by the City).

Lending Libraries

The City should consider developing a “lending library” of tools and materials that can be checked out by project sponsors on an as-needed basis. Alternatively, the City could support another entity in the area (such as a non-profit or another municipal agency) in developing a collection that can be used for pop-up projects. Rochester and Burlington both provide examples (see the “Materials Lending Libraries” sidebar.)

Traffic Control During Installation

The idea of allowing city residents to stripe a bike lane on a street with traffic moving just feet away sounds like a recipe for disaster. Seasoned construction workers wearing safety vests and hard hats, working in well-marked construction zones, are periodically struck by moving vehicles, sometimes with tragic results. However, no reports of people being injured while installing pop-up projects were found in this research, probably because traffic control, timing, and site selection are built into the project application process.

Timing of installation and removal

While not explicitly required, it seems to be the case that many pop-up projects are installed on Saturday mornings and removed either on a Saturday night or on a Sunday, when traffic volumes are (on most streets) lower than normal. This is also when most volunteers are likely to be available and, if a community-building event is going to be part of the project, when most neighborhood residents will be available to participate. The City should encourage project sponsors to use weekends for project installation and removal.

Flaggers and Equipment

Some cities prefer not to close streets to traffic during pop-up project installations. In Burlington, it is not unusual for the City to provide staff to monitor traffic control to ensure that volunteers are safe: intersection improvements (such as a pop-up crosswalk) are often done by closing a third of an approach at a time. In Denver, WalkDenver frequently has to budget for a professional flagger when doing installations on high-volume streets; a flagger can cost between \$500 and \$2,000 per event. Regardless of the specifics, some basic safety protocols are followed when controlling moving traffic during an installation.

To ensure that volunteers are safe when working in traffic the City should be prepared to provide the following, preferably through a “lending library”:

- Safety vests,
- Traffic cones, and
- “Lane Closed” and “Road/Shoulder Work Ahead” signage,

Additionally, one volunteer (at a minimum) should be designated as the “safety lookout”, ensuring that cars and volunteers are aware of one another.

Temporary Traffic Control Plans

Part 6 of the MUTCD, “Temporary Traffic Control”, provides several templates that can be used and/or modified for use by project sponsors to safely exclude traffic from short-term work on low-volume streets. Figure 3 shows the MUTCD’s standard traffic control plan for a lane closure on a two-lane minor street (“Typical Application 18”). This configuration does not use a flagger – it assumes that traffic will be “self-regulating” and vehicles will yield to one another in the one-lane portion of the street.

Materials Lending Libraries

Common Ground Health

Common Ground Health in Rochester operates a small lending library for use by community groups that want to install a pop-up project.

According to staff, Common Ground Health’s materials are in use fairly frequently. Funding for these materials came through New York State’s Creating Healthy Schools and Communities grant.

Local Motion

Vermont’s Local Motion group lends out its Mobile Pop-up Demonstration Project Trailer to interested community groups. The organization’s website includes a sign-out form, a manual on the proper use of the trailer, and a primer on running pop-up projects.

Items in the trailer include:

- 60 rolls of tape (including duct tape, black tape, and reflective tape),
- Paint rollers and trays,
- Stencils for bike lanes and chevrons,
- Corn starch and food coloring (for corn starch paint),
- A chalk line,
- A hand truck, and
- Crosswalk yield signs.



Local Motion's Pop-Up Demonstration Project Trailer

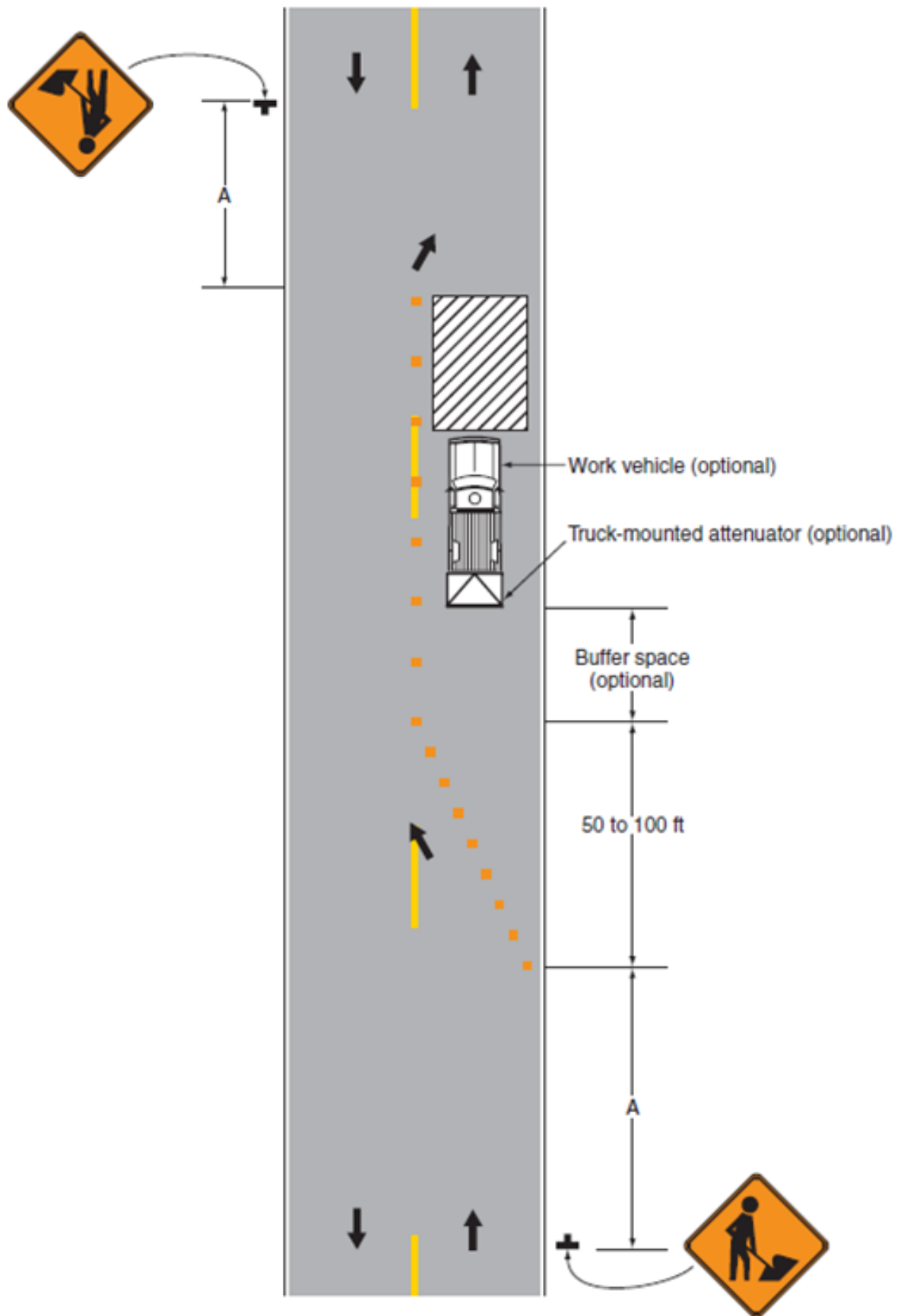


Figure 3 – MUTCD Figure 6H-18, Lane Closure on a Minor Street

Assuming that MUTCD-compliant signage and traffic cones can be provided (for example, by way of a materials lending library), and setting aside the “optional” elements, this form of traffic control is likely to be something that most project sponsors can approximate.

Excluding Traffic - Block Party Permits

In some cases, the best way to control traffic is to close a block or an intersection off to traffic completely. The mechanism for doing this has traditionally been the Block Party Permit, which allows residents to close city streets for short periods of time. The City should consider developing a streamlined process similar to the Block Party permit but tailored to pop-up projects (such as a “Community Streets Event Permit”). SMTC staff reviewed block party permit application processes in other cities and developed a set of recommendations for a revised permit process. Appendix A provides a list of these recommendations. Key points include:

- Consider providing applicants with a notification template. Portland’s Block Party Permit Application includes a notification template that is also an invitation to the block party (Figure 4).
- Other than committing to posting people at barricades, a traffic control plan is not a specified requirement. The City of Denver includes blank traffic control templates for applicants’ use to help clarify where barricades will be placed.
- If there is a minimum number of people who must be in place at any given time during a street closure (such as “one person per barricade, one barricade per approach”), applicants should be made aware that they will need to supply the required number of volunteers.
- Language related to what is allowed in the street seems overly restrictive in Syracuse’s current block party permit. The Fire Department should be encouraged to re-consider the requirement that streets be “kept free and clear” of tables, chairs, and booths. Other cities’ block party permits require that a specified horizontal clearance be maintained at all times.
- Permit progress tracking: the City of Ithaca gives applicants a tracking number to make it easier to track a permit’s status.
- Incentivize timely clean up. Binghamton requires a security deposit, which the applicant forfeits if they fail to clean up the block – this is a practical way to ensure that pop-up projects are cleaned up on time.
- Incorporate tactical urbanism ideas into the permit itself. Portland’s block party application asks if the block party is for a street painting project.
- Ensure that no cars are parked in on-street parking spaces that will be part of the installation. Some cities provide bags for meters and “No Parking – Tow Away Zone” signage and recommend placing these on-site 24 hours prior to the project’s start time.

PORTLAND IN THE STREETS

Block Party Date is: _____

We are hosting a block party!

You're Invited!

Here is a summary of our planned activities:

We will be closing this street _____ between these streets: _____ and _____

Starts at _____ AM / _____ PM Ends at _____ AM / _____ PM

If you have any questions about the block party contact us:

Contact name: _____

Phone/cell: _____

Email address: _____

Contact PBOT (503)823-4003 | pbotblockparty@portlandoregon.gov

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Figure 4 – Portland’s Block Party Notification/Invitation Template

Data Collection & Project Evaluation

In most cases, the most critical function of a pop-up project is to demonstrate the effectiveness of an idea for the public right-of-way. While it may be gratifying simply to see a long-imagined idea become reality, a temporary installation is a valuable opportunity to collect data that can be used to bolster support for the project, make adjustments to its design, or identify fatal flaws.

Data collection frequently includes both quantitative and qualitative data.

Qualitative data:

- Surveys – both on-site (intercept surveys) and online,
- Idea boards (e.g., “dot” exercise), and
- Interviews with key stakeholders.

Quantitative data (typically collected both before and after the project):

- Speed measurements,
- Counts of vehicles, cyclists, and pedestrians,
- Drivers’ compliance with traffic controls,
- Stationary activity counts (number of people standing/sitting in the project area),
- Sales figures for businesses near the project (if available),
- Cyclists’ compliance with safety regulations (helmets, wrong way riding), and
- Bicycle Environmental Quality Index (BEQI) ratings.

Project sponsors should be encouraged to compile their findings in a report, and to document their projects in other ways. Some non-profits use videos of their projects in addition to before and after photos to document the project’s effects. Combining photos and videos with social media and/or a project website can help give a temporary installation a long-term impact.

Online examples of post-project reporting include:

- Connect the Crescent website
<https://connectthecrescent.com/>
- Fayetteville, AR “Mini-Roundabout Pilot Project Report”
<https://ar-fayetteville2.civicplus.com/DocumentCenter/View/12580>
- “Burlington BP15(17) Winooski-Howard-St. Paul Intersection Scoping Study”
<https://www.burlingtonvt.gov/DPW/Winooski-Howard-St-Paul-Intersection-Scoping-Study>
- WalkDenver’s “13th Avenue Pop-up Traffic Calming Demonstration”
<http://www.walkdenver.org/wp-content/uploads/2019/01/13th-Ave-Pop-Up-Report-FINAL.pdf>

On-site Project Inspection

The City’s application process should identify whether or not a project inspection will be required. Some cities require inspections during project installation, to ensure that what was approved in the application is what is being installed. This may not be necessary for Type I projects, but should be included as part of the process for Type II and III projects (see “Project Levels”).

Recommendations

Across the country, only a handful of examples were found of formal processes for approving tactical urbanism projects. The draft process described below is based on processes found in other cities, with the addition of the “project levels” component, which creates three different approval tracks, based on project complexity and potential for controversy. The idea of project levels was not found in other cities’ processes – it was originally suggested by the City of Syracuse. Support for this approach also came from a contact at Local Motion in Vermont, who expressed the wish that the existing process in Burlington could be made easier and faster for smaller projects.

The flow chart in Figure 5 provides an overview of the recommended Community Streets project approval process, including the project levels discussed below. This process would require project sponsors to submit two forms: an initial Interest Form, designed to elicit a general project description (type of project, location, purpose, etc.), and a Community Streets Application, which would be completed after an initial meeting with City staff and would include a more detailed project description. A relatively small/straightforward project could potentially be approved on the basis of this application. More complex projects are assumed to require a second meeting with the City and a letter of support from a community partner or stakeholder. At a certain point, project ideas reach a level of complexity (and possible controversy) that makes it advisable to discuss the idea in a public forum. Presenting a project idea at a TNT meeting seems to meet this requirement without imposing too great a burden on the project sponsor.

Project Levels

Some projects will be less expensive, easier to install, and easier for City staff to review and approve than others. Defining three levels or tiers of projects, corresponding to “Easy”, “Moderately Difficult”, and “Difficult” can help clarify the project sponsor’s expectations in terms of review times and commitment of resources. A temporary bike lane may seem like a desirable installation, but it will take much more time and energy, and will take longer for the City to approve, than a temporary curb extension. Some projects will also have more impacts on traffic operations than others, regardless of how hard or easy they are to install. A pop-up mid-block crosswalk, for example, introduces a new traffic control where none previously existed; reviewing its location and design is likely to be (relatively) time consuming. For the purposes of this discussion, we will refer to three project levels:

- Level I (“Easy”),
- Level II (“Moderately Difficult”), and
- Level III (“Difficult”).

The project level will vary based on site characteristics (street width, traffic volumes, presence of transit stops/routes, etc.) and on project features like duration of installation and impacts on traffic operations. Each of these considerations is discussed below. Table 1, “City of Syracuse Community Streets Program - Typical Projects” provides a list of typical tactical urbanism projects, the project level that would in most cases likely be associated with that kind of project, and other typical specifications drawn from research into other cities’ projects.

TABLE 1 - CITY OF SYRACUSE COMMUNITY STREETS PROGRAM - TYPICAL PROJECTS

PROJECT TYPE	TRAFFIC VOLUME	ON-STREET PARKING REMOVED (Spaces / Feet)	DURATION OF INSTALLATION	SITE CONDITIONS ¹	VOLUNTEERS NEEDED	FUNDING LEVEL (estimated)	PROJECT LEVEL ²	PROCESS REQUIREMENTS ³	ADDITIONAL PERMITS
Curb Extensions	<2,500 AADT ⁴	≤ 2 car lengths total	Not Restricted	Curb extension must not reduce number of lanes open on street or reduce lane width below 10 feet	2 TO 3	\$50 - \$500	I		
	>2,500 AADT ⁴	≤ 4 car lengths	Not Restricted	Curb extension must not reduce number of lanes open on street or reduce lane width below 10 feet	3 TO 4	\$50 - \$500	II	2nd meeting with City staff to clarify traffic control	Community Streets - Street Closure Permit (in some cases)
Intersection Mural	<2,500 AADT ⁴	N/A	Not Restricted	Ideal locations would be intersections considered "neighborhood gateways"; signalized intersections prohibited	4 TO 10 + 1 person for each closed intersection approach	\$500 - \$1,000	I	Buy-in from all adjacent residents & 75% of nearby residents; 5,000 AADT (on each street) is the upper boundary for Intersection Mural projects	Community Streets - Street Closure Permit
Parklets	<2,500 AADT	≤ 2 car lengths total	2 - 3 days	Location must have existing on-street parking lane. Typically (but not necessarily) near existing commercial use.	2 TO 3	\$500 - \$5,000	I	Project sponsor must use a parklet design from an approved list of design sources	
	>2,500 AADT	≤ 2 car lengths total	3 Days to Seasonal	Location must have existing on-street parking lane. Typically (but not necessarily) near existing commercial use.	2 TO 3	\$500 - \$5,000	II	Project sponsor must use a parklet design from an approved list of design sources; 2nd meeting with the City to agree on design; provide at least one letter of support from a community or neighborhood organization	
Bike Corral	<2,500 AADT	≤ 2 car lengths total	2 - 3 days	Location must have existing on-street parking lane.	2 TO 3	\$500 - \$5,000	I	Project sponsor must use a bike corral design from an approved list of design sources	
	>2,500 AADT	≤ 2 car lengths total	3 Days to Seasonal	Location must have existing on-street parking lane.	2 TO 3	\$500 - \$5,000	II	Project sponsor must use a bike corral design from an approved list of design sources; 2nd meeting with the City to agree on design; provide at least one letter of support from a community or neighborhood organization	
Bike Lane / Protected Bike Lane	<2,500 AADT	1 to 2 Blocks	1 - 3 days	For use in residential areas. Existing pavement (curb-to-curb) must be sufficiently wide to accommodate existing travel lanes (10') with proposed bike lanes. Bike lanes must be at least 5' wide; 6' is preferred. A 2'-3' buffer is also recommended, though not required.	4 TO 5	\$500 - \$1,000	I		

PROJECT TYPE	TRAFFIC VOLUME	ON-STREET PARKING REMOVED (Spaces / Feet)	DURATION OF INSTALLATION	SITE CONDITIONS ¹	VOLUNTEERS NEEDED	FUNDING LEVEL	PROJECT LEVEL ²	PROCESS REQUIREMENTS ³	ADDITIONAL PERMITS
Bike Lane / Protected Bike Lane	2,500 to 10,000 AADT (recommended)	More than 2 blocks	1 day - 1 month	Existing pavement (curb-to-curb) must be sufficiently wide to accommodate existing travel lanes (10') with proposed bike lanes. Bike lanes must be at least 5' wide; 6' is preferred. A 2'-3' buffer is recommended but not required.	8 TO 10 per half-mile	\$1,000 - \$10,000	III	Two meetings with the City, letter of support, present idea at public meeting (e.g., TNT meeting)	
Crosswalk	<5,000 AADT (recommended)	≤ 2 car lengths per side of street	1 - 3 days	Location should have at least 200' sight distance in each direction (distance to be measured/verified by City staff)	1 TO 2	\$50 - \$500	II	2nd meeting with the City to agree on design; provide at least one letter of support from a community or neighborhood organization	
Pedestrian Plaza	<2,500 AADT w/available alternate route	Not Restricted	1 - 3 days	Low-volume street or "stub" street segment - preferably installed in a location and with a function that fits well with nearby uses	4 TO 5	\$50 - \$1,000	III	Two meetings with the City, letter of support, present idea at public meeting (e.g., TNT meeting), bag parking meters (if applicable) and post 'No Parking' signs' 24 hours prior to event	Community Streets - Street Closure Permit
Median Refuge Island	<10,000 AADT (recommended)	Not Applicable	1 day	Locations need to be selected carefully to balance the need for safety with the desire to demonstrate the project's effectiveness	4 TO 5	\$50 - \$500	III	Two meetings with the City, letter of support, present idea at public meeting (e.g., TNT meeting)	
Off-street projects	N/A	N/A	Not Restricted	For projects in parking lots: minimal through traffic; no standpipes or hydrants blocked; maintain a 15' through path for emergency vehicles	1 TO 2	\$50 - \$100	I	Meet with the City (or other parking lot owner) to agree on design	
Wayfinding Projects	N/A	N/A	Not Restricted	Appropriate in neighborhoods - not to be utilized in Downtown Syracuse, where wayfinding signage already exists and/or is being planned	1 TO 2	\$50 - \$100	I		
Roundabout	<5,000 AADT (combined volume of intersecting streets)	≤ 2 car lengths per side of street	<2 weeks	Low-volume intersection w/non-standard geometry	4 TO 5	\$500 - \$1,000	III	Roundabout design and signage must meet MUTCD standards; two meetings w/city, letter of support, present idea at public meeting (e.g., TNT meeting)	Community Streets - Street Closure Permit (in some cases)

NOTES

- 1.) All projects must maintain a minimum 25' radius clear area around fire hydrants, a 15-foot through zone for emergency vehicles, and must not impede access to any private driveways or transit stops.
- 2.) Any project that will result in the removal of a travel lane or modification to the existing traffic control will be considered a Type II or III project. The City reserves the right to make the determination of project type based on overall complexity or other factors not list here; this table is a general guide.
- 3.) All projects will include: submitting an initial interest form, at least one meeting with City staff, and submitting a completed Community Streets Application.
- 4.) For Level I projects at intersections, both streets should be “low volume”, with fewer than 2,500 AADT on either street.

A rigid application of the guidelines in Table 1 is not recommended. The City should approach any such system as a starting point for discussions with project sponsors and other stakeholders. The actual approach taken to a given project will depend on the project's specifics.

Site Characteristics

Functional Class & Traffic Volume

Several cities strongly discourage applicants from undertaking projects on arterials or other high-volume streets. But arterials and major collectors may be the streets that project sponsors are most interested in improving, and a sufficiently well-organized (and well-funded) project sponsor may be able to deal with the difficulties of installing a project on a busy road.

Rather than prohibiting projects on certain streets, the City should ensure that the process includes at least two project meetings for any projects that will put volunteers, paint, and other materials between the curb lines of streets with more than 2,500 AADT. As shown in Table 1, this volume is used as the cut-off point between Type I and Type II projects. Streets below this threshold will, generally, be manageable locations on which to install an “easy” project, particularly if the installation is done during off-peak times. For projects on streets above this threshold, the project sponsor must demonstrate that they have taken traffic control into consideration by, for example, using cones to create a work zone and by designating a traffic control person. (Depending on the type of project, the City may waive the requirement for a letter of support.)

As shown in Table 2, not all projects on streets with volumes under 2,500 AADT are automatically Type I projects, but all projects on streets with volumes above 2,500 AADT should be treated as Type II projects.

Transit

The presence of a transit stop in a project area can make a pop-up project more complex. Temporary traffic control can impede buses' progress, and project designs need to ensure that bus riders are not significantly inconvenienced by, for example, temporary occupancy of a bus stop by a protected bike lane.

Busy Streets and Pop-ups

In April 2019, Denver non-profit WalkDenver partnered with neighborhood groups to install a pop-up project on Federal Boulevard, a busy arterial with more than 32,000 vehicles a day. The installation used brightly-painted tires to convert a left-turn pocket to a temporary median island and hay bales to extend the curbs at an intersection. This installation was done on a Saturday morning when traffic volumes were lower than normal, but it necessitated mixing volunteers with traffic. Safety measures included yellow vests and hiring a professional flagger to control traffic.



Project Design Elements

Design factors that will make some projects more complicated than others are those that either affect traffic safety and operations or those that are likely to spark controversy among stakeholders. These can include:

- Adding traffic controls to the street,
- Removing on-street parking,
- Removing street capacity, and
- Altering street operations (for example, converting a two-way street to one-way operations).

Modifying Traffic Controls

The design and placement of traffic controls, such as crosswalks, signs, and in-street lane delineators, need to comply with the MUTCD to the greatest extent possible. For temporary installations that utilize materials like straw bales and tire stacks, MUTCD compliance may be more approximate than exact. A spray chalk crosswalk, on the other hand, should comply with MUTCD design specifications. Project sponsors cannot be expected to be familiar with the MUTCD; when a project includes traffic controls, it should be assumed that the City will take the lead in identifying the types of materials and design standards the project sponsor will use during the installation.

Note that the FHWA does not consider curb bump-outs or intersection murals to be traffic control devices; there are no MUTCD specifications for these projects.

Because traffic control designs can affect traffic safety, the City and project sponsor should be prepared for detailed discussions of the design, placement, and materials to be used for traffic controls.

If the pop-up project involves altering traffic operations, such as by temporarily converting a one-way street to two-way operations (or vice versa), or otherwise altering how traffic flows, this should be considered a Level III project. In Burlington, a plan to install a two-way cycle track on a residential street meant converting a block from two-way to one-way operations, to the consternation of some neighbors. Adjusting project duration and ensuring that neighbors and nearby businesses are aware of a project's duration can help reduce controversy/hostility toward a project. At the same time, it is important for the City to bear in mind that some pop-up projects, no matter how well designed and advertised, will be controversial, just as some capital projects are. The most valuable outcome of a temporary project may be to help identify strong community opposition to the project or one of its components.

Removing On-Street Parking

In some neighborhoods, on-street parking spaces are an extremely valuable commodity and projects that occupy these spaces even temporarily can inspire a negative reaction from people and businesses that rely on them. A project that will remove four or more on-street parking spaces for more than two days should be treated as a Type II project, at a minimum. Projects that typically require using on-street parking spaces include bike lanes, parklets, bike corrals, and curb extensions.

Removing Travel Lanes

In some cases, the purpose of an installation may be to demonstrate that a facility has excess capacity and that a road diet could improve safety for cyclists and pedestrians without impacting traffic operations. The level of signage, in-street traffic delineation, and coordination with businesses required to implement a temporary road diet automatically makes it a Type II or Type III project.

Typical Projects, by Level

Level I

Wayfinding & other off-street projects: Projects that do not place volunteers or materials in the street will generally be Type I projects, regardless of site characteristics. Examples include wayfinding signs, sidewalk art, projects in public parks, and city-owned parking lots.

Bump-outs and Curb Extensions on low-volume streets: Pop-up curb extensions and bump-outs can be installed quickly by a small team of volunteers with minimal traffic control. The *Tactical Urbanism Guide to Materials and Design* recommends using paint and flexible delineator posts to define the bump-out area; planters, cones, and straw bales can also be used.

Things to measure during the pop-up:

- Do more vehicles stop for pedestrians?
- Do more pedestrians use a crosswalk at a bump-out?
- Are turning movements slower?

Intersection Murals: The City's existing Block Party Permit is not designed for use by residents who want to paint an intersection mural, but it also does not prohibit it. Assuming there is broad neighborhood support for the design of an intersection's mural and for a block party to close an intersection to traffic during painting, both City approval and installation of a mural will be relatively easy.

Note, however, that unlike other Type I projects, the project sponsor should be required to provide evidence of "broad neighborhood support" for a design by providing a petition signed by 100 percent of the residents on the corners adjacent to the intersection and by 75 percent of residents within a one-block radius.

Bike Lanes – Easy Installation: Several factors make installing temporary bicycle lanes complicated, including project lengths, the need for traffic control, and conflicts with existing uses, such as on-street parking. However, if a project sponsor is motivated to prove the efficacy of a pop-up bike lane for a very limited distance (less than two blocks is probably reasonable), for a short period of time, on a low-volume street, such a project can be installed relatively easily. A very short pop-up bike lane could be used to fill

Parking Lot Project

A temporary installation by Arkansas-based bicycling advocacy group Bike NWA used rubber parking stops and paint to stripe temporary bike lanes and a pedestrian path through a parking lot that serves as a connection point for two trail systems. According to the organization's project report "Within minutes of the paint drying, cyclists and pedestrians began using these paths" to continue around a nearby lake. Projects like this can fill in missing links and give organizers valuable pop-up project experience.



Image Street Plans



Image Street Plans

Pop-up bike lanes and pedestrian walkway in a parking lot in Bella Vista, Arkansas

in a connection between facilities that is currently missing, or simply to give a project sponsor experience in installing a pop-up bike lane.

Things to measure during the pop-up:

- Number of cyclists (compared to pre-pop-up counts).

Parklets: A parklet converts a few on-street parking spaces into a small public park. As described in the Seattle Department of Transportation's *Parklet Handbook*, they are "a cost-effective way to activate streets, create more vibrant neighborhoods, and promote economic vitality."³ Like sidewalk cafes, businesses can use parklets to add outdoor space adjacent to their storefronts. Many cities have a formal permitting process, including design requirements, to ensure that parklets meet desired visual and safety standards.

Note that parklets that are intended to remain in place for more than a few days should be treated as Type II projects, given their impacts to on-street parking.

While the City of Syracuse does not currently have a set of guidelines for parklet installation, parklets could be designed and approved by way of the Community Streets program. The City should consider specifying appropriate street types and zoning districts (e.g., commercial districts) for parklets. The design and siting considerations involved with this type of project will likely require multiple conversations between City staff and the project sponsor.

Parklet design guidelines that could serve as a template for the City of Syracuse include:

- Seattle Department of Transportation's *Parklet Handbook*
 - http://www.seattle.gov/Documents/Departments/SDOT/PublicSpaceManagement/Parklet_Handbook_DIN_2017.pdf
- Los Angeles Department of Transportation's *Kit of Parts for Parklets* and *Kit of Parts Technical Appendix*
 - <https://ladotlivablestreets.org/content-landing/parklets>
- Smart Growth America's *Parklets Policy Primer*
 - <https://www.smartgrowthamerica.org/app/legacy/documents/parklet-policy-toolkit.pdf>

Things to measure during the pop-up:

- Number of people in the parklet throughout its installation,
- Length of time people remain in the parklet, and
- Amount of maintenance effort needed during installation.

Bike Corral: Like parklets, bike corrals re-purpose on-street parking spaces. Rather than space for a single vehicle, a bike corral can provide parking for up to 12 bicycles. Like parklets, design and siting considerations mean that they may require an iterative approval process.

³ *Parklet Handbook*, Seattle Department of Transportation, 2016.

Note that bike corrals that are intended to remain in place for more than a few days should be treated as Type II projects, given their impacts to on-street parking.

Things to measure during the pop-up:

- Number of parked bikes, and
- Length of time bikes are parked in the corral.

Level II

Level I Projects on Higher-Volume Streets: All on-street pop-up projects are assumed to be more difficult to install on streets with more than 2,500 AADT, making them Type II projects by default and necessitating a second meeting with City staff. (The requirement for a letter of support may be waived for projects in this category.)

Crosswalk: The MUTCD and NYSDOT's Pedestrian Safety Action Plan (PSAP) provide a complete set of standards, specifications, and enhancements for marked crosswalks. However, given a stencil with the proper dimensions and several cans of spray paint (or, alternatively, a strip of properly-striped tar paper that can be taped down), the mechanics of adding an MUTCD-compliant crosswalk to a relatively low-volume street are straightforward. The City's review of such proposals needs to take into consideration factors such as:

- Speeds and volumes on the facility to be crossed,
- Type of traffic control present, if any,
- The potential need for signs in addition to the crosswalk, and
- Appropriateness of the proposed crosswalk's location (see MUTCD Section 7C.03).

If the City determines that signs are needed in addition to crosswalk striping, the City should be prepared to supplement the project sponsor's installation with temporary signage.

Things to measure during the pop-up:

- Number of pedestrians using crosswalk, and
- Driver compliance with crosswalk regulations (legally, drivers must yield to pedestrians in the crosswalk).

Level III

Bike Lane / Protected Bike Lane – Multi-Block: For a meaningful test of how much use a bike lane would get in a neighborhood, a temporary lane will typically span several blocks. As with any other project, a larger footprint means greater complexity – more volunteers, more affected businesses and other stakeholders, and more impacts to other services, such as trash collection and transit stops. The design challenges alone mean an iterative process will be needed.

Traffic control during installation can also add complexity. Bike lanes require volunteers to be in the street for multiple blocks, but not necessarily in any one location for a very long time. Cones (and flaggers, if utilized) must be re-positioned from one section of the project to another throughout the installation process. Additionally, there is the challenge of controlling traffic on side street approaches while lanes are placed through intersections.

Bike lanes often compete for space in the public right-of-way with on-street parking. As previously

mentioned, taking out on-street parking, even temporarily, can be upsetting to business owners and residents.

A *protected* bike lane requires additional design considerations to ensure that driveways remain open, width is maintained for emergency and delivery vehicles, and that, if transit routes are present, bus passengers can easily and safely get on and off buses.

Things to measure during the pop-up:

- Number of cyclists (compared to pre-pop-up counts).

Pedestrian Plaza: in the right location, a pop-up pedestrian plaza can demonstrate that underutilized public space has uses other than (and better than) transportation. Naturally, not every block is a good candidate for a plaza. Considerations include: traffic volumes on the block or segment to be closed, the availability of alternate routes during the closure, and existing foot traffic and demand for open space in the neighborhood.

The closure of a block, alley, or street segment for a temporary pedestrian plaza can, in most cases, be accomplished with a Block Party Permit. This guidance recommends that the City develop an alternative to the existing Block Party Permit application process that allows project sponsors to place furniture in the street and create a pedestrian plaza for multiple days.

Things to measure during the pop-up:

- Number of people sitting, standing, and socializing in the plaza, and
- Length of time spent in plaza.

Median Refuge Island: Burlington's tactical urbanism guidance refers to the installation of median refuge islands as "tricky" because "the medians are located within the center of an active street." A street that is busy and wide enough to prompt a project sponsor to install a median refuge island is also a street that is likely to see high traffic volumes and is unlikely to be a good candidate for total street closure. Traffic control is critical (and likely to be expensive, if professional flaggers are used), as are proper design, installation, and signage. A median refuge island's value to individual pedestrians may also be something that is difficult to measure during a temporary installation.

Pop-up Bike Lane Logistics – "Connect the Crescent"

New Orleans' Connect the Crescent was originally envisioned as five-miles of pop-up bike lane (rivaling Macon, Georgia for the title of "World's Largest Pop-up Bike Network") but as the project's documentation explains, the logistics of installing that many miles of bike lane – particularly the need for consecutive days of dry weather – meant that only three miles were put in place, at a rate of roughly a half-mile a day. According to the project website: "Installation required multi-phased plans for each corridor, accounting for overall workflow, volunteer management, and traffic control." Forty-seven block captains were given in-depth training on the project's design and installation specifics, which enabled them to coordinate the work of the 200 other volunteers involved in installing the project. The '[Building Connect the Crescent](https://connectthecrescent.com/report/build)' section of the project's website provides details on how this group coordinated project installation, including an eight-step sequence for installing a section of bike lane. (<https://connectthecrescent.com/report/build>)



"Connect the Crescent" pop-up bike lane in New Orleans

A median refuge greatly improves the quality of a wide street crossing for pedestrians, regardless of whether or not more pedestrians use the crossing. This makes it critical to conduct intercept surveys during the pop-up project to capture pedestrians' comfort level; preferably these surveys would be compared to pre-installation surveys.

Things to measure during the pop-up:

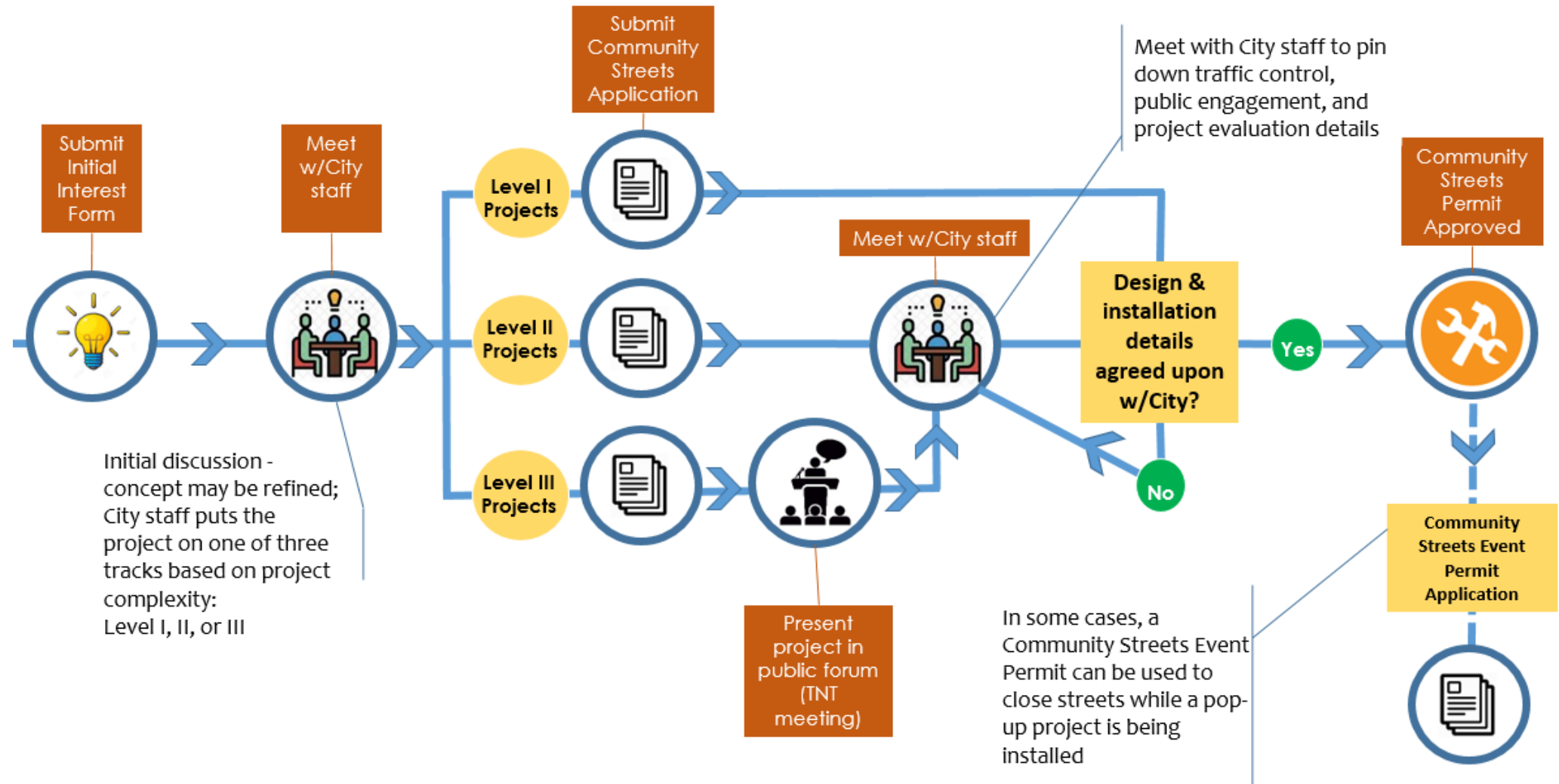
- Intercept surveys of pedestrians using the crossing.

Process by Project Level

All projects should follow a similar path to approval. Figure 5 provides an illustration of this process:

- Project sponsor submits an initial Interest Form, preferably an online application.
- City staff review the initial application and meet with the Project Sponsor to discuss project viability, alternatives, design modifications, etc. The project is assigned one of three levels, I, II, or III.
- Project sponsor uses input from the City to complete a second application, which will include specifics, such as materials, duration, and traffic control during installation. This application will be circulated to other city departments (such as Police and Fire) and to other agencies as appropriate (such as Centro).
- All Type II and Type III projects will include a second meeting with City Staff to further refine design details. City staff will determine whether or not a second meeting is needed to discuss details for Type I projects.
- Type II and Type III projects will require a letter of support from an appropriate community group or business.
- All Type III projects will include some form of formal public / stakeholder outreach, such as the presentation of the project concept to the appropriate TNT group. Type I and II projects may require some form of public outreach, at the discretion of city staff.
- Once City staff feel that the project's details are acceptable, a Community Streets Permit will be issued. The project sponsor can use this permit to apply for a Community Streets Event Permit at a later time to establish the conditions for street closures, as needed.

Figure 5 – Draft Community Streets Project Approval Process



Public notice and stakeholder engagement

All projects should be required to include a pre-project installation notice on site for a week prior to the project. The City should provide a template that includes:

- Brief project description,
- Planned date and time of installation,
- Contact information for the project sponsor, and
- Website to go to for more information (QR code / URL).

Type I projects should not be required to demonstrate any form of support from anyone other than the project sponsor. These are ephemeral projects that are unlikely to have negative impacts on adjacent properties

Type II and III projects may have impacts on adjacent properties and residents. Project sponsors should be encouraged to provide at least one letter of support from a community/neighborhood organization or business.

Type III projects can involve major disruptions to traffic and uses of the public right-of-way; requiring a higher level of public engagement seems entirely appropriate. Sponsors of Type III projects should be required to present their project ideas in a public forum before a second project discussion with the City. The neighborhood TNT meeting would seem to be an appropriate forum.

Interdepartmental Review

Ensuring that Police, Fire, and Parks Department personnel, as well as Centro staff, know what “tactical urbanism” is, how pop-up projects can benefit the city, and how they can support these projects will be key to the success of the Community Streets program. Without approval from the Police and Fire Departments, full or partial street closures are not possible, which would make projects like intersection murals infeasible. Centro’s facilities may be unavoidably affected (or temporarily improved) by pop-up projects, so ensuring that staff there are aware of this program and process can be helpful. Similarly, support from the Parks Department can make it easier to develop projects that incorporate both park property (such as parking lots and park roads) and adjacent streets.

In Vermont, Local Motion uses a slideshow and meetings with local leaders and key personnel from municipal departments to introduce the idea of tactical urbanism. If possible, the lead department should take steps to explain the purpose of tactical urbanism projects to staff from other departments, and invite them to provide input on the approval process as it is being developed. (For the sake of this discussion, we will assume that the Department of Public Works is the lead department, and it is assumed that Centro will be consulted as needed.)

This white paper presents several commonly used types of pop-up projects. Ideally, staff from other departments can step through a hypothetical approval process for these projects and provide Public Works staff with an outline or checklist of items that would likely be concerns for various projects. This can provide Public Works with improved feedback for project sponsors in their initial meeting with the City.

In order to expedite review of Type I projects, the pop-up project approval process would include interdepartmental review following the initial meeting between the City and the project sponsor. Since

Type I projects would, in most cases, not include a second meeting, it is assumed that Type I projects will not require significant re-design following interdepartmental review. For Type II and Type III projects, a second meeting between the project sponsor and Public Works is assumed to be necessary. If major design changes have been requested by other departments, these can be addressed in this meeting.

Conclusion

Improvements to the public right-of-way are not traditionally “beta tested”. Normally, improvements to streets are studied, planned, and rigorously designed to standards. Because changes to roads are both expensive and permanent, the process that leads up to construction is exhaustive. Project ideas that, for whatever reason, do not fit with the current Capital Improvement Program sit in the ever-expanding parking lot of transportation concepts.

The City of Syracuse’s Community Streets program will give residents and the City an opportunity to give some of these ideas a test drive. Building on the techniques used in other cities’ tactical urbanism programs, the City can develop an application and review process that residents and community groups can use to turn ideas into pop-up projects, which can then be evaluated in real-world conditions.

If it follows the recommendations in this document, Syracuse’s program will be the first tactical urbanism approval process (that we know of) that identifies project levels and articulates specific requirements based on a given project’s complexity.

The examples and resources available from other cities around the country are too numerous to provide in a single static document. This white paper has attempted to distill key ideas from other cities, but the field of tactical urbanism is expanding all the time, in some cases to solve problems that Syracuse has not yet had to confront. For example, the rise of e-scooters has led to at least one tactical urbanist response: the so-called “birdcage”, a parking area for e-scooters created with spray paint and a stencil. As e-scooters, e-bikes, electric mopeds, and other new forms of mobility emerge, tactical urbanism offers cities a path to quickly adapt to shifts in how people want to get around.



Figure 6 – A “birdcage” for e-scooter parking

Source: <https://99percentinvisible.org>

Summary of Decision Points and Action Items

In the course of this research, we have identified a few points of City policy that should be clarified and/or developed before a Community Streets program can be introduced to the public. Additionally, there are steps that the City can and should take to ensure the program’s success. The following list summarizes action items and policy decisions identified in this document.

- The City should identify the City department and single point of contact who will take primary responsibility for ensuring that Community Streets projects move through the approval process.

- This white paper has outlined a project review and approval process, including three project levels with varying levels of public outreach – the City should review this process and determine if it is acceptable. If it is not, an acceptable process should be developed and adopted.
- Multiple City departments will be involved in reviewing Community Streets projects; the City should include other departments in the review and development of the Community Streets process.
- A process for circulating Community Streets project applications through other City departments, particularly emergency services, should be established.
- The Office of the Corporation Counsel should be consulted on whether or not (or when and where) to allow non-MUTCD-compliant pavement markings, such as rainbow crosswalks and other creative crosswalk designs.
- The City should determine whether or not project inspections will be required for some or all Community Streets projects. If inspections will be required, a City department and single point of contact from that department should be identified.
- The City should determine the level of design that will be required in project plans.
- The City should establish a Community Streets logo and develop a brand that will help projects become recognizable as being part of a sanctioned City program.
- The City should develop a “Community Streets Event Permit” based on a modified Block Party Permit Application (see the discussion points in the “Excluding Traffic – Block Party Permits” section).
- The City should develop a Community Streets Program Guidelines document and program application.

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APPENDICES

APPENDIX A - City of Syracuse Block Party Permit Discussion

APPENDIX B - Tactical Urbanism and the MUTCD

APPENDIX A - City of Syracuse Block Party Permit Discussion

Several cities combine the “pop-up project” approval process with the block party / special event permit process. For example, the City of Denver has a two-page “Pop-Up Project Application” form that asks applicants for a location, intersecting street names, materials to be used, and a design drawing on an aerial photo. The details of the street closure itself are handled with a Block Party Permit and a Street Occupancy Permit. Denver’s permit processes deal with specifics such as insurance requirements, indemnification of the City, requirements to obtain barricades and to develop a traffic control plan, and other requirements. This allows the approval of the pop-up project itself to remain relatively simple.

The City of Portland, Oregon, does a number of things to encourage block parties, including not charging applicants for a block party permit and actively promoting block parties on the city’s website.⁴

The City of Syracuse’s current Block Party/Street Closing Application was updated very recently, and incorporates some improvements over previous versions, including:

- Ending the requirement that 100 percent of the residents of a block must sign a petition supporting the temporary street closure. The new permit requires approval from only 75 percent of residents and businesses on the block to agree.
- Including a notification requirement, and an outline of what that notification requires; a hard copy letter is now required, and the letter must specify the event’s details and how to contact the person responsible for the street closure.
- Language and requirements relating to the consumption of alcoholic beverages is now much clearer.

The City of Syracuse should consider developing a “Community Streets Event Permit” process that modifies the existing Block Party Permit Application as follows:

- Consider providing applicants with a notification template. Portland’s Block Party Permit Application includes a notification template that is also an invitation to the block party (Figure A1).
- Other than committing to posting people at barricades, a traffic control plan is not a specified requirement. Portland’s Block Party Permit Application includes blank traffic control templates for applicants’ use to help clarify where barricades will be placed (Figure A2).
- If there is a minimum number of people who must be in place at any given time during a street closure (such as “one person per approach”), applicants should be made aware that they will need to supply the required number of volunteers.
- Language related to what is allowed in the street seems overly restrictive. The Fire Department should be encouraged to re-consider the requirement that streets be “kept free and clear” of tables, chairs, and booths. Other cities’ block party permits specify that a given clear width (e.g., 15 feet) must be maintained at all times for emergency vehicles.
- Permit progress tracking. The City of Ithaca gives applicants a tracking number to make it easier to track a permit’s status.

⁴ See the City of Portland’s “Community & Civic Life” website: <https://www.portlandoregon.gov/civic/33907>.

- Incentivize timely clean up. Binghamton requires a security deposit, which the applicant forfeits if they fail to clean up the block – this is a practical way to ensure that pop-up projects are cleaned up on time.
- Incorporate tactical urbanism ideas into the permit itself. Portland’s block party application asks if the block party is for a street painting project. The “Community Streets Event Permit” application could include other types of projects, such as parklets and curb extensions.
- Ensure that no cars are parked in on-street parking spaces that will be part of the installation. Some cities provide bags for meters and “No Parking – Tow Away Zone” signage and recommend placing these on-site 24 hours prior to the project’s start time.

Additionally, many cities provide guidelines and explanatory notes to accompany their block party permits, ensuring that applicants can (to the degree that they are so inclined) comply with the letter of the law to the greatest extent possible in their initial application. This is likely to make the permitting process more efficient for all parties.



PORTLAND IN THE STREETS

Block Party Date is:

We are hosting a block party!

You're Invited!

Here is a summary of our planned activities:

We will be closing this street

between these streets: **and**

Starts at ☐ AM / ☐ PM **Ends at** ☐ AM / ☐ PM

If you have any questions about the block party contact us:

Contact name:

Phone/cell:

Email address:

Contact PBOT (503)823-4003 | pbotblockparty@portlandoregon.gov

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Updated 7/23

Figure A1 – Portland Block Party Notification/Invitation



PORTLAND IN THE STREETS

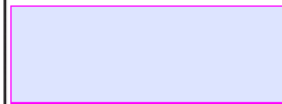
Applicant Name: _____

Phone number: _____

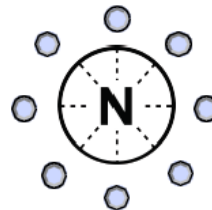
Three Type I
Barricades



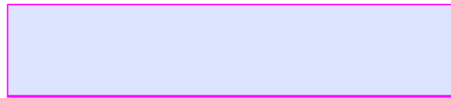
Street Name



Indicate Direction of North



Street Name



Three Type I
Barricades



Street Name



Traffic Control Devices needed
to close one typical block:

- 6 - Type I Barricades
- 2 -  or  signs
equipped on center
barricade at each end of
street. Signs must be
have min. size of 30" x
24"
- Signs must be retroreflective
- Barricades must be equipped
with flashing yellow with
diminishing visibility conditions

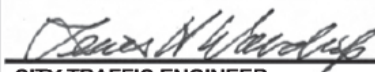


PORTLAND BUREAU OF TRANSPORTATION

CITY OF PORTLAND, OREGON

TITLE OF PLAN **PORTLAND IN THE STREETS SIMPLE STREET CLOSURE PLAN** (Typical street configuration)

APPROVED

 4/2018
CITY TRAFFIC ENGINEER DATE

Event Date: _____

Event Time: Start: _____ End: _____



Figure A2 – Portland Block Party Simple Street Closure Plan Template

APPENDIX B - Tactical Urbanism and the MUTCD

Traffic Control Devices and the Law

The point of guerilla urbanism is that a small, motivated group of people can make a change overnight that would otherwise take months or years to implement through official channels. That is to say, it is a matter of being willing to break the law in what you perceive to be the public interest.

The City of Syracuse's Code of Ordinances makes guerilla urbanist actions that alter or add traffic control devices illegal:

[Part M, Chapter 15, Article V, Sec. 15-97 - 98.](#)

Section 15-97: Display of unauthorized signs, signals or markings.

(a) No person shall place, maintain or display upon or in view of any highway any unauthorized sign, signal, marking or device which purports to be or is an imitation of or resembles an official traffic-control device or railroad sign or signal, or which attempts to direct the movement of traffic or which hides from view or interferes with the effectiveness of any official traffic-control device or any railroad sign or signal, and no person shall place or maintain nor shall any public authority permit upon any highway any traffic sign or signal bearing thereon any commercial advertising. This shall not be deemed to prohibit the erection upon private property adjacent to highways of signs giving useful directional information and of a type that cannot be mistaken for official signs.

(b) Every such prohibited sign, signal or marking is hereby declared to be a public nuisance and the chief of police is hereby empowered to remove any such prohibited sign, signal or marking, or cause it to be removed without notice.

Section 15-98: Interference with official traffic-control devices or railroad signs or signals.

No person shall without lawful authority attempt to, or in fact, alter, deface, injure, knock down or remove any official traffic-control device or any railroad sign or signal or any inscription, shield or insignia thereon, or any other part thereof.

Sec. 15-99. - Commissioner of public works to designate crosswalks, establish safety zones and mark traffic lanes.

The commissioner is hereby authorized without formal designation of the common council:

- (1) To designate and maintain, by appropriate devices, marks or lines upon the surface of the roadway, crosswalks at intersections, where in his opinion there is particular danger to pedestrians crossing the roadway, and at such other places as he may deem necessary;
- (2) To establish safety zones of such kind and character and at such places as he may deem necessary for the protection of pedestrians;
- (3) To mark lanes for traffic on street pavements at such places as he may deem advisable, consistent with the traffic ordinances of this city and the laws of the state of New York.

City ordinance puts the responsibility for traffic control devices in the hands of the Commissioner of Public Works, and the federal government has established the MUTCD as the set of standards for the design and installation of traffic control devices on all public streets. Code of Federal Regulations Title 23, Chapter I, Subchapter G, Part 655, Section 603 states:

(a) *National MUTCD*. The MUTCD approved by the Federal Highway Administrator is the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). For the purpose of MUTCD applicability, open to public travel includes toll roads and roads within shopping centers, airports, sports arenas, and other similar business and/or recreation facilities that are privately owned but where the public is allowed to travel without access restrictions. Except for gated toll roads, roads within private gated properties where access is restricted at all times are not included in this definition. Parking areas, driving aisles within parking areas, and private highway-rail grade crossings are also not included in this definition.

It would seem clear that a “national standard” lacks the force of law. If a home’s tap water exceeds the EPA’s standard of .015 milligrams of lead per liter, the homeowner is not jailed until corrective action is taken. It is assumed that the homeowner will take corrective action because it is in their best interest to meet the standard. Similarly, a municipality’s exposure to liability for torts resulting from non-standard signage encourages compliance with the standard. In explaining how MUTCD regulations will be enforced on private roads, the FHWA explains that “Private roads open to public travel” are subject to the same standards as public streets and highways. The FHWA’s FAQ then explains that it is not considered necessary for State or local highway agencies to police private road owners’ traffic controls because owners who do not comply “may find themselves exposed to increased tort liability”. https://mutcd.fhwa.dot.gov/knowledge/faqs/faq_general.htm

In terms of active measures available to the FHWA to ensure MUTCD compliance, there is the ability to withhold federal funds as a punitive measure. Cases of federal funds being denied as a result of a failure to comply with the MUTCD at the scale of a few crosswalks in a city were not discovered in this research. Given that the vast majority of traffic control devices on public roads across the country are designed and installed using the MUTCD, the degree to which a state, city, or MPO would have to allow/encourage deviations from the MUTCD before some penalty was triggered is unclear. Also, it seems that in general there is not a mechanism by which the FHWA polices municipal traffic control devices and inventories violations. It seems likely that many minor violations of the letter of the MUTCD could be discovered in any major city’s signage and pavement markings.

There is precedent for the FHWA withholding federal funds over a disagreement related to signage at the *state* level. In 2018, the FHWA withheld \$14 million in federal funding from New York State in response to the State’s refusal to remove “I Love NY” highway signs that the FHWA considered illegal.¹ However, this was a response to a statewide rollout of hundreds of signs on highways, not a handful of crosswalks on city streets.

Tort liability is a substantially more complicated legal question and one on which the City’s Corporation Counsel should be consulted for more information. Given that the majority of accidents occur on facilities designed either in compliance with, or not in open rejection of, the MUTCD, most case law revolves

¹ *Democrat and Chronicle* online, “I Love NY signs: State, federal government reach deal ahead of deadline”, September 28, 2018, <https://www.democratandchronicle.com/story/news/politics/albany/2018/09/28/love-ny-signs-state-federal-government-reach-deal-ahead-deadline/1459598002/>

around the question of whether or not a given facility was fully in compliance with the MUTCD's specifications for a site. When there is an accident on a public facility, every aspect of the facility's design is typically held up against the MUTCD and other roadway design standards. There are many cases of non-standard highway signage increasing the state's liability for accidents. To date, our research has not turned up cases in which the non-standard feature had been installed purposely. The key question in most cases related to liability turns on the degree to which the roadway's owner has studied the feature in question.

MUTCD on Colorful Crosswalks and Intersections

The MUTCD describes crosswalk striping as follows: "When crosswalk lines are used, they shall consist of solid white lines that mark the crosswalk. They shall not be less than 6 inches or greater than 24 inches in width."²

In 2011, the FHWA's Director of Transportation Operations wrote a letter to the City of Buffalo's Director of Traffic Operations to clarify how road owners should interpret the MUTCD's crosswalk standards when considering non-standard additions to crosswalks. The City of Buffalo was considering a "colored pavement treatment" consisting of "yellow, white, beige, green, and gray colored 'jigsaw-puzzle' pieces that are fit together within the area bounded by the white transverse lines that establish the crosswalk."³

The FHWA's Official Interpretation (the letter is "Interpretation Letter 3(09)-8(I) – Colored Pavement Treatments in Crosswalks") was that "the proposed treatment in Buffalo would degrade the contrast of the white crosswalk lines and should not be used. This interpretation also applies to any colored pavement or colored marking materials within a crosswalk except subdued-colored paving bricks, paving stones, or materials designed to simulate such paving."

The Interpretation Letter refers the City of Buffalo to MUTCD Section 3G.01 Paragraph 6, which states: "Colored pavement located between crosswalk lines should not use colors or patterns that degrade the contrast of white crosswalk lines, or that might be mistaken by road users as a traffic control application."

The MUTCD draws a distinction between paint/colored pavement applied as a "purely aesthetic treatment" and additions to the road "intended to communicate a regulatory, warning, or guidance message to road users". One of the distinctions in materials is whether or not the markings use retro-reflective paint/materials: if the colored pavement is non-retroreflective, it would normally be considered an aesthetic treatment. However, in the 2011 Interpretation Letter, the FHWA points out that street lighting can make a difference here:

It is our understanding that the Buffalo treatment is designed to be an artistic and aesthetic enhancement to the neighborhood. Even though it is non-retroreflective, its use in areas with street lighting means that it will be prominently visible to road users both day and night and it has **a significant potential to distract road users** and thereby reduce safety. Also, it should be noted that Section 3B.18 of the MUTCD prescribes that only the

² MUTCD 2012 Update, Section 3B.18-4.

³ FHWA, "2011 Interpretation Letter 3(09)-8(I) – Colored Pavement Treatments in Crosswalks", https://mutcd.fhwa.dot.gov/resources/interpretations/3_09_8.htm

uniform use of diagonal or longitudinal white bars in the crosswalk area is allowed to perform the function of adding conspicuity to a crosswalk. [emphasis added]

The FHWA's Interpretation Letter reinforces the idea inherent in the MUTCD's overall guidance: when you present drivers with something novel, it can be a distraction and create an unsafe situation. Creativity is (essentially) non-MUTCD-compliant.

Municipalities reacted to this relatively straight-forward-sounding ruling with a spectrum of policies – frequently picked up by media outlets in discussions of rainbows added to crosswalks for gay pride festivals.

To clarify its 2011 ruling, in 2013, the FHWA's Associate Administrator for Operations issued another letter, Interpretation Letter 3(09)-24(I) – Application of Colored Pavement. This letter's tone lacks the conciliatory nature of most FHWA directives, with the Associate Administrator for Operations essentially accusing municipalities of trying to “circumvent” various elements of the MUTCD's guidelines.

The letter provides acceptable examples of “crosswalk art”:

Examples of acceptable treatments include brick lattice patterns, paving bricks, paving stones, setts, cobbles, or other resources designed to simulate such paving. Acceptable colors for these materials would be red, rust, brown, burgundy, clay, tan or similar earth tone equivalents. All elements of pattern and color for these treatments are to be uniform, consistent, repetitive, and expected so as not to be a source of distraction. No element of the aesthetic interior treatment is to be random or unsystematic. No element of the aesthetic interior treatment can implement pictographs, symbols, multiple color arrangements, etc., or can otherwise attempt to communicate with any roadway user.⁴

Rainbow Crosswalks

Rainbow crosswalks would seem to be in clear violation of this guidance, since they include “multiple color arrangements”. Additionally, this interpretation letter is very clear that purple and blue (necessary to complete the rainbow of colors in a rainbow crosswalk) are not to be used as pavement colors outside of very specific cases (such as purple lines at a toll plaza).

In 2017, the FHWA's division administrator in Kentucky wrote a letter to the mayor of Lexington requesting that the city remove a rainbow crosswalk. As quoted in the Lexington *Herald-Leader*, the letter states: “While we recognize in good faith your crosswalk art was well-intended for your community, we request that you take the necessary steps to remove the non-compliant crosswalk art as soon as it is feasible”.⁵ The letter cites potential liability concerns for the municipality, as well as the proven safety record of traditional crosswalk markings. Google StreetView imagery from October 2018 showed that, while the rainbow crosswalk had not been removed, it had also not been maintained with fresh paint (see Figure B1).

⁴ FHWA, Interpretation Letter 3(09)-24(I) – Application of Colored Pavement, https://mutcd.fhwa.dot.gov/resources/interpretations/3_09_24.htm

⁵ *Herald-Leader* online, “Lexington's rainbow crosswalk is a safety hazard, federal official says”, November 16, 2017, <https://www.kentucky.com/news/politics-government/article184775743.html>



Figure B1 - Google StreetView imagery from October 2018 of Lexington's rainbow crosswalk at Short and Limestone Streets

In some cases, cities have policed themselves, and prohibited rainbow crosswalks based on the FHWA's guidance:

- In Kansas City, a proposal for a rainbow crosswalk was rejected based on the MUTCD.⁶
- St. Louis planners became aware of the FHWA's 2011 Interpretation Letter during a webinar in 2016, after which they realized that their *fleur de lis*, rainbow-colored, and other creative crosswalks were violating MUTCD standards. As a result, they prohibited further installations and let painted crosswalks fade away.⁷

Another option is to try to channel community interest in crosswalk art into placing art elsewhere. In Milwaukee, a gay pride organization's request for a rainbow crosswalk was refused by the Department of Public Works, but the DPW suggested other places in the public right-of-way that would be outside of the MUTCD's purview, such as "in an intersection or at mid-block (not crosswalks) and/or on sidewalks."⁸

Temporary Installations

- Atlanta, 2015: after initially giving an arts group permission to paint rainbow crosswalks at an intersection – with the intention that they be maintained permanently – the

⁶ *Startland*, "Pride underfoot: Founder's rainbow crosswalk movement met with resistance", June 4, 2019, <https://www.startlandnews.com/2019/06/rainbow-crosswalk/>

⁷ *St. Louis Post-Dispatch* online, "St. Louis will let crosswalk art that violates federal rules fade away", February 6, 2016, https://www.stltoday.com/news/local/metro/st-louis-will-let-crosswalk-art-that-violates-federal-rules/article_f878de6d-0c3c-5320-afd6-26d8099f6933.html

⁸ *Milwaukee Independent*, "Civic project proposes rainbow crosswalks to honor LGBT heritage of Cathedral Square", September 1, 2018, <http://www.milwaukeeindependent.com/articles/civic-project-proposes-rainbow-crosswalks-honor-lgbt-heritage-cathedral-square/>

Department of Public Works reversed course and said that the crosswalks would have to be removed following a gay pride event. A subsequent letter from the Mayor's office to a local media outlet cited the MUTCD's requirements as the reason for the reversal.⁹

<https://thegavoice.com/news/georgia/city-pulls-permanent-status-of-atlanta-rainbow-crosswalks/>

In many other cities, however, city officials have elected to fly directly in the face of the FHWA's guidance and allow and/or install rainbow crosswalks.

- Los Angeles, June 2019: the City debuted its first rainbow crosswalk, installed on Abbot Kinney Boulevard, a minor arterial.¹⁰
- Chicago, May 2019: the City of Chicago installed seven rainbow crosswalks in the Boystown neighborhood.¹¹
- Denver, 2018: a joint effort between local businesses and a member of the City Council resulted in a pair of rainbow crosswalks installed with thermoplastic materials "to create a permanent installation" on North Broadway – classified as an arterial.¹²

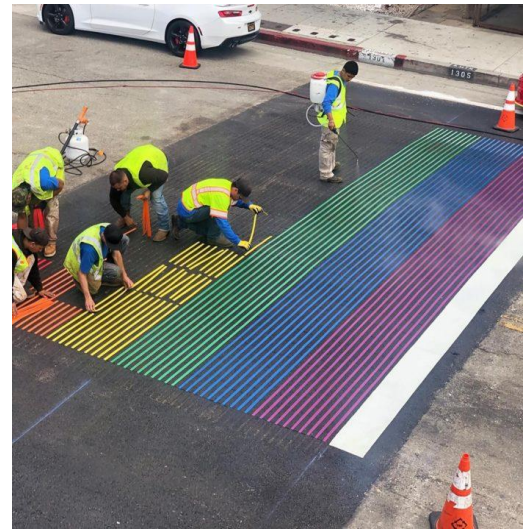


Figure B2 - Rainbow crosswalk being installed in Los Angeles, June 2019

⁹ *The Georgia Voice*, "City pulls permanent status of Atlanta Rainbow Crosswalks", September 15, 2017, <https://thegavoice.com/news/georgia/city-pulls-permanent-status-of-atlanta-rainbow-crosswalks/>

¹⁰ *Yo! Venice*, "LA's first rainbow crosswalk to be unveiled in Venice Friday", June 27, 2019, <https://yovenice.com/2019/06/27/las-first-rainbow-crosswalk-to-be-unveiled-in-venice-friday/>

¹¹ *Go Pride*, "Rainbow crosswalks arrive in Boystown just in time for Pride", May 30, 2019, <http://chicago.gopride.com/news/article.cfm/articleid/103173409/rainbow-crosswalks-arrive-in-boystown-just-in-time-for-pride>

¹² Broadway Rainbow Crosswalk, "About" page, <https://broadwayrainbowcrosswalk.weebly.com/about.html>.

MUTCD Compliant Crosswalks

There are opportunities within the FHWA's standards to add a creative touch to a crosswalk¹³, but there is a degree of subjectivity in determining what is and is not technically compliant.

The "Fishbone crosswalk" (Figure 3B) creatively interprets the MUTCD's standards. The artistic elements are primarily not in the traveled way and the portion of the crosswalk in the street is (or could easily be) comprised solely of MUTCD-derived elements.



Figure B3 – "Fishbone" Crosswalk - Montreal

In the same vein, the crosswalk in Figure B4 is both artistic and (likely) MUTCD compliant.

There are a variety of other examples of colorful patterns that appear to be MUTCD compliant. The Montgomery County, Maryland, Planning Department addressed this question head-on in a presentation at the APA National Conference in 2017, and provided examples of creative, but compliant, crosswalks (see Figure B5).¹⁴

(The examples from Montgomery County underscore the difficulty in establishing with absolute certainty that a design is compliant with the MUTCD. These examples include multiple colors, including blue (also seen in Austin's Creative Crosswalk example, Figure B6) and purple, which are called out in the FHWA's 2013 interpretation letter as colors with very specific uses on pavement. Are these crosswalks MUTCD compliant because of the way they use these colors? Or the amount of the color? Are they not compliant? It is unclear and likely to be subjective.)



Figure B4 – Zebra Crossing

¹³ Whether or not the very concept of a "creative crosswalk" is compatible with the MUTCD is a separate question. The FHWA's 2013 letter warns against any treatment that "attempts to communicate with the roadway user" – this could be interpreted as meaning any form of artistic representation beyond a very simple pattern. The City of Rochester's 2019 piano key crosswalk, which meets the letter of the FHWA's standards (a uniform, consistent, repetitive pattern in monochromatic paint) may be in defiance of the spirit of these standards since the design is intended to communicate the idea "piano" with drivers.

¹⁴ Presented by Margaret Rifkin, an Urban Designer and Planner with the Montgomery County, Maryland, Planning Department at the 2017 APA National Conference. The session, entitled "Tactical Urbanism: People and Pavement" also featured Mike Lydon, of the Open Streets Collaborative, and can be found online here: <https://montgomeryplanning.org/design/documents/NPC17-Tactical-Urbanism-People-and-Pavement%20Reduced%20Size.pdf>



Figure B5 – MUTCD-compliant Creative Crosswalks, as identified by the Montgomery County, Maryland, Planning Department



Figure B6 – Crosswalk on Lake Austin Boulevard in Austin, a product of the City's "Creative Crosswalks" program

Creative Crosswalks

Austin and Seattle both have official programs through which residents can add color and artistic touches to their crosswalks, although it should be noted that, as of this writing, Austin's program is "on pause".¹⁵

Austin's "Creative Crosswalks" program lets groups design patterns to be installed between the transverse crosswalk bars (and between the longitudinal bars of continental style crosswalks – see Figure B6). The City collects a fee to pay for the cost of installing the design. The program's guidelines prohibit the use of

¹⁵ The website for Austin's Creative Crosswalks program (<http://www.austintexas.gov/creativecrosswalks>), accessed on September 27, 2019, stated: "This program is currently paused for review. Program applications are not being taken at this time. Please revisit the program website at a later date."

octagons, triangles, text, and logos in crosswalk designs. Also, creative crosswalks are not allowed in school zones. The guidelines do not mention limiting color palates to earth tones or certain patterns.

Seattle's "Community Crosswalks" tries to actively thread the MUTCD needle by laying out guidelines for community designs that fit with FHWA's safety requirements:

- Images that convey messages appearing to advertise, or promote a private entity will not be accepted. No text or logos.
- The crosswalk design must include the two white horizontal markings with standard design and reflectivity to mark the edges of the crosswalk and ensure it meets minimum standards.
- Images that create a driver distraction or could be confused with traffic signs or traffic pavement legends will not be accepted.
- The design should contribute to the visual quality of the streetscape. For example, consider using a limited palette of colors and simple graphic images to avoid visual clutter. This will also keep costs down. If original artwork is being created, a lead artist/designer should be responsible for designing the images.¹⁶

While Seattle's guidance specifies a "limited palette" (which by definition would rule out a rainbow) and stresses simplicity, this guidance would not seem to prohibit the jigsaw piece pattern that the FHWA rejected in Buffalo's case. Based on the FHWA's 2011 and 2013 letters, the only acceptable crosswalk art would seem to be art that is barely noticeable: earth tones that simulate textured pavement.

Optical Illusion Crosswalks

In 2017, pictures of a "floating" crosswalk in Iceland started popping up on the Internet. The crosswalk is painted and shaded in such a way as to give a three-dimensional appearance – it looks like the crosswalk is floating just above the pavement. Based on a design originally developed in New Delhi, the intent of this crosswalk is expressly to slow traffic down by (essentially) creating the illusion that the crosswalk is an unavoidable obstacle in the street.¹⁷

¹⁶ For more information, see the Seattle Department of Transportation's "Community Crosswalks" website: <https://www.seattle.gov/transportation/projects-and-programs/programs/pedestrian-program/community-crosswalks>

¹⁷ *My Modern Met*, "3D zebra stripe crosswalk in Iceland slows traffic with stunning optical illusion", October 24, 2017, <https://mymodernmet.com/3d-crosswalk-iceland/>.

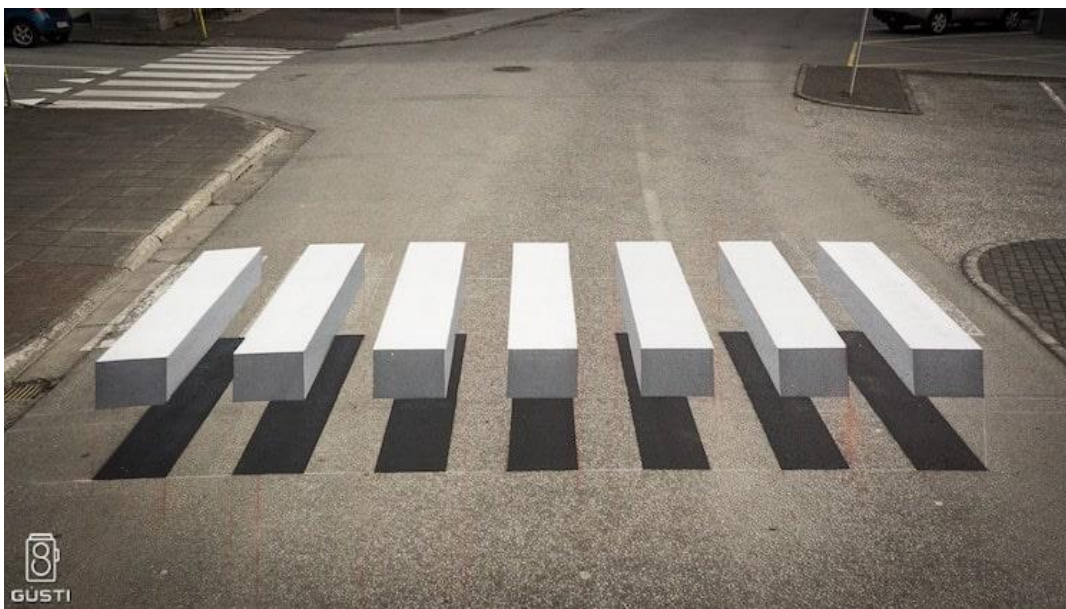


Figure B7 – Iceland's "Floating Crosswalk"

Source: <https://mymodernmet.com/3d-crosswalk-iceland/>

The so-called "Iceland Crosswalk" image gained a fair amount of attention online – so much so that in 2019 a group of fourth grade students in the Boston suburb of Medford lobbied for – and received – official permission to paint a 3D style crosswalk near their school.¹⁸ Medford now has plans to paint similar crosswalks near other schools in the city.

The FHWA's MUTCD Frequently Asked Questions (FAQ) website directly addresses the question of crosswalks that simulate a three-dimensional object, citing the results of field studies in its rejection of this approach:

Q: I've heard about a crosswalk design that simulates 3-dimensional (3-D) objects in the roadway. Is such a concept compliant with the MUTCD?

A: This concept does not comply with the MUTCD. As a result of demonstrated safety concerns, the FHWA is no longer considering field experimentation with "3-D" crosswalk designs. The FHWA had previously approved field experimentation with "3-D" markings until one such experiment showed unintended—and potentially dangerous—effects. A significant percentage of drivers swerved upon seeing the markings, perhaps perceiving them to be real raised objects on the roadway. While this type of driver reaction did decrease over time, the experiment showed that at least more than one in ten drivers might make an evasive or erratic maneuver upon experiencing this or similar installations for the first time. The results suggest that a "3-D" marking design can result in unsafe behavior by drivers. If the design is effective at portraying a 3-dimensional object and drivers believe there are real raised objects on the roadway, it is a reasonable expectation

¹⁸ Curbed Boston, "Medford 3D crosswalks appear to be a first for Boston region", April 23, 2019, <https://boston.curbed.com/2019/4/23/18512272/medford-3d-crosswalks>.

that drivers will take evasive action, such as braking abruptly, in fear of colliding with the perceived obstruction. This type of driver reaction is, in fact, what the experiment showed. The potential for a significant percentage of drivers to react unpredictably is too great a risk to allow further field experimentation.¹⁹

As with other crosswalks that run counter to the MUTCD, it is not clear how Medford's (and other cities') three-dimensional crosswalks will fare in the face of FHWA's direct opposition to this design.

Intersection Murals

According to the FHWA, intersection murals that do not involve crosswalks are not covered by the MUTCD. The FHWA's MUTCD FAQ site states: "Exclusive of a crosswalk that may be present, intersection murals and street artwork are not traffic control devices and the MUTCD most likely does not directly apply." However, the FHWA guidance goes on to say that Article 23 of the Code of Federal Regulations (Section 1.23) *does* prohibit intersection murals because the law "provides that all property within the right-of-way boundaries shall be devoted exclusively to public highway purposes."²⁰ Intersection murals and street artwork have a potential to compromise motorist safety by interfering with, detracting from, or obscuring official traffic control devices."²¹

23 CFR 1.23 itself does not prohibit intersection murals, and the SMTC is not aware of more formal guidance from the FHWA, such as an interpretation letter specific to this subject. As long as intersection murals are designed to avoid encroaching on marked or unmarked crosswalks, there would seem to be no significant constraints on how they are designed.

More than any other US city, Portland, Oregon has allowed and encouraged residents to install artwork in intersections (see Figure B8). The City of Portland's Block Party Street Closure Permit Application asks applicants: "Is this block party for a street painting project?"²² Portland actively offers residents the opportunity to re-create public space with intersection murals. The program is popular, with approximately 70 street painting locations throughout the city (including mid-block locations) created since 1996.²³

¹⁹ From FHWA's MUTCD "Frequently Asked Questions – Part 3 - Markings" website, last modified June 12, 2019, https://mutcd.fhwa.dot.gov/knowledge/faqs/faq_part3.htm#cwq4

²⁰ The FHWA's position on this question seems to be open to debate. 23 CFR Section 1.23 states (in part) "Except as provided under paragraph (c) of this section, all real property ... within the right-of-way boundaries of a project shall be devoted exclusively to public highway purposes." The statute goes on to say that "the Administrator" can approve the temporary or permanent use of right-of-way for nonhighway purposes if the use is in the public interest and does not interfere with the free and safe flow of traffic." This would seem to make the approval of murals, like parklets or curb extensions, dependent on "the Administrator's" preferences – by no means an outright prohibition of intersection murals. Also, unlike the MUTCD's control over all signage on all public roads, 23 CFR 1.23 appears to apply only to state-owned federal-aid facilities.

²¹ From FHWA's MUTCD "Frequently Asked Questions – Part 3 - Markings" website, last modified June 12, 2019, https://mutcd.fhwa.dot.gov/knowledge/faqs/faq_part3.htm#cwq4

²² Portland in the Streets Block Party Street Closure Permit Application for Residential and Non-Commercial Applicants, https://www.portlandoregon.gov/transportation/article/581942?utm_medium=email&utm_source=govdelivery

²³ *Supporting Successful Street Paintings*, Cheryl L. Kotz, Master's Thesis, University of Wisconsin, 2017.

Intersection murals can help foster a sense of place and they provide a group activity for members of a neighborhood who might otherwise have minimal interactions. Portland has a process for accepting, reviewing, and allowing street painting projects, including a requirement that all adjacent residents and 80 percent of residents within 400 feet of a project approve its design.



Figure B8 – Intersection Murals, Portland, Oregon

Source: City Repair Project website, <https://cityrepair.org/new-gallery-1>

Pop-up Projects

General

The SMTC is not aware of any official guidance from the FHWA on how municipalities should apply MUTCD standards to pop-up projects that are, in many cases, designed and installed by volunteers. The MUTCD provides extensive guidance on Temporary Traffic Control Devices (MUTCD Chapter 6F), suggesting that the ephemeral nature of pop-up projects does not exempt them from MUTCD control. A representative of WalkDenver, a group that works with the City of Denver to plan and install pop-up projects, reported that the city's engineers work to ensure that traffic control devices for one-day pop-up events are MUTCD compliant to the greatest extent possible.²⁴ Similarly, the City of Burlington's Department of Public Works reports that citizen-led projects are generally compatible with the MUTCD's requirements²⁵.

Fayetteville, Arkansas, provides guidance to project sponsors in its Tactical Urbanism Application. Regarding the MUTCD, it states:

We highly encourage applicants to familiarize themselves with the rules for street markings and street designs. The Manual on Uniform Traffic Control Devices (MUTCD) and the Americans With Disabilities Act (ADA) both contain important information about safety, accessibility, and design standards. These standards are periodically updated.

²⁴ Phone conversation with Jessica Vargas, WalkDenver, July 29, 2019.

²⁵ Phone conversation with Nicole Losch, Burlington Department of Public Works, July 11, 2019.

Please consider the current MUTCD and ADA street guidelines before submitting your application.²⁶

In reality, some project sponsors are unlikely to be able to absorb the MUTCD's detailed standards to the degree that they will be able to design a facility perfectly to those standards. A pop-up protected bike lane in Macon, Georgia, reportedly gave local engineers "heartburn" because the project's sponsors "wanted to put temporary markings on a major state route and you just can't do that."²⁷

Curb Extensions & Median Islands

As restrictive as the FHWA is regarding crosswalks, one might expect the agency to take a similar attitude toward other safety enhancements, such as curb extensions and median islands. However, a 2017 Informational Brief from the FHWA's Office of Operations states that these treatments "are not considered to be traffic control devices" and "can be implemented for a particular crossing if their use would be appropriate based on the specific conditions at the site", like roadway geometrics and traffic speeds and volumes.²⁸

On the subject of temporary curb extensions, this Information Brief specifically states that "neckdown of the street width at the crosswalk can be accomplished on an interim basis using markings and flexible delineator posts to achieve a traffic calming effect similar to that of a curb extension."

Conclusion

The question "What can and cannot be allowed in the public right-of-way?" is being answered differently by cities across the country, creating a spectrum of reactions. At one end are cities like Kansas City and St. Louis, which have said that they cannot allow rainbow crosswalks and have formally ended maintenance support for existing creative crosswalks. At the other end are cities like Los Angeles and Chicago, which have openly embraced rainbow crosswalks as a form of public art that makes an important political statement. Many cities find themselves somewhere in between: trying to accommodate residents' requests for more distinctive crosswalks while not running afoul of the FHWA's specifications.

If the City of Syracuse is going to give residents the opportunity to design and/or install creative elements in the public right-of-way, it should consider the following regarding the MUTCD:

- The crosswalk is a highly-regulated, relatively small piece of the public right-of-way with an important safety function.
- According to the FHWA, the MUTCD applies to all public roads and streets in the United States, regardless of ownership or functional class. In the course of this research, no cases were found of municipalities (or anyone else) attempting to challenge the FHWA on this point. Municipalities that have installed rainbow crosswalks or allowed other creative

²⁶ City of Fayetteville, *Tactical Urbanism Permitting Process, Application, & Materials Guide*, <https://fayetteville-ar.gov/DocumentCenter/View/13073/Tactical-Urbanism-Application--Interactive?bidId=>.

²⁷ *Next City*, "Pop-up Bike Network Leads to Permanent Change", July 10, 2017, <https://nextcity.org/daily/entry/macon-pop-up-bike-network-permanent-bike-lanes>.

²⁸ FHWA Office of Operations, "Informational Brief: Treatments for Uncontrolled Marked Crosswalks", December 2017, https://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/informationalbrief/informationalbrief.pdf.

displays in the public right-of-way have not stated that they specifically avoided certain streets/functional classifications.²⁹

- Determining whether or not a creative crosswalk design is MUTCD-compliant can be difficult, even given the FHWA's extensive guidance.
- Allowing non-MUTCD-compliant crosswalk art does not appear to come with serious consequences. In some cases, city officials have been officially reprimanded by the FHWA officials in their area. The threat of lost federal funding is one of the few levers the FHWA has at its disposal, but cases of federal funding being withheld because of a creative crosswalk were not discovered in this research. The question of increased liability should be discussed with the City's Corporation Counsel.
- The City should encourage intersection murals that do not encroach on marked or unmarked crosswalks. Murals provide a larger space for creative designs than crosswalks, and can help define a neighborhood's gateway points.
- The City should ensure, to the greatest degree possible, that short-term projects' traffic control devices are MUTCD-compliant.
- Pop-up projects and long-term demonstration projects that add features like curb extensions and center medians should be encouraged where appropriate.

²⁹ In the context of general tactical urbanism projects, this question is not as straight-forward: some municipalities instruct pop-up project applicants to avoid state-owned facilities. This may have more to do with the difficulty in getting approvals for any project on state facilities than with specific concerns related to the MUTCD.