

Quick-Build Street Design

Quick-build projects can spur the development of more walkable and bikeable streets



Quick-build project in San Francisco, CA (Photo courtesy of SFMTA)

The Impact

Quick-build projects make streets safer for all users, including pedestrians, bicyclists, and motorists by calming traffic, reducing vehicle speeds, and creating more visible and protected spaces for non-motorized users. These developments are a fast and cost-effective way to gather data and community feedback related to circulation changes. They allow community members to physically experience temporary street changes before funding infrastructure improvements.

Description

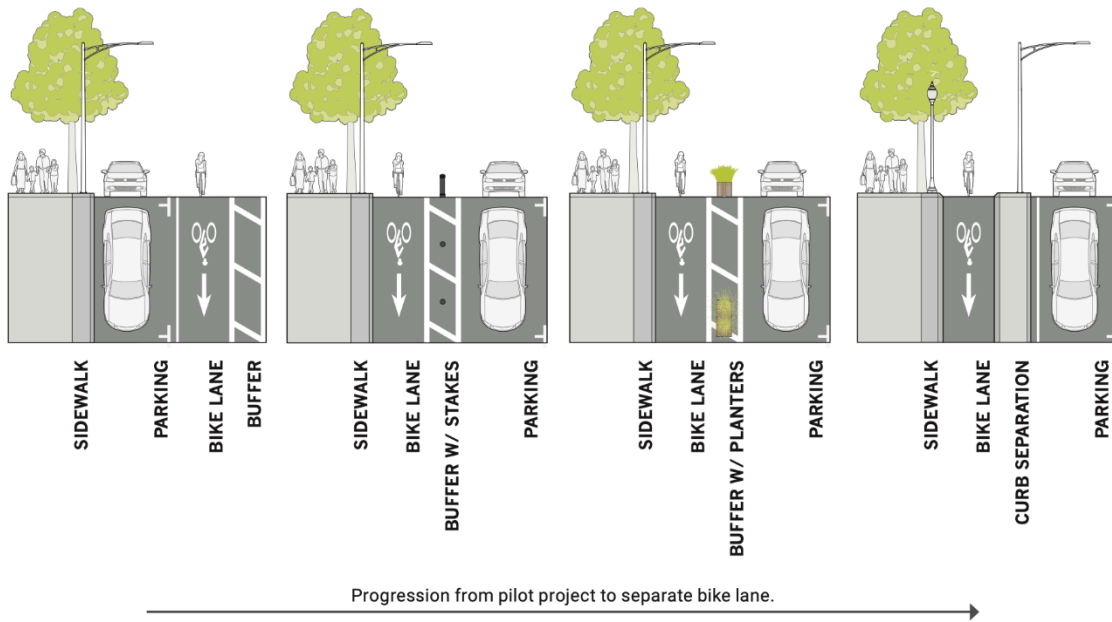
Quick-Built Design refers to the use of low-cost, temporary changes to the urban environment, especially streets, to improve neighborhood livability and to make streets safer for pedestrians and cyclists. This approach is often used to test and demonstrate the potential benefits of more permanent changes. Another urban planning and transportation design that aims to improve the functionality and safety of streets is Complete Streets. However, the implementation of Complete Streets can be a long-term process. On its website, CalBike notes that “from conception to inclusion in a community plan, project planning, community engagement, grant application, grant award, additional engagement and project amendment, grant expenditure (often many years after the award) and, finally, project construction, a project can easily take more than 10 years.”

Quick-build street design tackles high-priority street improvement projects with low-cost measures. Using materials such as paint, plastic bollards, planters, and signs, cities can construct facilities such as pedestrian bulb-outs and protected bike lanes within weeks. Due to their low cost and reversible nature, these installations offer community members a chance to physically experience street improvements in use, rather than just trying to visualize them from computer renderings.

These temporary installations also help cities gather information on changes to traffic flow and transportation demand. The temporary elements can be continually modified (for example, by moving a bollard or restriping a lane) in response to public feedback. Eventually, these temporary improvements

can be turned into more permanent fixtures, although many quick-build facilities can last for years with the proper maintenance.

Here is a progressive plan for a bike lane in San Mateo, Calif.



City of San Mateo Bicycle Master Plan (Photo courtesy of City of San Mateo)

Another example of quick-build street design is a temporary transit-only lane. These lanes, reserved for use by buses only, have served as a quick and effective method for cities looking to speed up bus service with limited driver pushback. To facilitate faster MUNI bus lines during the COVID-19 pandemic, the San Francisco Metropolitan Transportation Agency (SFMTA) built over six miles of transit-only lanes on multiple different popular segments, including parts of Geary, Mission and California streets. Planning and installation only took a few months — a giant difference when compared to the multiple years it has taken to construct a Bus Rapid Transit line on a busy street like Van Ness.

According to [SFMTA's website](#), “the temporary emergency transit lanes will be striped only with white paint and identified with “Bus/Taxi Only” stenciling making them easily reversible.” The lanes were found to reduce overall trip time and lead to a higher average bus speed. Evaluation and outreach shows positive feedback from riders, and multiple transit-only lanes in San Francisco have been approved as permanent.

Where it’s Been Implemented

In May 2014, Seattle Mayor Ed Murray issued a mayoral mandate declaring that Second Avenue would get a protected bike lane by the fall. Within four months, the Seattle Department of Transportation conducted community outreach and created a bidirectional buffered bike zone. Subsequent evaluations revealed that this tripled bike usage on that street.

The City of San Mateo plans to use quick-build projects to create a new bike network, according to its Bicycle Master Plan 2020. As of January 2024, nine bike projects have been completed, and four are in progress or upcoming.

Key Drivers

Many cities are incorporating Complete Streets elements in their communities. However, 90% of projects are long-term, high-capital projects that can take 5 or more years to realize. The demand for Complete Streets has continued to grow, but construction projects often fail to keep up. Moreover, due to the COVID-19 pandemic, there was an immediate demand for more streets that allow walkers and bikers to be safely distanced. Quick-build projects can rapidly implement the needed street improvements.

Key Factors for Success

Cities with successful quick-build programs have established interdepartmental working groups that analyze potential projects and implement them in accordance with local transportation master plans.

By involving local groups, this model empowers the community to champion quick-build projects. This community-driven approach ensures that projects face minimal public opposition. Cities can create a process that makes space for community members to inspire and guide the development of quick-build improvements. For example, the City of Fayetteville, Ark., offers a “Tactical Urbanism” permit application that invites residents to take an active role in improving their own neighborhoods. Residents with an idea for a quick-build development can apply for a permit and, if approved, can rally the community to implement these ideas using cones, plants, signs, etc.

In most cases, cities rely on local funding to pay for these improvements. Federal funds are available for cycling and pedestrian improvements, but the long approval and allocation process often makes this funding incompatible with the rapid pace of quick-build projects. Quick-build projects are often inexpensive, especially when it is possible to repurpose existing construction and event infrastructure. In a time of tight budgets, repurposing items such as cones, planters and signs from other city departments reduces their cost.

To do quick builds, cities often find themselves unable to rely on traditional bidding processes. Instead, many cities use on-call IDIQ (Indefinite Delivery, Indefinite Quantity) contracts to maintain project flexibility. Some cities also utilize volunteer work to complete projects such as filling in crosswalks with paint, further reducing project costs.

Key Obstacles

Outspoken NIMBY (“not in my backyard”) advocates can be a barrier for quick-build projects. Even with their low cost and reversible nature, quick-build projects can be opposed by community members who fear change. However, the “temporary” nature of quick-build alleviates fears, and residents may find the changes positive in reality. Even if there remain negative opinions, the support of other community members who like the quick-build projects can help keep them in place.

Timeline to Implementation

In Redwood City, Calif., city staff identified Vera Avenue as an excellent candidate for a quick-build bike boulevard as part of the citywide transportation plan. The city issued a Request for Proposal (RFP) in October 2019 for design, community outreach support, construction support and post-construction evaluation. The conceptual design was completed in February 2020. Due to COVID-19, construction was delayed over a year. Bidding for construction opened in May 2021, the chosen contract was approved in August 2021, and construction started in December 2021 and was completed in April 2022. Redwood City then conducted a neighborhood survey and community workshop that same month to get feedback and identify possible future modifications. After a post-construction traffic study in the summer, by December 2022, the city had made modifications.

Results of the survey showed that the majority of respondents wanted Vera Ave to transition to a permanent bicycle boulevard. By January 2023, Redwood City received a grant to advance the design phase for the permanent bicycle boulevard and additionally conduct neighborhood outreach.

References and Resources

- Sue-Ellen Atkinson, Principal Transportation Planner, City of San Mateo, seatkinson@cityofsanmateo.org
- NACTO. [Quick Builds for Better Streets](#)
- CalBike. [Quick-Build Street Design: What It Is and Why We Need It](#)
- Burlington, VT. [Quick Build Design Materials and Standards](#)
- Metropolitan Transportation Commission (MTC) of the San Francisco Bay Area. [Accelerating Quick Build for Complete Streets](#)
- MTC Quick Build Webinar Series. [Adapting Streets During Uncertain Times: Using Quick Build to Create Resilient Streets](#) and [Constructing Projects Rapidly for Social Distancing, Planning for Social Cohesion](#)
- Redwood City, CA. [Vera Avenue Bicycle Boulevard Project RFP](#), [Conceptual Design for Vera Street](#), [BPAC Request for Reallocation](#), [Bids & Proposals for Vera Avenue Bicycle Boulevard Project](#), and [Vera Avenue Bicycle Boulevard Project Updates](#)
- San Mateo, CA. [Bicycle Master Plan](#) and [Implementation Updates](#)
- San Francisco, CA. [Temporary Emergency Transit Lanes](#), [Muni Emergency Measures Point to Longer Term Transit Goals](#), and [It took 27 years and \\$300 million. Will S.F. Van Ness BRT improve traffic congestion?](#)
- Fayetteville, AR. [Tactical Urbanism Permitting Process, Application and Materials Guide: A Guide to Community-Led Placemaking Projects](#)
- Seattle, WA. [Mayor Announces 2nd Ave Bike Lane](#) and [2nd Ave Bike Traffic Triples](#)

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