



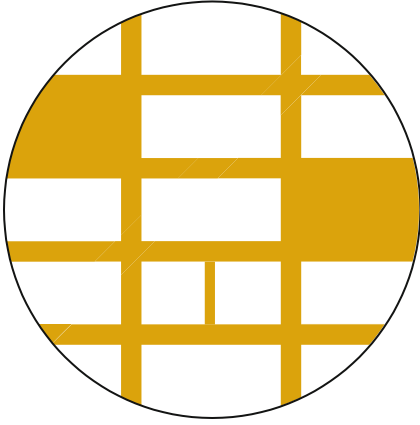
Street Design Principles

The *Urban Street Design Guide* crystallizes a new approach to street design that meets the demands of today and the challenges of tomorrow. Based on the principle that streets are public spaces for people as well as arteries for traffic and transportation, this guide foregrounds the role of the street as a catalyst for urban transformation. It cements the tactics and techniques being pioneered by the nation's foremost urban engineers and designers.

Key Principles

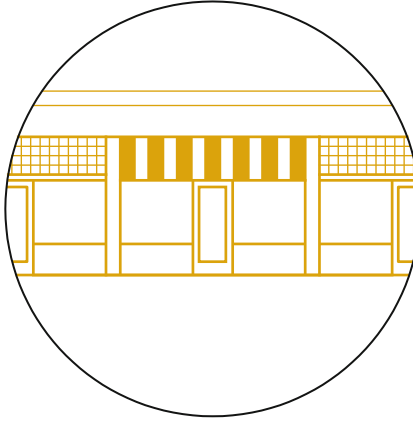


In an urban context, street design must meet the needs of people walking, driving, cycling, and taking transit, all in a constrained space. The best street design also adds to the value of businesses, offices, and schools located along the roadway.



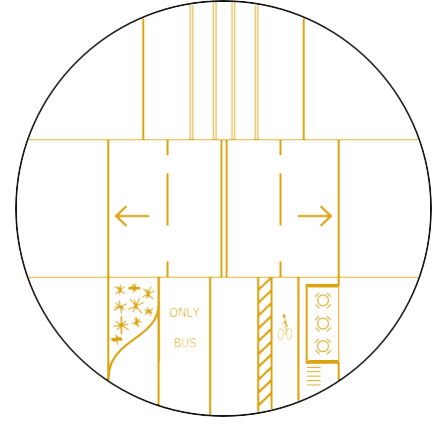
Streets Are Public Spaces

Streets are often the most vital yet underutilized public spaces in cities. In addition to providing space for travel, streets play a big role in the public life of cities and communities and should be designed as public spaces as well as channels for movement.



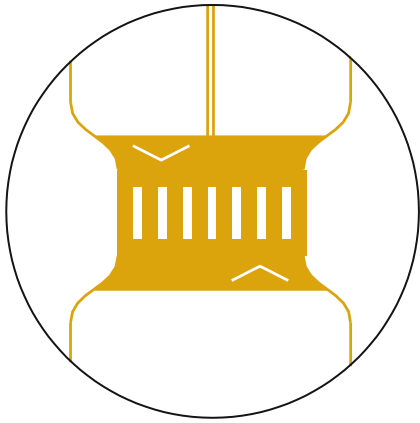
Great Streets are Great for Businesses

Cities have realized that streets are an economic asset as much as a functional element. Well-designed streets generate higher revenues for businesses and higher values for homeowners.¹



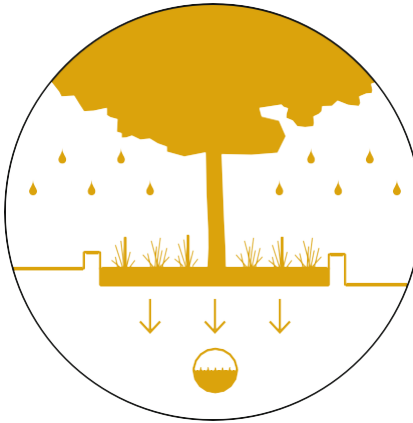
Streets Can Be Changed

Transportation engineers can work flexibly within the building envelope of a street. This includes moving curbs, changing alignments, daylighting corners, and redirecting traffic where necessary. Many city streets were built or altered in a different era and need to be reconfigured to meet new needs. Street space can also be reused for different purposes, such as parklets, bike share, and traffic calming.



Design for Safety

In 2012 in the U.S., over 34,000 people were killed in traffic crashes, which were also the leading cause of death among children aged 5–14. These deaths and hundreds of thousands of injuries are avoidable. Traffic engineers can and should do better, by designing streets where people walking, parking, shopping, bicycling, working, and driving can cross paths safely.



Streets Are Ecosystems

Streets should be designed as ecosystems where man-made systems interface with natural systems. From pervious pavements and bioswales that manage stormwater run-off to street trees that provide shade and are critical to the health of cities, ecology has the potential to act as a driver for long-term, sustainable design.



Act Now!

Implementing projects quickly and using low-cost materials helps inform public decision making. Cities across the U.S. have begun using a phased approach to major redesigns, where interim materials are used in the short term and later replaced by permanent materials once funding is available and the public has tested the design thoroughly.

Phases of Transformation

The streets shown in this guide are depicted in three stages of transformation: existing, interim, and reconstruction.

Interim design changes for streets can be carried out using low-cost materials. These interim design strategies realize the benefits of

a full reconstruction in the short term, and can help build support for projects or test their consequences. While not all projects should or need to go through these three phases, many projects can benefit from this approach.

Existing

Existing conditions demonstrate how traditional design elements, such as wide travel lanes and undifferentiated street space, have had an adverse impact on how people experience the streetscape.



Interim Redesign

Striping and low-cost materials can realize the benefits of a full reconstruction in the short term, while allowing a city to test and adjust a proposed redesign.



Reconstruction

Full capital reconstructions can take 5–10 years. A complete upgrade might include new drainage and stormwater management provisions, raised bikeways, wider sidewalks, and traffic calming elements.



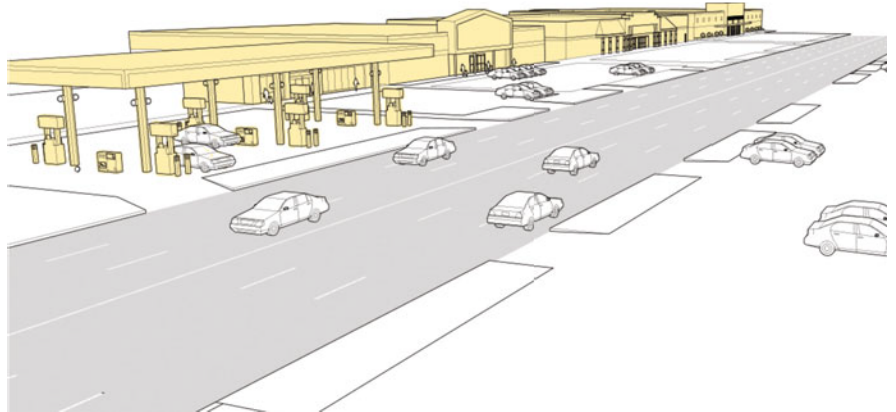
Street Design in Context

Context is a crucial, yet often overlooked, parameter in designing streets. Street design should both respond to and influence the desired character of the public realm.

Rooted in city goals and policies, designers can work to enhance their surroundings by fulfilling the visions and desires of adjacent communities through street design.

Commercial Strip

A single corridor can pass through multiple environments within the city, each with a different character and usage pattern. At right, a roadway passes through an auto-oriented commercial zone but has the same right-of-way as the two streets below.



Residential Boulevard

The same right-of-way serves a different purpose as it passes through a residential area. In this environment, the street can be used for plantings, on-street parking, and shaded sidewalks.

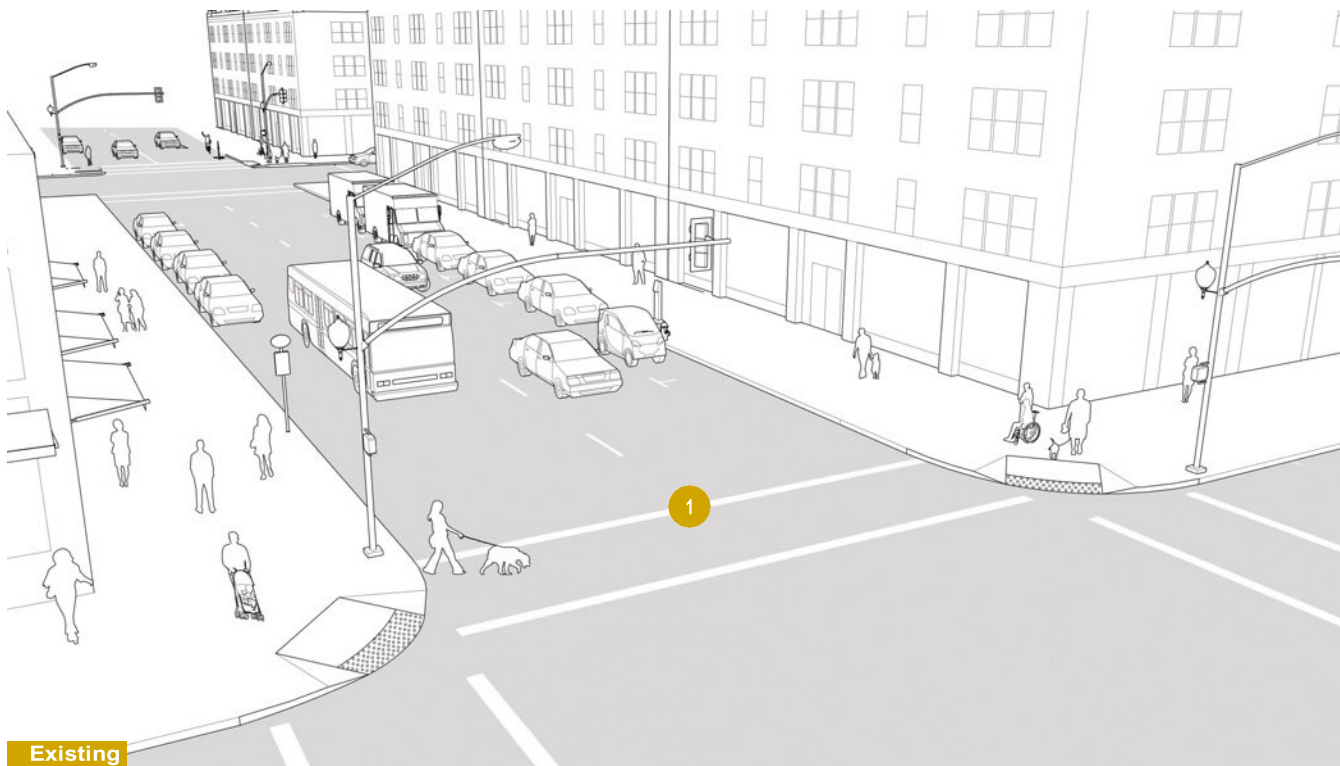


Downtown Street

In the heart of the commercial district, the right-of-way becomes a busy, downtown space full of buses, bikes, cars, and pedestrians.



Downtown 1-Way Street



Existing

In the mid-20th century, many 2-way downtown streets were converted to 1-way operation to streamline traffic operations, reduce conflicts, and create direct access points to newly built urban freeways. Today, many of these streets operate significantly below capacity and create swaths of empty pavement in downtown areas. While many cities are converting these streets back to 2-way operation, these broad roadways can be narrowed using cycle tracks and transit lanes, which require less cost and analysis, and optimize usage of the street as a public space.

EXISTING CONDITIONS

The existing conditions shown in the illustration above are typical of many city streets in the downtown core. Many of these streets have been designed for a 15-minute peak period and remain well below capacity at other times of day.

- 1 Undifferentiated street space and wide travel lanes can result in higher speeds and are an ineffective use of valuable street space.

Many downtown 1-way streets have travel lanes with extra capacity or peak-hour restricted parking lanes.

Bicyclists feel uncomfortable riding between fast-moving traffic and the door zone. Double-parked vehicles may cause bicyclists to weave into traffic unpredictably, creating unsafe conditions for both motorists and bicyclists.

RECOMMENDATIONS

- 2 On downtown streets with heavy bus traffic, a red bus-only lane may be applied at curbside or offset. Bus-only lanes require significant enforcement and may be encroached upon by double parked cars and loading vehicles without proper enforcement. Combine bus-only lanes with bus bulbs, shelters, and transit signal priority to increase their effectiveness.

Analyze existing traffic volumes to determine whether or not peak-hour lanes can be removed and converted to on-street parking, bus or bike lanes, or additional sidewalk space. Converting underutilized travel lanes to other uses can eliminate potential conflicts within the roadway and improve traffic operations.



Reconstruction

3 A raised cycle track or parking-buffered cycle track applied on the left side of a 1-way street, removes cyclists from potential conflicts with bus traffic and creates a pedestrian safety island that decreases exposure time for pedestrians. Note: 2-way cycle tracks can also function effectively on 1-way streets in some instances. Where 2-way cycle tracks are installed, consider mitigating contra-flow turn conflicts by using bicycle signals, turn restrictions, and other means that improve visibility and slow motorists turning at the intersection.

4 As part of a full reconstruction, consider widening sidewalks, especially when they have previously been narrowed in favor of additional travel lanes.

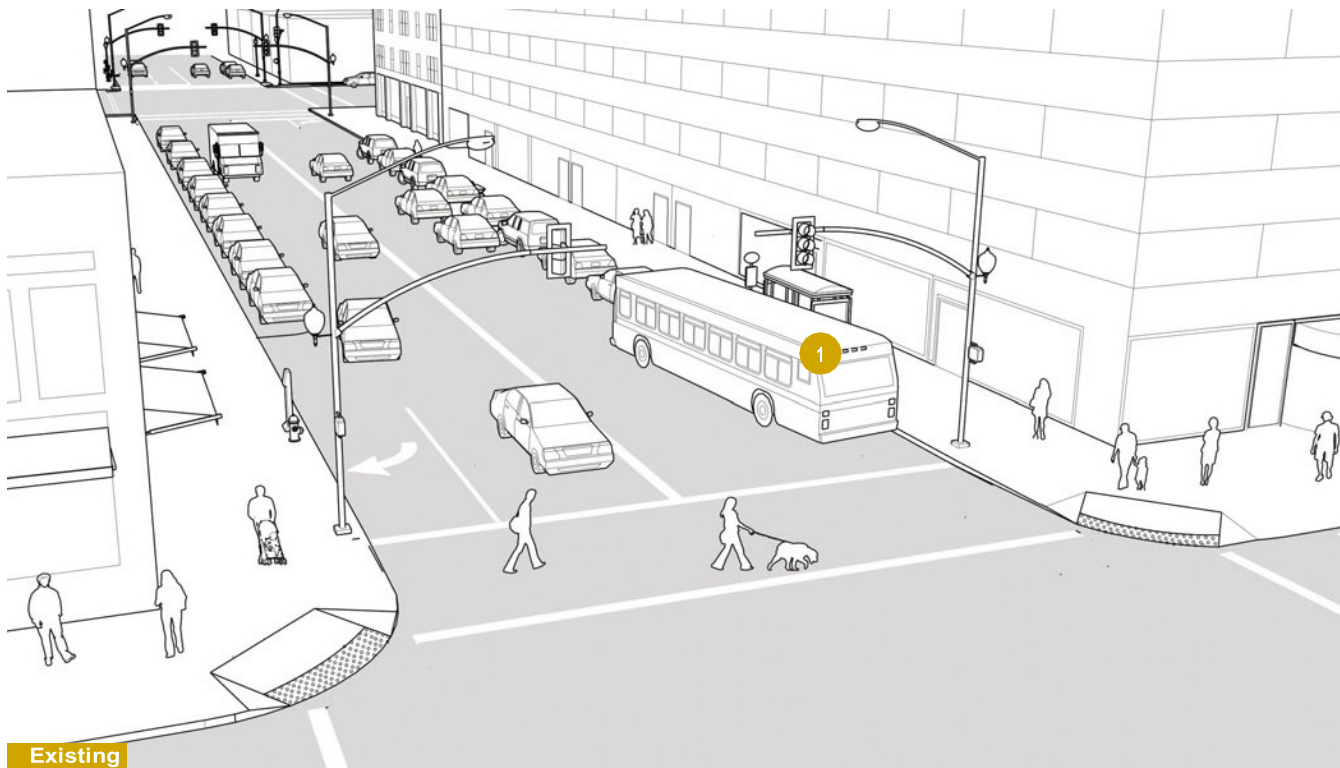
The street illustrated above depicts a 46-foot roadway within an 86-foot right-of-way.



NEW YORK, NY

In 2010, 1st Avenue in New York City was redesigned with a 1-way cycle track, Select Bus Service, and pedestrian safety islands. The redesign not only carved out room for bicyclists, but shortened long, unsafe crossings for pedestrians. The avenue has since become a model for the successful transformation of the city's major avenues.

Downtown 2-Way Street



Busy downtown 2-way streets are often the most difficult streets for cities to reconfigure and retrofit. Many of these streets suffer from double parking and loading conflicts, have heavy turn volumes, and offer insufficient accommodations for bicyclists and pedestrians. Retrofit constrained 2-way streets using lane diets and conventional bike lanes or add cycle tracks that decrease the overall width and offer a higher quality bicycle facility.

EXISTING CONDITIONS

The above illustration depicts a constrained 2-way street in a central business district. While many downtown streets were converted to 1-way operations, many were not, resulting in streets that are heavily congested by buses, bikes, people, and cars. Especially in older cities, these streets may be a main route for multiple modes.

1 On major bus routes, curbside bus stops may be undermined by double-parked vehicles and heavy rush-hour traffic. These obstructions hurt the reliability and on-time performance of transit vehicles.

A lack of organization and striping can invite unintended uses and double-parking.

Freight vehicles double-parking at peak hours create weaving conflicts and safety hazards for motorists and bicyclists.



CHICAGO, IL



SAN FRANCISCO, CA



Interim Redesign

RECOMMENDATIONS

2 Bus bulbs serve as dedicated waiting areas for transit users while decreasing pedestrian exposure during crossings. Far-side placement is preferable to near-side when possible. Apply turn restrictions for near-side bus bulbs where right-turning vehicles are likely to queue in the right lane. Bus bulbs may be created in the near term without affecting drainage if slightly offset from the curb or designed as a bus-boarding island with a bicycle cut-through.

3 Create definition in the roadway using striping, cycle tracks, and narrow travel lanes.

4 Cycle tracks require special attention at intersection crossings. Conflicts should be highlighted using intersection crossing markings with the application of color optional. Bicycle signals may need to be applied for bicycle traffic to operate safely along the corridor, though bikes may use pedestrian signals in an interim design. Turning conflicts may be reduced through the implementation of turn restrictions.

5 Restricting freight delivery or encouraging off-peak freight delivery is critical to eliminating double-parking obstructions. Off-peak deliveries are faster and more cost-efficient and avoid obstruction of the bike lane or delays to buses and local traffic. At peak loading times, dedicated loading zones should be provided to avoid the need for freight vehicles to double-park. Designers may also consider the use of wide parking lanes in these situations.¹

The street illustrated above depicts a 50-foot roadway within an 80-foot right-of-way.



SEATTLE, WA

This street in Seattle uses a planted central median to create a street geared towards slower speeds.

Downtown Thoroughfare



Existing

Major streets that connect neighborhood centers or run through the downtown can be daunting for pedestrians to cross, depressing property values and the quality of the public realm as a result. While many of these streets have significant traffic volumes at peak hours and bustle with activity throughout the day, there are opportunities to improve these corridors for everyone using them. Add a central median and cycle tracks to enhance the experience of the street and to reduce its overall width.

EXISTING CONDITIONS

The illustration above depicts a major 2-way downtown arterial with 6–8 lanes of traffic. This street runs directly through the heart of the city and is a major connector to other neighborhoods. The street has heavy turn volumes and multiple signal phases, making it a barrier for people to cross.

Left turns are a frequent source of conflict between motorists and pedestrians and a common cause of head-on collisions.

Buses experience frequent delay due to the encroachment of parked cars, loading freight vehicles, and through traffic. Bicyclists lack any accommodation on the street whatsoever, forcing many to utilize the sidewalk as an alternative.

RECOMMENDATIONS

- 1 Assess left-turn volumes and evaluate the overall traffic network to determine whether or not left turns can be restricted or removed at a particular intersection. Where left turns must be retained, consider split-phasing options that provide a dedicated left-turn phase.
- 2 A parking-buffered 1-way cycle track, applied on each side of the street, offers a high-quality experience to bicyclists.
- 3 The cycle track may also be combined with an offset bus-boarding island and other amenities that improve operations for pedestrians and transit users.



4 At intersections, 1-way cycle tracks may either mix with right-turning vehicles in a “mixing zone,” or, where turn volumes compromise bicyclist comfort and safety, be given a dedicated bicycle phase.

As an alternative to the treatment shown above, a 6-foot pedestrian safety island and dedicated left-turn bay may be retained at the intersection by tapering the bike lane buffer and shifting the rightmost travel lane.

Many major urban arterials with commercial strip development may be reconfigured using the same principles as described above. In such cases, land use changes and access management should be coordinated with the overall vision and redesign of the street.

The street illustrated above depicts an 84-foot roadway within a 114-foot right-of-way.



BROOKLYN, NY

Striping and left-turn pocket closures provide a better pedestrian safety area.

Neighborhood Main Street



Neighborhood main streets are a nexus of neighborhood life, with high pedestrian volumes, frequent parking turnover, key transit routes, and bicyclists all vying for limited space. Main-street design should limit traffic speeds and create a narrower profile with frequent, high-quality pedestrian crossings. In recent years, many main streets have been significantly improved through road diets and the conversion from 4 to 3 (or 6 to 5) lanes of travel with bike lanes and a center turning lane or median.

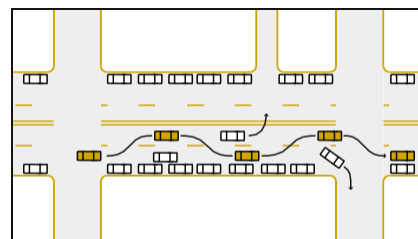
EXISTING CONDITIONS

The illustration above depicts a main street with 4 lanes of traffic. With medium traffic volumes and high pedestrian activity, the street has significant potential for regeneration as a retail district, yet currently underperforms for those who shop, eat, and walk there. Frequent destinations have resulted in multiple turning and weaving conflicts along the street.

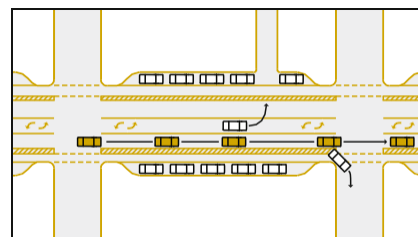
- 1 4-lane configurations have been shown to increase rear-end and sideswipe vehicle crashes and pose a higher pedestrian crash risk.¹

RECOMMENDATIONS

While road diets are not appropriate on all 4-lane cross sections, streets carrying up to 25,000 vehicles per day function effectively with 3 lanes, depending on the traffic volumes of nearby adjacent streets.²



The weaving line in the 4-lane configuration shows the pattern of a driver avoiding double-parked vehicles and drivers turning left and right.



In a 3-lane configuration, the weaving and conflicts are eliminated.



Reconstruction

Road diets can improve traffic flow and reduce conflicts with turning vehicles, while increasing a road's efficiency by channeling turning vehicles out of the through lanes. Streets designed with either 2 lanes or a 2-way left-turn lane can cut crash risk by nearly half.³

Implementation of a road diet should consider the availability of parallel routes, the potential for mode shift, and the channelization of traffic using additional signals.

2 Turn lanes can help to eliminate weaving conflicts on 4-lane roads. As an alternative to the illustration above, a 6-foot pedestrian safety island can be retained in the above configuration by tapering the bike lane buffer near the intersection and shifting the through lanes to the right.

3 The application of a road diet may be carried out in two phases, the first consisting solely of striping and a center turn lane, and the second, of medians and plantings to complement the center lane.

4 From an economic standpoint, road diets often rank favorably with business owners and have a positive impact on local business activity.⁴

5 Bike boxes help cyclists make left or right turns by placing them in front of traffic at a red light. On streets with higher traffic volumes, cyclists may choose to make a two-stage turn.

6 Parklets are ideal for neighborhood main streets with active storefronts, heavy foot traffic, and lots of retail activity.

7 Streets with both heavy freight and parking demand, as well as on-street bike lanes, benefit from dedicated loading zones near the intersection. Loading zones help reduce obstruction of the bike lane and make deliveries easier for businesses. Loading zones can be striped and signed, or managed for off-peak deliveries.

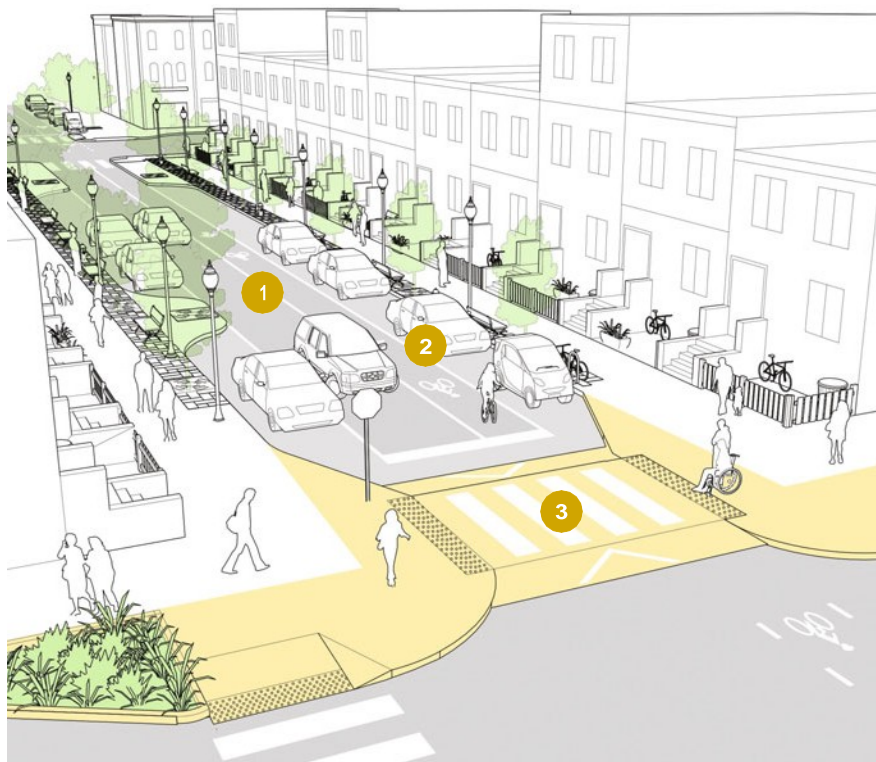
The street illustrated above depicts a 64-foot roadway within a 94-foot right-of-way.



BROOKLYN, NY

Neighborhood Street

Local streets in residential neighborhoods are often underutilized as spaces for play and leisure. These streets should provide safe and inviting places to walk with direct access to local stores and schools. Design for local streets can combine stormwater management features, curb extensions, vertical speed control elements, and bicycle facilities that encourage safe speeds and meter through traffic.



RECOMMENDATIONS

- 1 On 1-way neighborhood streets, travel lanes may be striped to narrow the perceived width of the roadway. An undifferentiated traveled way encourages higher speeds. Crash rates have been shown to increase as lane width increases.
- 2 Left-side bike lanes reduce the risk of dooring conflicts and are an effective treatment for most neighborhood streets.
- 3 Raised crosswalks or curb extensions maintain safe travel speeds and reinforce the residential nature of the street.¹

The street illustrated above depicts a 30-foot roadway within a 50-foot right-of-way.



CAMBRIDGE, MA

Bike lanes narrow this residential street and serve as a valuable low-volume route for commuters.

Interim Design Strategies

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With limited funding streams, complex approval and regulatory processes, and lengthy construction timetables, cities are often challenged to deliver the results that communities demand as quickly as they would like. Interim design strategies are tools and tactics that cities can use to improve their roadways and public spaces in the near term. They include low-cost, interim materials, new public amenities, and creative partnerships with local stakeholders, which together enable faster project delivery and more flexible and responsive design.



Interim Design Strategies

Whether setting a parklet along a curb, pedestrianizing a narrow corridor, or redesigning a complex intersection, cities have the opportunity and the responsibility to make the most efficient use of valuable street space. An interim design can serve as a bridge to the community, helping to build support for a project and test its functionality before going into construction.

Moving the Curb

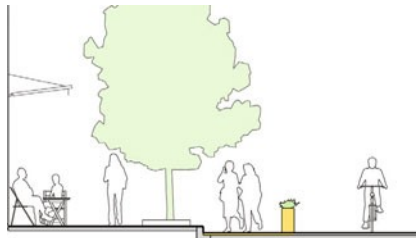
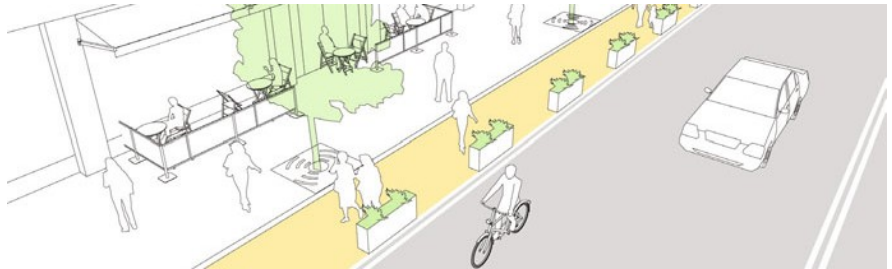
While the separation of the street and the sidewalk is generally defined through on-street parking, street furniture, and physical elements that buffer pedestrians from motorists, curbsides have the potential to host a wide variety of uses beyond parking.

On-street parking spaces or curb-side travel lanes may be converted to bus lanes or cycle tracks. Two to four parking spaces can be replaced

with a parklet or bike corral. On weekends or at lunchtime, curbsides can host food trucks or vendors that activate street life and create a destination within the street.

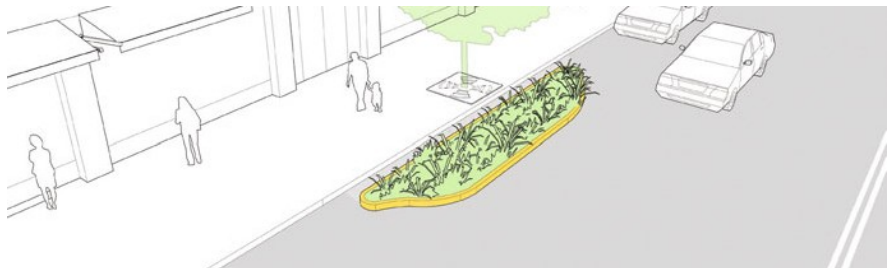
Interim Sidewalk Widening

As neighborhoods change and develop, the intensity of a street's uses may also change. Sidewalks can be expanded using interim materials, such as epoxied gravel, planter beds, and bollards, easing pedestrian congestion in advance of a full reconstruction.



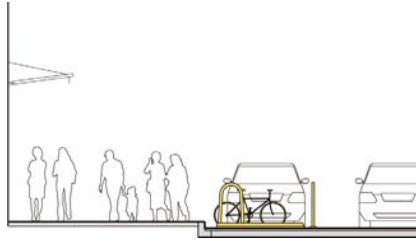
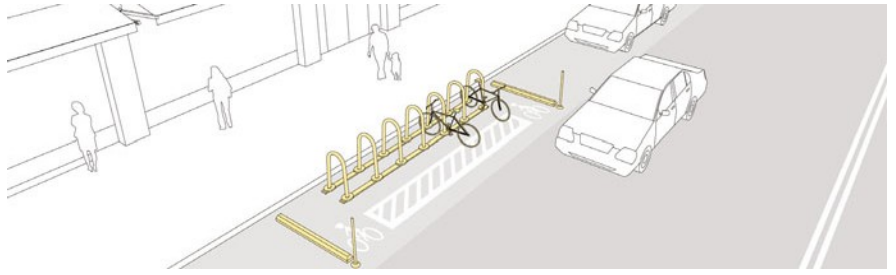
Traffic Calming

Temporary traffic calming devices may be installed using a narrow drainage channel. These offset islands help slow speeds in advance of a full reconstruction.



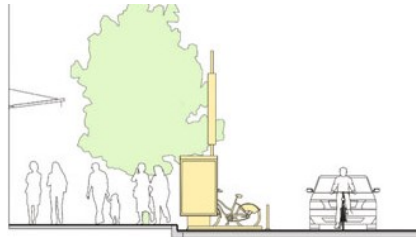
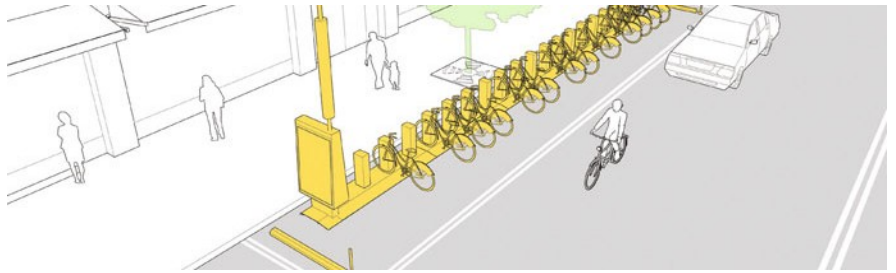
Bike Corral

Bike corrals typically replace one parking space at the request of a local business or property owner and accommodate 12–24 bikes. Corrals can be installed at corners to daylight an intersection since bicycle parking has no effect on the visibility of pedestrians to moving vehicle traffic. Bike corrals have been shown to have a positive impact on business.¹



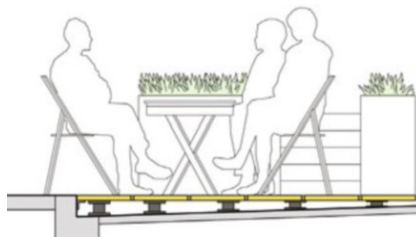
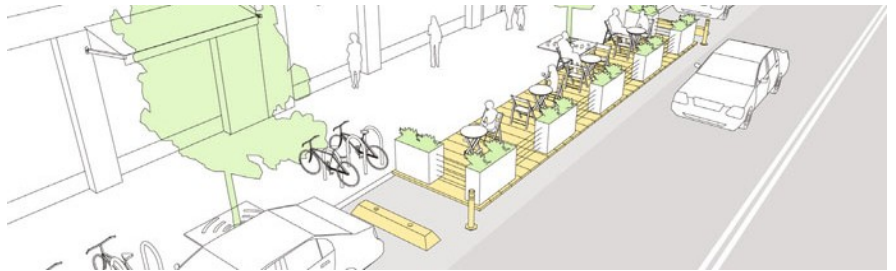
Bike Share

Bike share stations can serve as an integral part of the public transit system. Station maps and kiosks can serve as a focal point that orients tourists and visitors while drawing people to key destinations.



Parklet

Parklets are public seating platforms that replace several parking spaces. They serve as a gathering place for the community and can energize local stores and shops.



From Pilot to Permanent

The conventional project development process proceeds from plan to capital construction over a number of years, during which momentum and funding for the project may fade. From a project's conceptualization to its actual implementation, a lot can change in terms of political will, citizen involvement, and prevailing city policies. While many of these processes are designed to assess and evaluate the potential impacts of a project, small-scale, interim changes—wider sidewalks, public plazas, street seating—can deliver results to communities more quickly. Interim design strategies allow cities to assess the impacts of their intended project in real time and realize their benefits faster than typical processes allow. While a majority of these interim designs go on to become full-scale capital projects, some are altered or redesigned in the process based on how they perform in real time. This results in a better final product and saves on future expenditures and improvements that need to be made in revision.

While interim design strategies can be effective and instrumental toward realizing certain projects, they may not be appropriate at all locations or for all communities. Cities should assess how an interim design will be received by local stakeholders in order to avoid derailing a project that might have been better received in its capital phase.

While many cities have branded the interim design as a pilot or test phase for a project, others view the design as equivalent to a permanent reconstruction. The level of permanence depends on the individual project, but should always be communicated at the outset.

	CONVENTIONAL PROJECT DEVELOPMENT	PHASED /INTERIM DESIGN STRATEGY
Year 1	Concept	Concept
	Plan/Outreach	Plan/Outreach
Year 2		Interim Installation
		Impacts Analysis
Year 3	Design	Design
Year 4		
Year 5	Construction	Construction

WILLOUGHBY PLAZA, BROOKLYN

Before

A low-volume, 1-block stretch of Willoughby Street in downtown Brooklyn served as a popular corridor for pedestrians between Brooklyn's civic center and main shopping district.



Interim

This segment was closed to vehicle traffic using temporary planters, seating, and bollards in 2006.



After

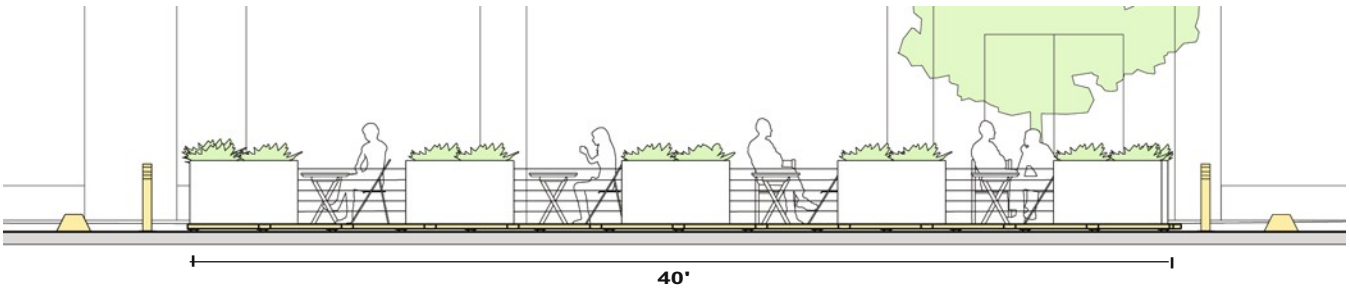
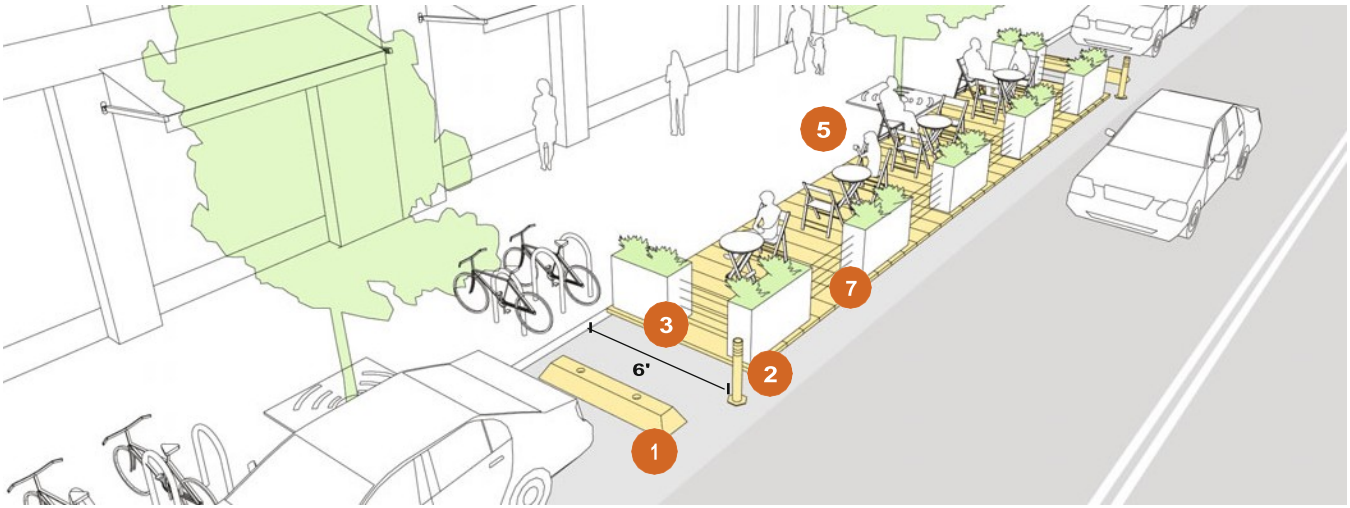
Following a full capital construction process, Willoughby Plaza was made permanent and officially opened in 2013.





Parklets

Parklets are public seating platforms that convert curbside parking spaces into vibrant community spaces. Also known as street seats or curbside seating, parklets are the product of a partnership between the city and local businesses, residents, or neighborhood associations. Most parklets have a distinctive design that incorporates seating, greenery, and/or bike racks and accommodate unmet demand for public space on thriving neighborhood retail streets or commercial areas.



APPLICATION

Parklets are typically applied where narrow or congested sidewalks prevent the installation of traditional sidewalk cafes or where local property owners or residents see a need to expand the seating capacity and public space on a given street. To obtain a parklet, property owners enter into an agreement with the city, in some cases through a citywide application process, procuring curbside seating in place of one or more parking spaces.

BENEFITS & CONSIDERATIONS

Parklets are typically administered through partnerships with adjacent businesses and/or surrounding residents. Partners maintain and program the parklet, keeping it free of trash and debris. Where no local partners are present, a parklet may be installed and managed by the city as a traditional park or public space.

Parklets can be managed through a competitive application process by a city transportation, planning, or public works agency.¹

Cities with frequent snowfall should consider the removal of parklets during the winter to prevent conflicts with plows and street cleaning vehicles.

Costs vary based on the design and size of the parklet. Design and installation costs are generally assumed by the maintenance partner. Standardized parklet designs may be made available by the city to make the program more appealing and affordable.²

While parklets are foremost intended as assets for the community, their presence has also been shown to increase revenues for adjacent businesses.³

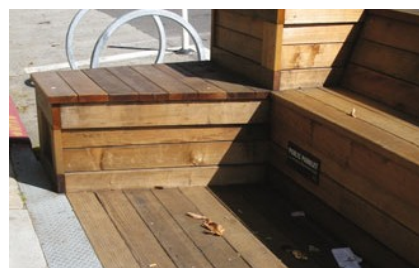
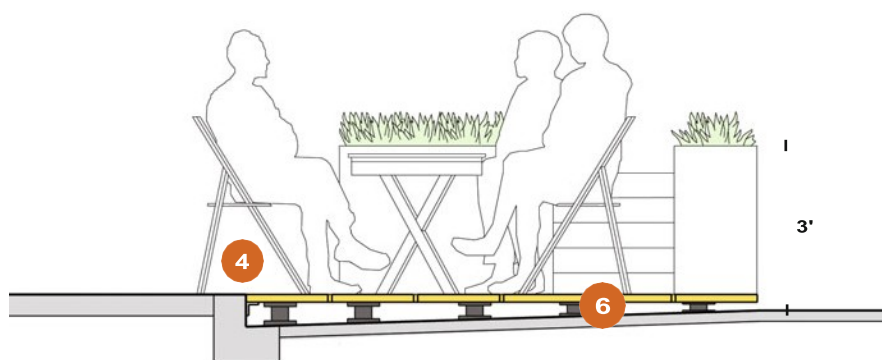
CRITICAL

1 To ensure visibility to moving traffic and parking cars, parklets must be buffered using a wheel stop at a desired distance of 4 feet from the parklet. This buffer may also serve as a space for adjacent property owners to accommodate curbside trash collection.

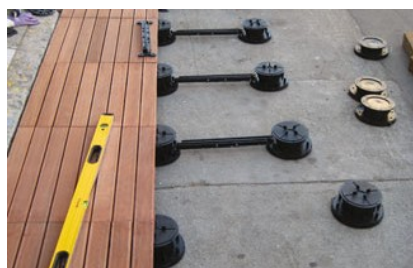
2 Parklets should have vertical elements that make them visible to traffic, such as flexible posts or bollards.



Wheel stops on either side of the parklet.



A steel transition plate ensures a flush transition from the curb to the wooden parklet surface.



Bison pedestals are a popular substructure for parklets.



LOCATION: PHILADELPHIA, PA
Before, during construction, and after—parklet on 44th Street.

3 Parklets have a desired minimum width of 6 feet (or the width of the parking lane). Parklets generally entail the conversion of one or more parallel parking spaces or 3–4 angled parking spaces, but may vary according to the site, context, and desired character of the installation. Where a parklet stretches the length of an entire curb, accessibility and sightlines must be taken into account.

The design of a parklet should not inhibit the adequate drainage of stormwater runoff. Small channels between the base and the platform facilitate drainage.

4 Parklets should have a flush transition at the sidewalk and curb to permit easy access and avoid tripping hazards.

RECOMMENDED

Parklets should avoid corners and are best placed at least one parking space away from the intersection corner. Where installation of a parklet

is under consideration for a site near an intersection, volumes of turning traffic, sightlines, visibility, and daylighting should be taken into account.

Parklets should be heavy enough to make theft impossible or unlikely. Site selection should consider the level of surveillance both during the day and at night.

5 Incorporate seating into the parklet. Seating may be integrated into the design itself or made possible with moveable tables and chairs.

6 Designs for the substructure of a parklet vary and depend on the slope of the street and overall design for the structure. The substructure must accommodate the crown of the road and provide a level surface for the parklet. “Bison pedestals” spaced under the surface and of different heights are a common application. Another method is to provide steel substructure and angled beams.⁴

Parklets should use a slip-resistant surface to minimize hazards and should be accessible to wheelchair users.

Parklet floor load-bearing weight standards vary by agency. At a minimum, design for 100 pounds per square foot.⁵

7 Include an open guardrail to define the space. Railings should be no higher than 3 feet and be capable of withstanding at least 200 feet of horizontal force.⁶

Parklet siting should avoid obstructing underground utility access and electrical transformer vaults.

OPTIONAL

The design of any individual parklet may vary according to the wishes of the primary partner or applicant. Designs may include seating, greenery, bicycle racks, or other features, but should always strive to become a focal point for the community and a welcoming public gathering place. Cities may opt to have a standard design template to reduce design and construction costs for applicants.

Bicycle parking may be incorporated into or adjacent to the parklet.

SAN FRANCISCO PARKLET PROGRAM



San Francisco's Parklet Program converts parking spots into vibrant public spaces. Parklets extend the sidewalk and provide neighborhood amenities like seating, landscaping, bike parking, and art. Through an application process that requires documented neighborhood support, the program allows the community to actively participate in the beautification and creative use of the public realm. Designs are accessible and inclusive, inviting pedestrians, bicyclists, and shoppers to linger, relax, and socialize. Each parklet has a distinct, site-specific design that reflects the neighborhood's unique character,

Process

Each year, an interagency team, led by the San Francisco Planning Department, issues requests for parklet proposals. Storeowners, community organizations, business improvement districts, residents, and nonprofit institutions may apply to sponsor a parklet. Sponsors must conduct community outreach, design the parklet, fund its construction, undertake maintenance, and supply liability insurance. Materials and designs must be temporary and removable, and sponsors must renew parklet permits annually.

Design

San Francisco's parklets generally meet the following design requirements:

- Replace 1–2 parallel, or 3 perpendicular or diagonal parking spaces.
- Be sited on streets with speed limits of 25 mph or less and slopes below 5 percent.
- Have no interference with utility access, fire hydrants, disabled parking, bus zones, or curbside drainage.
- Meet construction standards of both the San Francisco Building Code and the Americans with Disabilities Act Accessibility Guidelines.
- Include wheel stops, reflective elements at corners, and a buffered edge.
- Incorporate high-quality, durable materials.

Privately sponsored and funded, parklets represent an economical means of expanding and energizing public space. Since the program's initial 2010 launch with 6 pilot parklets, San Francisco has installed 38 parklets across the city.



Temporary Street Closures

Temporary streets closures, such as play streets, block parties, street fairs, and open streets, demonstrate the range and diversity of ways in which a city's streets may be utilized. Whether done as a precursor to a future project or as a seasonal or weekly event, temporary closures can activate the street and showcase participating businesses and communities. Depending on a street's usage and characteristics, temporary street closures can take multiple forms, ranging from an emphasis on active recreation, biking, or exercise to business activity, food, or arts.

DISCUSSION

Temporary street closures allow cities to take better advantage of their roadways, especially at off-peak hours and weekends.

Closures call attention to neighborhood businesses and destinations and increase foot traffic on designated corridors. Data collection can support public perceptions of the success of a temporary implementation and may be especially helpful toward creating a permanent publicspace.¹

When themed around active recreation and exercise, temporary street closures may be aligned with a city's larger public health goals and encourage residents to take advantage of parkways and boulevards as recreational amenities.²

Closures typically require additional trash pickup and street cleaning in the evening or the following day to ensure that local residents and businesses remain active and supportive.

CRITICAL

A removable traffic control device or barrier should be used to ensure that vehicles do not encroach on a street closure. Police enforcement is not necessary or desirable in all cases.

RECOMMENDED

Where regularly scheduled, especially if daily or weekly, a regulatory sign should be posted to indicate the closure.

Closures are most successful when programmed with events and activities throughout the day. Programs may include performances, seating, food stalls, and other activities.³



ATLANTA, GA

Street furniture, including chairs, tables, and lighting, can help to activate a closed pedestrian street.

On days of closure, loading and unloading should be permitted for local businesses in the morning and evening hours.

Naming conventions for temporary pedestrian streets should be carefully considered. Branding should be analyzed based on the intended audience and participants.



BRONX, NY

"Weekend Walks" is a 5-year-old program provided by NYC DOT and local partnering organizations. The program provides community street events throughout the city from May to October.

OPTIONAL

For certain streets, night closures may be desirable. Night closures should be more closely monitored and protected from traffic due to the potential lack of visibility for drivers. Extra lighting may be required and police enforcement is recommended at night.



NEW ORLEANS, LA

Bourbon Street closes every night, year-round.

Bicyclists may be permitted to ride through temporary street closures in certain cases. Typically, shared use by bicycles should be determined based on anticipated pedestrian traffic as well as a street's available width. Bicyclists should always be permitted to ride through "open streets" events. (See table at right.)

TYPES OF CLOSURES

Temporary street closures restrict a street to pedestrians — and in some cases bicyclists, rollerbladers, and skateboarders — at specific times of day, specific days of the week or during the year, or for certain seasons. While many streets are periodically closed to traffic for special events, temporary street

closures refer to streets with a regularly scheduled closing, such as a pedestrian street, play street, or farmers market.

Temporary street closures are often applied in the following scenarios:

Play Street

Low-volume, local streets closed for a specific portion of the afternoon and/or weekend for play and recreation, play streets are often adjacent to playgrounds, schools, or residential areas with limited park space in the vicinity.



Pedestrian Street

Pedestrian streets are typically held either on weekends or seasonally on neighborhood main streets. They are based around cultural and community programming and events, rather than commercial activity or street food.



Market

Streets adjacent to public parks, landmarks, or along key corridors that are fully or partially closed for a food fair or farmers market. Markets are often seasonal and open only during daylight hours.



Open Streets

Major boulevards or parkways closed on weekends for a specific set of hours. Open streets typically include pedestrians, bicyclists, and other recreational users, as well as limited static activities near the curbside.



LOS ANGELES'S CICLAVIA INITIATIVE



Los Angeles's CicLAvia initiative opens city streets to bicyclists, pedestrians, skateboarders, and rollerbladers, temporarily transforming the city's largest public space, its streets, into major active transportation corridors. Initially conceived by a group of volunteers in 2008, CicLAvia will soon hold its 7th annual event. Routes have ranged between 6.3 and 15 miles, with the most recent CicLAvia drawing an estimated crowd of 150,000.

Public-Private-Nonprofit Partnership

Drawing inspiration from *ciclovias* in Latin America, a group of volunteers began conceptualizing a Los Angeles version of the event in 2008. After incorporating as a nonprofit in 2009, CicLAvia staff visited neighborhood council meetings to build support and demonstrate community interest. With an energized constituency behind them, CicLAvia teamed up with the Mayor's Office and the Los Angeles Department of Transportation (LADOT) to plan logistics for the event. The resulting public-private-nonprofit partnership benefits all stakeholders. The nonprofit sets the overall vision for CicLAvia, holds liability insurance, and fundraises for the event. Funding stems from

a mix of government grants, foundation dollars, and private sponsorships. A private production company manages logistics, graphic design, and staffs the events. The LADOT and the Mayor's Office coordinate traffic management, permits, and policy.

Design

Route selection for the CicLAvias looks at population density, transit connections, commercial corridors, and destinations, such as parks, plazas, or notable buildings. Planners typically avoid streets with steep grades and work with city staff to patch potholes and provide a smooth surface along the designated route. Each CicLAvia tries to use a new route to showcase different neighborhoods in Los Angeles, though staff have also found a benefit to repeating routes, especially as they build relationships with businesses and test more creative ways of engaging with participants.

CicLAvias remain permeable to motorists at designated crossing points, minimizing disruption to the transportation network and reducing the potential for road closures that isolate one half of the city from the other. LADOT's Special Traffic Operations Division, which handles events, produces a traffic management plan for each CicLAvia, detailing intersection modifications, roundabouts, and other temporary



infrastructure designs that will manage the traffic flow of participants and remove conflict points. CicLAvia staff are responsible for implementing the plan from LADOT.

Permits

Using the city's *Street Closure Provisions and Application Procedures* for guidance, CicLAvia applies for permits before each event. Through a conditional exception, CicLAvia does not need 51% approval from neighbors to close a street, but instead must post an informational flyer to every business and residence along the route in advance of a CicLAvia.

Community Engagement

In advance of every CicLAvia event staff canvas the route to inform business owners and residents of the upcoming street closure, including what to expect and how to participate. LADOT policy requires parked cars to be moved from the route for public safety reasons. Prior to each event, CicLAvia staff alert motorists to the parking restriction to avoid cars being towed. Los Angeles Bike Coalition volunteers assist with this large-scale community engagement effort.



Interim Public Plazas

Interim public plazas transform underutilized areas of roadway into public spaces for surrounding residents and businesses. Using low-cost materials, such as epoxied gravel, movable planters, and flexible seating, interim public plazas reconfigure and revitalize intersections that might otherwise be unsafe or underutilized.

Like parklets, interim public plazas are the result of a successful partnership between the city and a neighborhood group or business association. Partners maintain, oversee, and program the space. While many public plazas proceed from an interim phase to final reconstruction within 3–5 years, the intermediate application allows the community to build support for and benefit from the public space in the near term, before major capital construction.

APPLICATION

Interim public plazas are most commonly applied under the following circumstances:

- A dedicated partner, typically a business or neighborhood association, or a community with unmet demand for public space, wants to activate, program, and take ownership of an underutilized road space and can maintain it throughout the year.
- An underutilized street segment has low vehicle traffic, pedestrian demand is unmet, and foot traffic is overflowing into the roadway.
- Safety or operational issues with existing traffic call for a temporary reconfiguration of the intersection.
- Funds have been allocated to the permanent installation of a plaza, but capital implementation remains several years away.



SAN FRANCISCO, CA

BENEFITS & CONSIDERATIONS

Public plazas have the potential to:

- Make intersections safer, more compact, and easier to cross for pedestrians.
- Slow traffic speeds and mitigate potentially dangerous intersection conflicts.
- Activate a public place by reclaiming space unused or underused by motorists.
- Energize surrounding streets and public spaces, creating foot traffic that can boost business and invigorate street life in a neighborhood.¹

CRITICAL

1 Parking shall not be allowed or permitted within the public plaza. Parking may be maintained adjacent or parallel to the plaza, but should be designed along the footprint of the future capital implementation.

2 Interim public plazas shall be constructed with ADA-compliant tactile warning strips at the crosswalks. Extra attention should be paid to how sight-impaired individuals will navigate these spaces.

Stripe a double white line along the edge of the plaza to legally prohibit vehicles from entering the space.

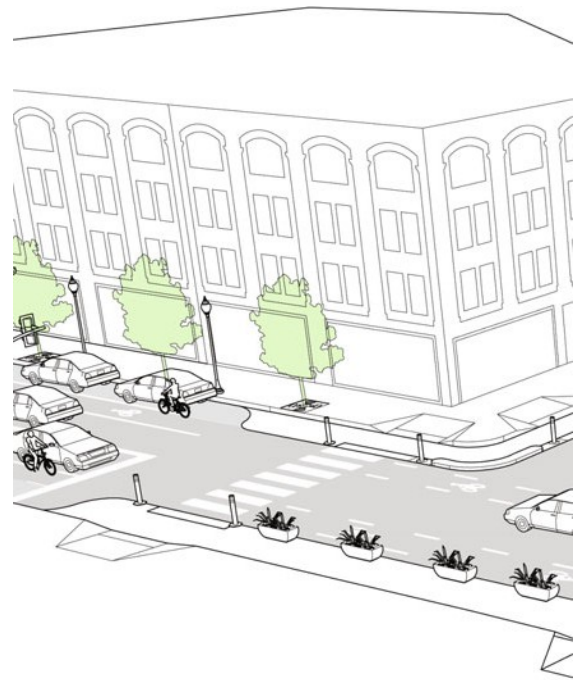
RECOMMENDED

Plazas should be defined using low-cost, durable materials, such as epoxied gravel, paint, and thermoplastic.² Climate factors into the selection of specific materials and their long-term durability.



NEW YORK, NY

Coordinated designs using flexible chairs, tables, and planters define interim public spaces throughout New York City's five boroughs.

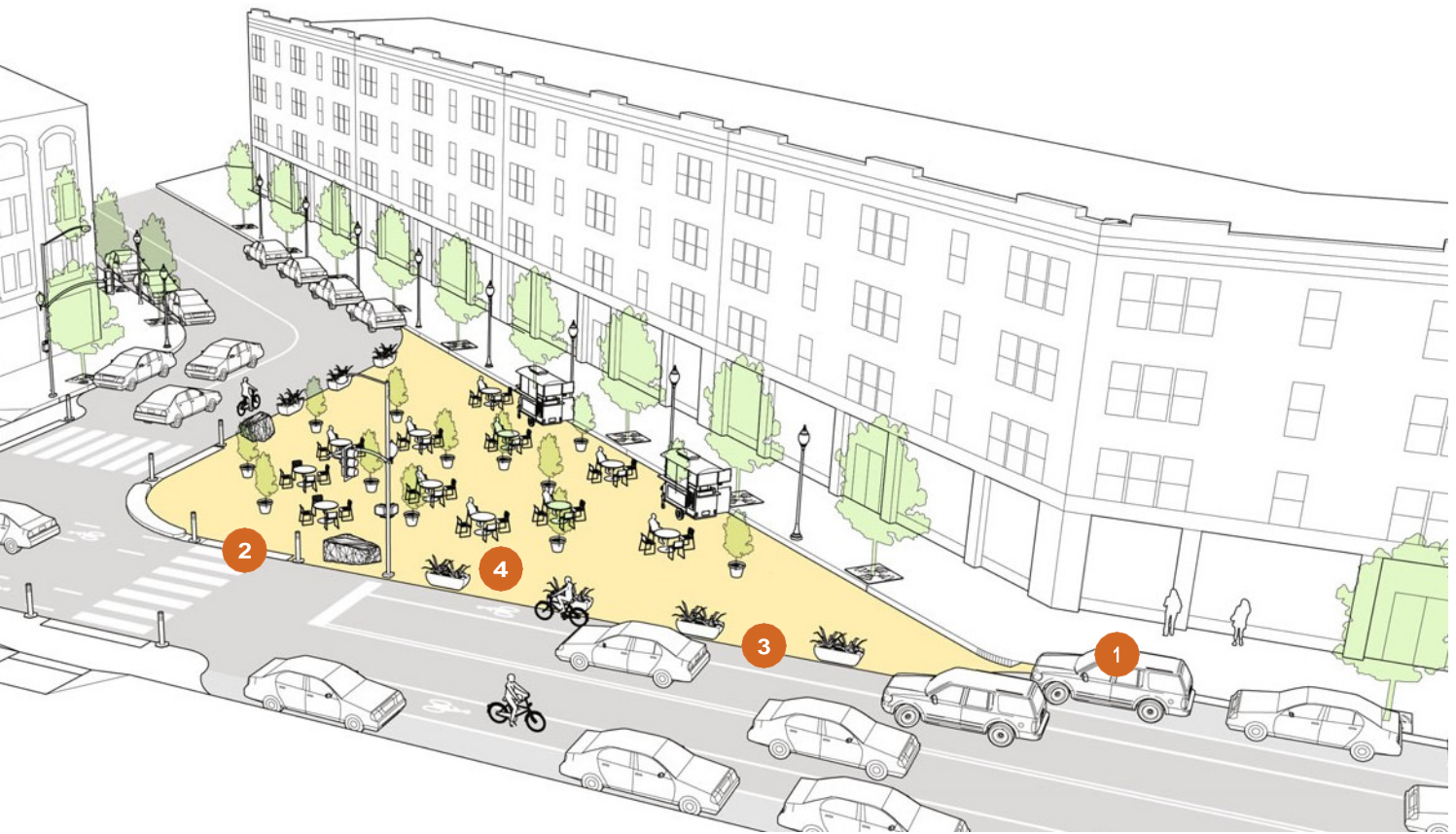


3 Plazas should be designed with a strong edge and defined using a combination of striping, bollards, and larger fixed objects, such as granite rocks and/or planters.

Prior to implementation of a public plaza, cities are advised to post an informational placard advertising the plaza to ensure that local stakeholders are aware of the installation.



Tables and seating may be movable to permit flexible use of the space and to limit costs. Whether or not to secure seating at night should be determined by the maintenance partner.³



Corners and other areas of a plaza subject to encroachment by errant or turning vehicles should be reinforced using heavy objects and bollards that alert drivers of the new curb line.

Adequate lighting should be provided at plazas at all times of day.

OPTIONAL

4 Heavy planters, granite blocks, moveable seating, and other street furniture elements may be incorporated into the interim design.



BROOKLYN, NY

Granite blocks help define the edge of a new plaza.



LOS ANGELES, CA

Bicycle parking may be installed in coordination with the installation of a temporary plaza.

Art installations, performances, vendors, and markets can improve the quality and identification of a public plaza, while engaging local artists, communities, and business owners.

Plazas should be designed to accommodate freight loading and unloading where access to the curb is required at early morning hours for adjacent businesses.

Drainage should be considered in the design of the pilot plaza. Sites should have minimal cross slope or be designed using edge treatments that mitigate the overall slope.

NEW YORK CITY PLAZA PROGRAM



The New York City Department of Transportation's (NYC DOT) Plaza Program converts underutilized road space into neighborhood amenities through partnerships with local nonprofit organizations and communities. The program, launched in 2008, is currently in its sixth round of applications and has realized 22 new public spaces for New Yorkers.

Community Partnerships

The Plaza Program accepts proposals from community-based nonprofit organizations to create neighborhood plazas through an annual competitive application process. NYC DOT funds plaza design and construction and incorporates community input through public visioning workshops. The nonprofit partner is responsible for conducting community outreach, participating in design meetings, formulating a funding plan, providing insurance for the plaza, undertaking maintenance, and programming activities and events to ensure that the plaza becomes a vibrant neighborhood destination. Locally known and respected neighborhood nonprofits bring on-the-ground insight and

expertise and help NYC DOT secure approval from the local community board, an essential milestone in realizing any plaza project.

Design

The Plaza Program generally involves capital reconstruction, though NYC DOT now awards more funding for projects that initially use interim materials, such as moveable tables, planters, and umbrellas. Interim materials give plazas a degree of flexibility—assuaging opponents, streamlining the design and construction process, using funding more efficiently, and allowing community members to enjoy the plaza's benefits sooner. Once interim plazas are in place, local support for permanent construction tends to grow. Whether permanent or temporary, using standard materials simplifies work for NYC DOT operations crews.

Funding

Dedicated, long-term funding for the Plaza Program was secured through PlaNYC 2030, New York City's long-range plan released in 2007. PlaNYC set a goal to ensure all New Yorkers live within a ten-minute walk of a park, and the Plaza Program helps fulfill that goal.