

## TOOLBOX SECTION

# 9

### Special Pedestrian Districts and Site Design for Pedestrians







People like to live and vacation in areas where they can walk, with readily accessible sidewalks, paths, trails, and other pedestrian facilities.



# SPECIAL PEDESTRIAN DISTRICTS AND SITE DESIGN FOR PEDESTRIANS

## The Value of Pedestrian-Friendly Development

Pedestrian-friendly development encourages people to walk more. When people walk more, they are more physically fit and have less health problems. Walking more and driving less also reduces greenhouse gas emissions and results in other environmental benefits.

Good pedestrian design also brings economic benefits. Several case studies have shown that higher levels of retail activity occur in shopping areas and tourism districts that have been designed to be pedestrian-friendly. Walkable places attract consumers. Research also has shown that pedestrian-friendly development increases real estate values. People like to live and vacation in areas where they can walk, with

readily accessible sidewalks, paths, trails and other pedestrian facilities. As such, housing and vacation destinations in walkable areas are in higher demand and of higher value.

Generous sidewalks, pedestrian corridors, plazas, curb extensions, accessibility features, pedestrian signals, marked crosswalks, special paving, street trees and landscaping, furnishings, public art, pedestrian scale lighting, and wayfinding are frequent elements of pedestrian-friendly developments.



Street trees, landscaping, and furnishings are frequent elements of pedestrian-friendly districts and areas.

## IN THIS SECTION

- *THE VALUE OF PEDESTRIAN-FRIENDLY DEVELOPMENT*
- *PLANNING FOR ALL TRANSPORTATION MODES AS PART OF SITE DEVELOPMENT*
- *PEDESTRIAN-FRIENDLY SITE DESIGN*
- *BICYCLE-FRIENDLY SITE DESIGN*
- *TRANSIT-FRIENDLY SITE DESIGN*
- *THE BENEFITS OF MIXED USE DEVELOPMENT*
- *SPECIAL PEDESTRIAN DISTRICTS*
- *SITES AND CORRIDORS USED EXCLUSIVELY BY PEDESTRIANS*
- *SHARED STREETS, FESTIVAL STREETS, AND PLAY STREETS*
- *OTHER RESOURCES*



*Pedestrian oriented lighting, special paving, and vegetation create a pleasant pedestrian environment.*

*Private investment in development can serve an important role in creating vibrant, walkable places.*



## Planning for All Transportation Modes as Part of Site Development

The vitality of developments is strengthened when adjacent streets and on-site facilities serve a mix of transportation modes (pedestrians, bicyclists, transit, and motor vehicles). A well-designed site addresses the needs of all these modes of transportation. During the early planning stages of any development, the project team should consider how to cohesively address the needs of all transportation modes. This includes identifying the need for on-site networks and facilities, as well as the need for connections to surrounding streets and transportation networks.

Analyzing and addressing the needs of all modes, including pedestrians, as part of project planning rather than later in the design process, or after construction (as an afterthought) will save costs in the long-run by minimizing the need to add sidewalks and other facilities later. As the planning process proceeds into design and construction, it is important that the needs of all modes continue to be considered and addressed.

Public/private partnerships in creating pedestrian-friendly development can be “win-win” opportunities. Private investment in development can serve an important role in creating vibrant, walkable places with active street frontages, sidewalks, and a variety of pedestrian amenities and public spaces. Public investment in pedestrian-friendly and complete street improvements can increase real estate values, attract new customers and tenants, and catalyze redevelopment. Public and private partnerships and cooperation can maximize the value of these investments while at the same time enhancing overall community livability and economic vitality. For more information related to planning for pedestrians, refer to Toolbox Section 1—Thinking About Pedestrians from the Start.

## Pedestrian-Friendly Site Design

Because all trips begin and end as pedestrian trips, providing a well-designed pedestrian network on development sites (shopping centers, mixed use areas, campuses, resorts, residential sites, office complexes, etc.) is crucial.



Examples of pedestrian-friendly site design approaches that can be integrated into development (and potentially incentivized or required through local code provisions) include:

- Working with architects and site designers to establish a strong, vibrant building edge that creates a comfortable and attractive space for pedestrians;
- Allowing more flexibility in parking options, such as shared parking or the use of on-street parking as part of the required parking quantity;
- Encouraging mixed-use development; and
- Providing public pedestrian space at the ground level, including public pass-through corridors through the development of site and forecourt plazas open to public use.

Circulation systems for all modes of transportation need to be integrated into site design. Special design considerations are required where these systems intersect, with pedestrian safety being the highest priority, as a best practice. As much as possible, pedestrian travel ways should be separated horizontally and/or vertically (via curb-height walkways) from vehicle travel ways.

The following simple approach can help designers envision a good pedestrian environment when reviewing a site design for the first time. Designers and developers should consider the point-of-view of a pedestrian walking through the site and ask themselves several questions:

- Are there continuous pedestrian routes throughout the site?
- How direct are these routes? Is there direct pedestrian access to and from the site via adjacent sidewalks?

- Do walkways keep pedestrians out of the middle of parking lots?
- How easy is access between the site and nearby transit stops?

By considering these and other questions, the needs of pedestrians will be addressed as a basic premise of the overall site design process. See the checklist of pedestrian-friendly site design solutions on the next page.

Exhibit 9.1 shows a site development with many of the elements of good design for pedestrians.



*Providing a well-designed pedestrian network on development sites is crucial. (Adapted from an illustration by the Miller Hull Partnership)*



# PEDESTRIAN-FRIENDLY SITE DESIGN CHECKLIST

- ✓ *Delineated walkways through parking lots*
- ✓ *Connections to neighborhoods and surrounding areas*
- ✓ *Easy to identify building entrances*
- ✓ *Building frontages located along streets rather than parking lots*
- ✓ *Convenient and safe access to transit and adjacent sidewalks*
- ✓ *Alignment of walkways for convenience and reduced travel distances*
- ✓ *Accessible routes of travel to and from the site, as well as throughout the site*
- ✓ *Absence of barriers to pedestrian travel (e.g. walls, ditches, landscaping, or roads without safe crossings)*
- ✓ *Pedestrian-friendly architectural design (awnings, active frontages along streets, visible and well-lit building entrances, etc.)*

**EXHIBIT 9.1 A Well Designed Site for Pedestrians**





## Site Elements

How various site elements are designed can greatly affect pedestrian use of the site. Some key site elements include:

- Site Edges
- Building Location and Design
- Site Circulation
- Walkways and Accessible Routes
- Site Access and Driveway Design
- Ramps, Stairways, and Steps
- Landscape and Furnishings
- Public Art

These elements should be designed to enhance pedestrian use and create an overall pedestrian-friendly site, whether a residential neighborhood, mixed use development, shopping center, tourist destination, or business center. Pedestrian design guidance related to each of these elements is provided below.

### SITES EDGES

When designing pedestrian facilities, it is important

to consider what defines the edges of these areas. Defining elements may include buildings, street trees, planter strips, and sidewalks. Building design should respond appropriately to existing or planned pedestrian uses and include architectural treatments that enliven the pedestrian space. Blank walls are uninviting and uninteresting to walk next to. The most successful pedestrian designs provide edges that are visually engaging.

It is also important to buffer the sight and sound of traffic from a pedestrian space. Street trees, bollards, berms, and low walls can create a buffer without compromising good security surveillance into the space. The splash and gurgling of water features can help mask the sound of traffic.

### BUILDING LOCATION AND DESIGN

Building location and architecture can encourage pedestrian access by providing an attractive and welcoming environment.

- Locate buildings directly adjacent to the sidewalk along the street right-of-way. This allows pedestrians to access the buildings directly from the street, encouraging a friendly street atmosphere, and avoids



*Mural and landscaping create an attractive façade along a large commercial building.*





*Lively building facades with obvious entries promote a friendly environment for pedestrians, as shown in this Waikiki example.*

*This pedestrian crossing is well positioned to provide access to a shopping area at this Honolulu location.*



forcing pedestrians to cross parking lots to get to building entrances.

- Lay out buildings and other site elements in configurations that define spaces for people to walk and gather around the site. Create opportunities for pedestrian gathering spaces, plazas, and pocket parks (see Exhibit 9.2).
- Encourage building design that reflects the character of the surrounding neighborhood or district and responds to the preferences of the community.
- Design building walls and finishes to pedestrian scale, especially on the sides of the building that face streets, sidewalks, and plazas. Architectural elements such as windows, balconies, and entries should be encouraged. Blank building facades that are uninviting should be avoided.
- In some cases, such as with large commercial and retail buildings (big box), windows may not be desirable along the façade. Murals, artwork, architectural details, and/or landscaping can be used to dress up the façade to avoid blank walls along the pedestrian space (see photo example on previous page).
- Use building layout, overhangs, awnings, or other features to provide shade and weather protection.
- Soften hard surfaces with color, texture, landscaping (climbing vines), and other techniques, and bring human scale to building frontages.
- Include wide storefront walkways to welcome pedestrians to businesses and buildings.

For more information related to sidewalk design, including dimensional guidelines, suggested surfacing materials, and other treatments, refer to Toolbox Section 2—Pedestrian-Friendly Streets and Toolbox Section 4—Sidewalks and Walkways.

### SITE CIRCULATION FOR PEDESTRIANS

One of the biggest concerns for pedestrians in site design is the potential for conflicts with motor vehicles. The following design strategies can minimize conflicts and help clarify pedestrian circulation.

- Clearly define pedestrian access ways. Striping, delineation of walking zones with curbs, landscaping, centralized walkway



**EXHIBIT 9.2** *A pedestrian plaza can be a lively social and civic space.*



**EXHIBIT 9.3** *Building entries should be easily accessible from the street.*



medians and islands, and textured paving are all good ways to define walking spaces.

- Illuminate pedestrian walking areas through parking lots with pedestrian scale lighting if possible.
- Provide adequate drainage to avoid puddles and runoff areas across pedestrian walking routes.
- Provide separate pedestrian access to parking garages and structures.
- Provide direct access to building entrances from the street and sidewalk. Exhibit 9.3 illustrates a building entrance directly accessible from the street.
- Design parking lots so they can be shared by more than one building on the site or by buildings on neighboring sites. In Exhibit 9.4, three buildings share a single parking area.
- Provide one-way traffic flow through parking lots where appropriate to minimize conflicts with automobiles.
- Minimize pedestrian crossings in vehicle circulation zones.

- Use raised crossings, speed humps, and speed tables to discourage high traffic speeds in parking lots and on drive aisles and vehicle circulation areas.
- Limit parking in certain areas as a strategy to increase pedestrian trips and transit use, and decrease motor vehicle use.
- Avoid locating pedestrian walking areas near truck and freight delivery zones and trash enclosures. Trucks backing up without being able to see pedestrians is a common cause of crashes.
- Provide well delineated and marked drop off and pick up zones for pedestrians that are separated from the flow of vehicle traffic. These areas should be designated as no parking zones.
- Locate transit stops near the site and close to important destinations within it.

### **WALKWAYS AND ACCESSIBLE ROUTES**

Layout of walkways and paths as part of site design is important for making the site efficient, accessible, comfortable, and safe for pedestrian travel. Walkways and paths should generally be





Farmers market in Downtown Honolulu



**EXHIBIT 9.4** *A shared parking lot conserves space and creates a more pedestrian-friendly environment.*



aligned along the most direct routes because pedestrians will walk along routes that are the most convenient and lead directly to their destinations. Paths can also be created to follow existing or anticipated "desire" lines. Meandering walkways should be avoided.

Americans with Disabilities Act (ADA) accessible design standards require all sites to provide an accessible route of travel between accessible site elements such as parking areas, buildings, transit stops, perimeter sidewalks, and other facilities. An accessible route is a clear level walkway that provides access for all pedestrians, including people with disabilities. Specific design requirements related to accessible routes of travel are provided in Toolbox Section 3—Accessibility.

Providing pedestrian connections to adjacent parcels, as well as public lands can be important too. Developers should work with adjacent landowners and public agencies to foster connectivity between their parcels. For example, it can be advantageous to strengthen connections between two commercial sites, between a commercial site and a residential site, and between mixed-use areas and public spaces such as waterfronts.



Walkway design treatments that can help to improve conditions for pedestrians include the following:

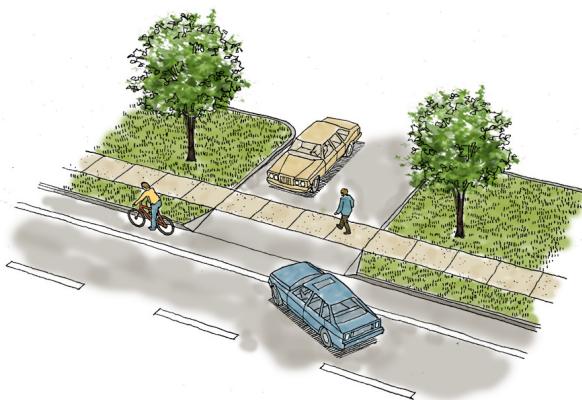
- Covered walkways and shelters to increase pedestrian comfort and provide protection from the elements;
- Well illuminated walkways and corridors to increase pedestrian security; and
- Raised walkways through parking areas to more clearly define the pedestrian travel way. (Note: curb cuts must be provided if walkways are raised.)

#### SITE ACCESS AND DRIVEWAY DESIGN

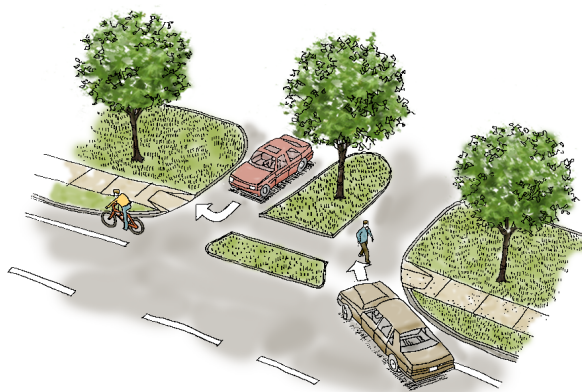
Access management and driveway design can contribute to pedestrian mobility and safety. Access management suggestions include the following:

- Limit the quantity and frequency of driveway access points and entrances to sites from streets to minimize interruption of pedestrian travel on adjacent sidewalks and walkways.
- Design sites so that adjacent properties can share access points and parking where possible.

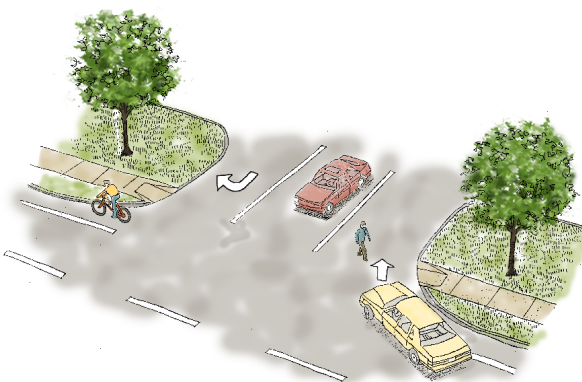
#### EXHIBIT 9.5 Site Driveway Design



**Most Desirable:** This design provides a delineated walkway across a narrowed driveway neck (with a conventional driveway apron). The pedestrian travel way is clear to the driver. The crossing distance is minimized, and the walkway stays at a constant grade.



**Acceptable:** This design is suggested for commercial driveways when it is not feasible to provide a conventional driveway apron design. The design still treats the driveway like a street intersection, but it limits the driveway width to one lane in each direction and provides a refuge island for crossing pedestrians. Striping the pedestrian travel way would improve this design.



**Not Recommended:** A very wide driveway with no refuge for pedestrians and undelineated crossing area. The driveway resembles a street intersection, which encourages higher speed turns and discourages stopping for pedestrians since their right-of-way is not clearly delineated. The movement of the vehicle clearly takes priority over crossing pedestrians.

- Separate pedestrian and vehicle access to and on the site to minimize conflicts.
- Design emergency vehicle access to allow quick access and minimize conflict with pedestrians.

Driveways can be designed or retrofitted so that they are easier for pedestrians to cross. Narrow driveways shorten the crossing distance, decreasing the likelihood of a conflict with a motor vehicle. The provision of clear sight lines between the pedestrian and the motorist pulling out of or into the driveway is very important. When selecting an appropriate driveway design, consider the type of facility and roadway classification, while also keeping in mind the best practices for pedestrians.

Driveways that provide access to businesses, offices, or other commercial buildings can be built as conventional driveways or with designs that resemble street intersections (with right-in/right-out access control). For pedestrian safety and comfort, the conventional driveway design is more desirable, because motorists are forced to slow down when turning into the driveway, and the pedestrian right-of-way is more clearly

established. (This design is also safer for bicyclists: they also have less distance to cross.) Exhibit 9.5 illustrates three different driveway designs.

Sidewalks that cross driveways and alleys can be problematic if sight distance is limited by adjacent buildings, landscaping, or other elements. Drivers pulling into or out of the driveways are concentrating on the flow of vehicular traffic and may not notice pedestrians. Several measures can be applied to improve pedestrian visibility and make these crossings easier for pedestrians. These are illustrated in Exhibit 9.6 and include the following.

- Warning signs for pedestrians
- Stop and warning signs for drivers
- Visual and/or auditory warning beacons
- Mirrors placed in strategic locations to see around corners into alleys or parking garage driveways
- Unit pavers or colored pavement to delineate area

Wide planting buffers between the sidewalk and street create advantages for pedestrians at

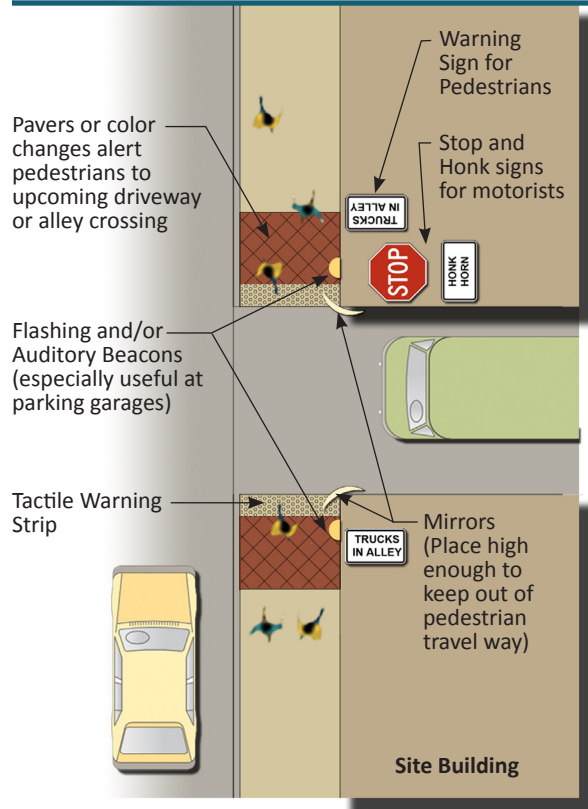


*Successful pedestrian environments provide furnishings and create attractive settings for pedestrians to move through, gather, rest, socialize, and orient themselves.*





**EXHIBIT 9.6 Pedestrian Treatments at Alleyways**



If alleyways are blocked by buildings, special treatments should be used to increase pedestrian safety and comfort.

driveway crossings. These benefits are shown in Exhibit 9.7.

### RAMPS, STAIRWAYS, AND STEPS

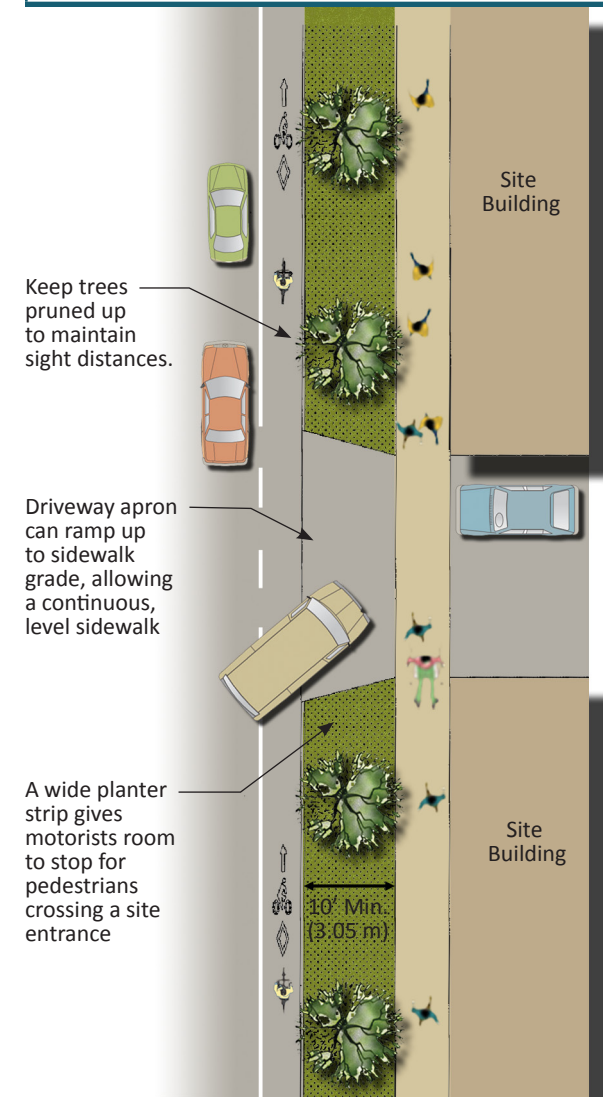
Stairways and steps should be avoided wherever possible. Instead, the use of universal design that avoids grade differences in pedestrian areas is preferred. Accessible ramps are preferred over stairs to address unavoidable grade changes, and ADA requires that all publicly-accessible buildings have accessible entrances. If steps or stairways are proposed in site designs, basic guidelines for stair and landing dimensions, step dimensions, tread-to-riser ratio, and tread nosing design should be followed. These are shown in Exhibit 9.8. According to *Time-saver Standards for Landscape Architecture*, the minimum width of public stairways should be 5 ft (1.5 m), and the minimum width for private stairways should be 3.5 ft (1.1 m).

More information about ramp design is provided in Toolbox Section 3—Accessibility.

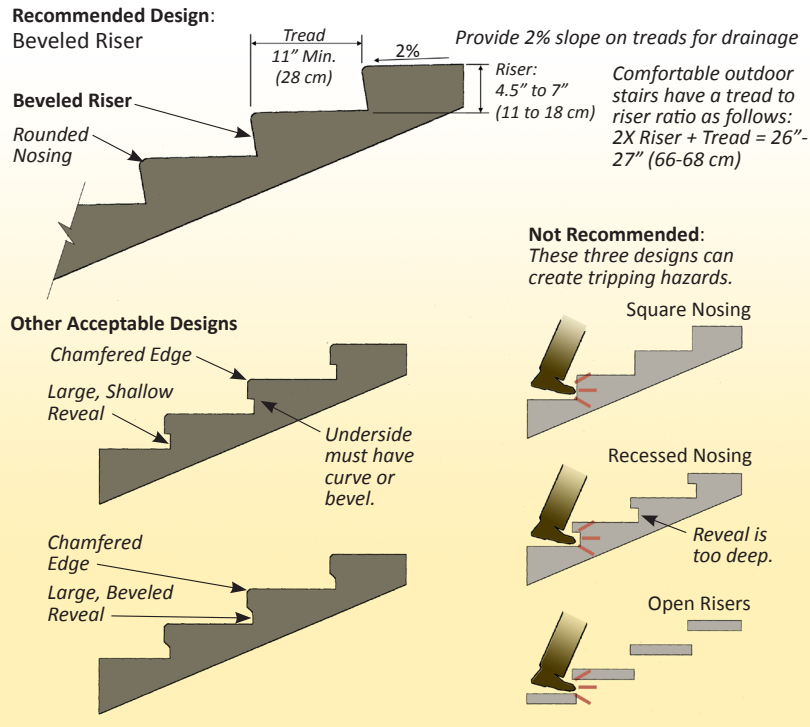
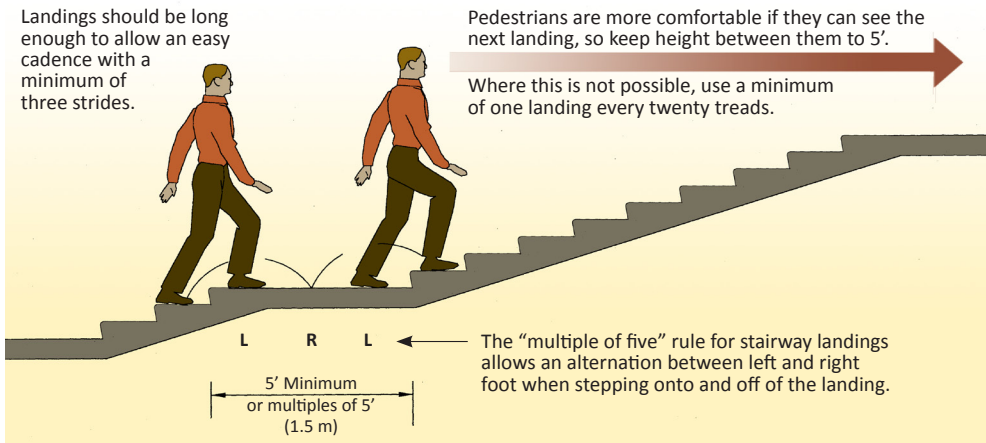
### LANDSCAPING AND FURNISHINGS

Successful pedestrian environments provide furnishings and create attractive settings for

**EXHIBIT 9.7 Wide planter strips create numerous benefits for pedestrians at site entrances.**



## EXHIBIT 9.8 Stair Design



pedestrians to move through, gather, rest, socialize, and orient themselves. Refer to the *HDOT Sustainable Landscape Master Plan* (to be released in the future) for landscaping standards. Elements that contribute to the success of pedestrian sites include the following.

- Plazas, displays, and exhibits that draw pedestrians to the building
- Benches or seating areas outdoors or in building alcoves, to allow pedestrians to stop and rest
- Pergolas and tables with umbrellas to provide shade
- Displays, signs, and retail features to attract pedestrians
- Water features that mask noise (such as traffic) and provide comfort and enjoyment
- Trees with heights and forms complementary to human scale, with upward branching habits along walking areas, and with the capability to provide shade and shelter; tree species with non-aggressive roots should be chosen to avoid buckling of adjacent pavement





Public art can be whimsical and unexpected. (Zach Everson)

The Mana Nalu Mural in Honolulu. Murals add drama to public spaces and celebrate culture and history. ([www.illusion-art.com/John Pugh](http://www.illusion-art.com/John-Pugh))



- Perimeter landscaping with defined edges to reduce the impact of parked vehicles and enhance the streetscape
- Shrubs and ground covers that don't block walkways or interfere with visibility and security
- Strategically located trash receptacles and cigarette ash cans that help keep an area clean and attractive

- Public artwork to create interest in a place as a destination (see this page)

While furnishings are good for pedestrian environments, they should not protrude into the pathway of pedestrians.

## PUBLIC ART

Public art encourages a sense a place, provides a focal point in public spaces, and can create a memorable experience for pedestrians. It can be an integral component of pedestrian site design, whether public or private. Many street furnishings can be designed as public art elements or with integrated art features. Examples include bus shelters, bike racks, bike lockers, railings, banners, and benches. These features can do double duty, providing their functional value and offering aesthetic enjoyment. Public art can also include stand-alone sculpture, bas-relief images on architectural elements, murals, and other pieces inspired by the artist's imagination, and limited only by space, budget, and jurisdictional approval. Art also can be integrated into private developments, serving many of the same purposes it does in the public domain.



Limbed-up street trees provide generous shade and a valuable connection to nature in urban areas.



**Traditional Furnishings and Treatments**



**Black Metal Railing**



**Colored Metal Bench and Trash Receptacle**



**Traditional Bollard**

**Aluminum Bike Box**



**Loop Bike Rack**

**Scored Concrete**

**Furnishings and Treatments as Public Art**



**Twig Railing**



**Attractive Cut-out Designs and Stamps**



**Large Round Bollards**

**Decorated Bike Box and Mural**



**Potato Masher Bike Rack**

**Playful Bronze Inlays in Sidewalk**

**Retrofitting Existing Developments**

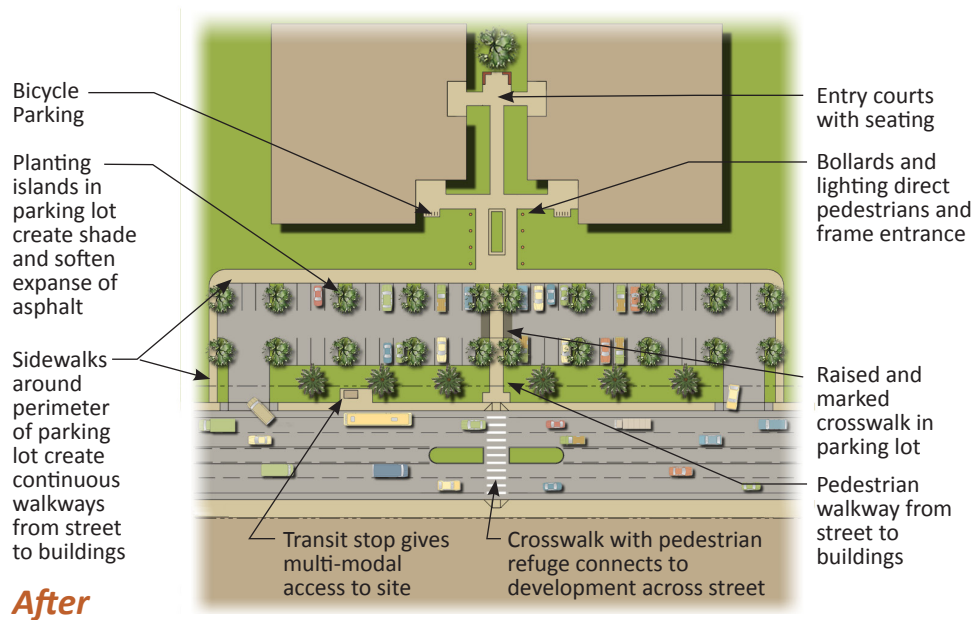
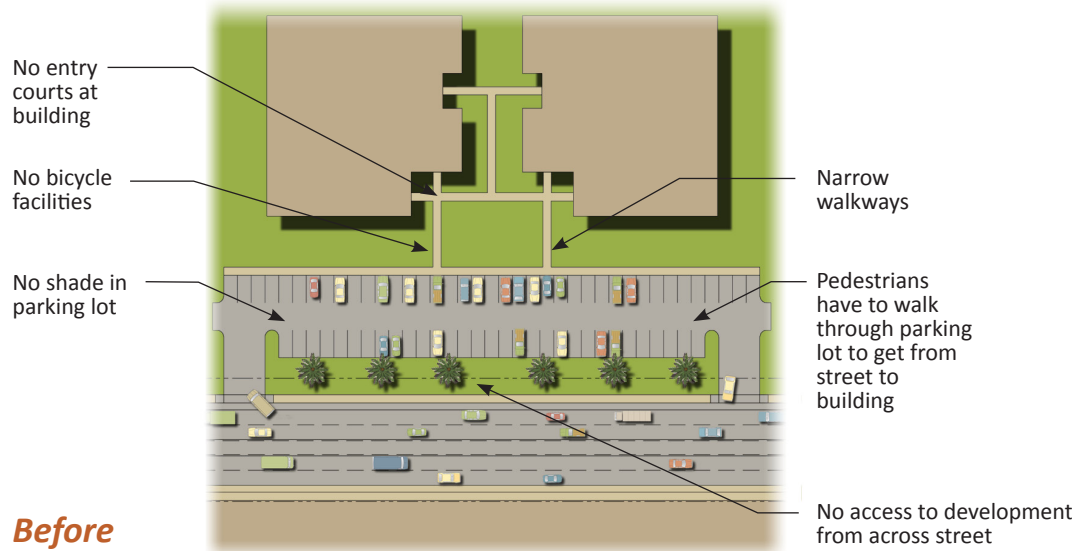
Even developments that weren't initially designed with good pedestrian accessibility and connectivity can be retrofitted and improved. Often, just a few minor, low cost improvements can go a long way in improving pedestrian safety and mobility and attracting more pedestrians. This may include the addition of pedestrian walkways in areas where there are none, sidewalk widening to accommodate more pedestrians, delineated walking areas through parking lots, sprucing up a streetscape, or adding pedestrian-friendly features along a building frontage (awnings, benches, public art, etc.) Refer to Exhibits 9.9 and 9.10.

**Suburban Neighborhoods and Subdivisions**

The places where people live—residential neighborhoods and developments—also need to be pedestrian-friendly. Low-density single family developments and subdivisions that lack sidewalks and have cul-de-sac streets (common in many suburban areas), can be challenging places for pedestrians. New urbanism and neo-traditional neighborhood designs with higher connectivity offer a better alternative to the suburban street



**EXHIBIT 9.10** Existing Developments Retrofitted to Create a Better Pedestrian Environment



configurations developed in mid to late 1900s. One important characteristic of the new urbanist neighborhoods is that the garage entrances face the alleyways, resulting in no driveway curb cuts along the primary streets, resulting in a more pedestrian-friendly environment. New urban and neo-traditional residential developments are characterized by a mix of housing options and land uses, a well connected multimodal street network or grid system, narrower streets, and connections to transit.

In existing suburban areas where cul-de-sacs or street dead ends limit pedestrian connectivity, path cut-throughs and linkages can be provided. Many suburban neighborhoods across America are also adding new sidewalks and paths. Retrofitting neighborhoods with pedestrian facilities enhances residents' health and quality of life. Exhibit 9.11 on page 9-17 compares a cul-de-sac layout with a neo-traditional neighborhood design. Yellow lines show where paths can be provided to improve connectivity in the cul-de-sac neighborhood.

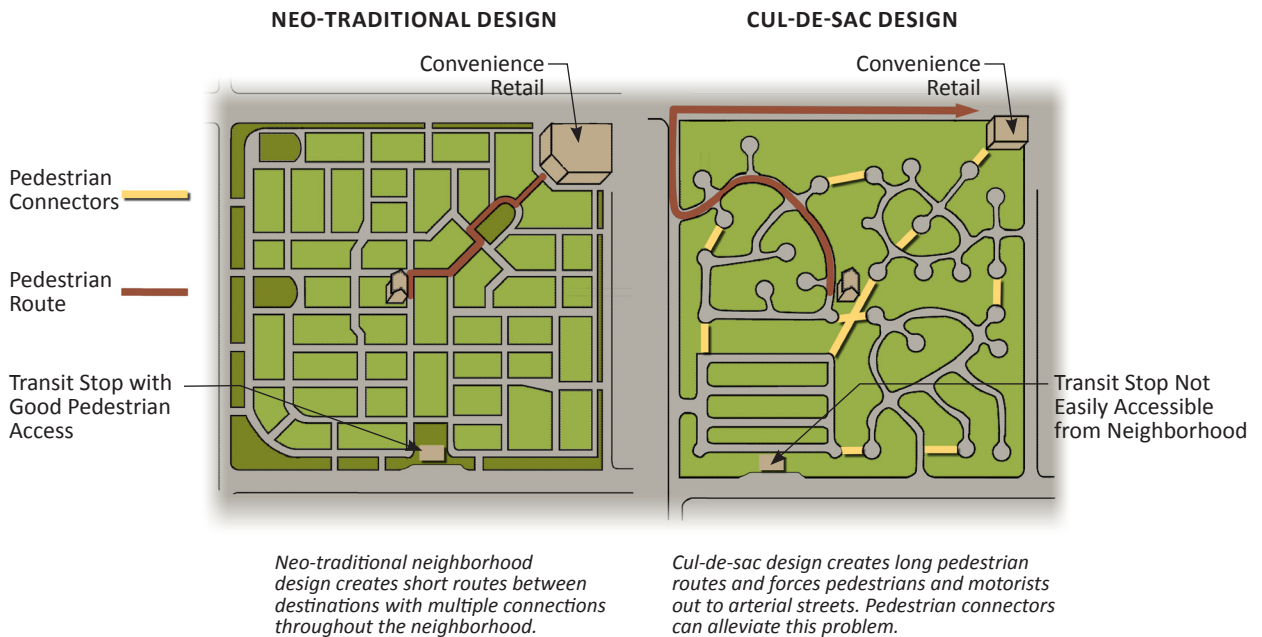
## Bicycle-Friendly Site Design

Bicyclists' needs are an important consideration in site design and development. Bicycle facilities and amenities should be provided when designing or retrofitting a site. Bicycle access from the street to the business or office should be provided via a separate path or a bike lane in the roadway (or via shared use on low volume, low speed roads and driveways).

Conveniently located bicycle racks and lockers encourage bicycle trips and commuting. Requiring bicycle parking in new development and redevelopment can also support bicycle travel. One approach is to establish bicycle parking requirements relative to expected demand based on land use. Another approach is to require that bicycle parking spaces be provided in proportion to the total number of automobile parking spaces (often 1:10). Or it may be desirable to reduce motor vehicle parking and increase bicycle parking in some locations.

If businesses are located close together, a shared bicycle rack can reduce costs and create an arrival space for bicyclists. To further encourage bicycle commute trips, employers can provide

**EXHIBIT 9.11** A Comparison of Neo-Traditional and Cul-de-Sac Neighborhood Designs  
(Adapted from the National Center for Safe Routes to School website information)



showers and changing facilities for their bicycle commuters. See *Bike Plan Hawaii* for more information.

Design circulation to avoid conflicts between bicyclists, pedestrian, and motorists. Avoid situations that might result in bicycle travel on sidewalks or pedestrian paths, unless the paths are designed specifically for shared use with adequate width (see Toolbox Section 7—Shared Use Paths).

## Transit-Friendly Site Design

Designers and developers should consider existing transit service as well as the potential for future or additional transit service at or adjacent to their site. If the site is along an existing transit route, it may be appropriate to coordinate with the transit agency to add a transit stop if the new development will be expected to generate transit use. If a transit stop is installed within a site, it should

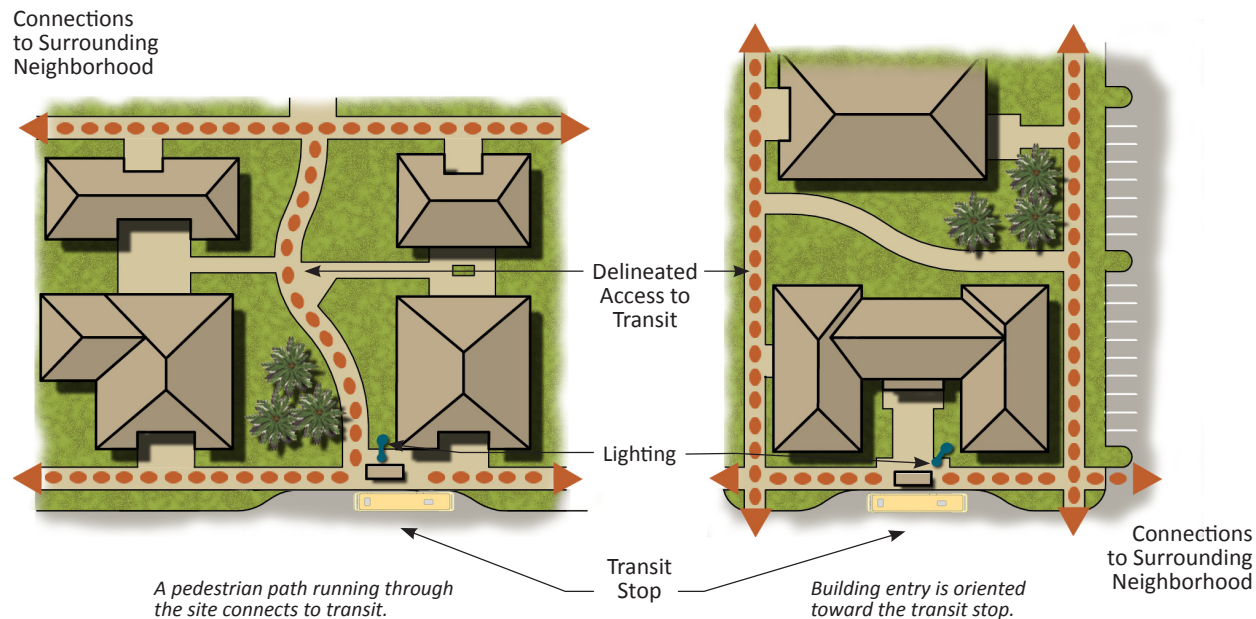


# SUCCESSFUL MIXED-USE SITE DESIGN CHECKLIST

- ✓ *Are the uses complimentary?*
- ✓ *Are the uses located within convenient walking distance of each other?*
- ✓ *Are the uses linked by sidewalks or paved paths?*
- ✓ *Are the walking routes short and direct?*
- ✓ *Do the buildings fit with and complement each other?*
- ✓ *Do the uses create activity at different times of day?*
- ✓ *Is parking kept out of the pedestrian's path of travel?*
- ✓ *Do the uses support one another economically?*

Source: *A Guide to Land Use and Public Transportation, Volume II: Applying the Concepts, The Snohomish County Transportation Authority*

**EXHIBIT 9.12** *Good access to transit is an important feature of pedestrian districts.*



be designed to meet local transit design requirements. (See Toolbox Section 6—Access to Transit for design guidelines.)

Employers can often provide incentives to commuters who take transit. Check with regional and local planning agencies to confirm existing commute trip reduction programs. See Exhibit 9.12 for an example of providing good pedestrian access to transit as part of site design.

## The Benefits of Mixed-Use Development

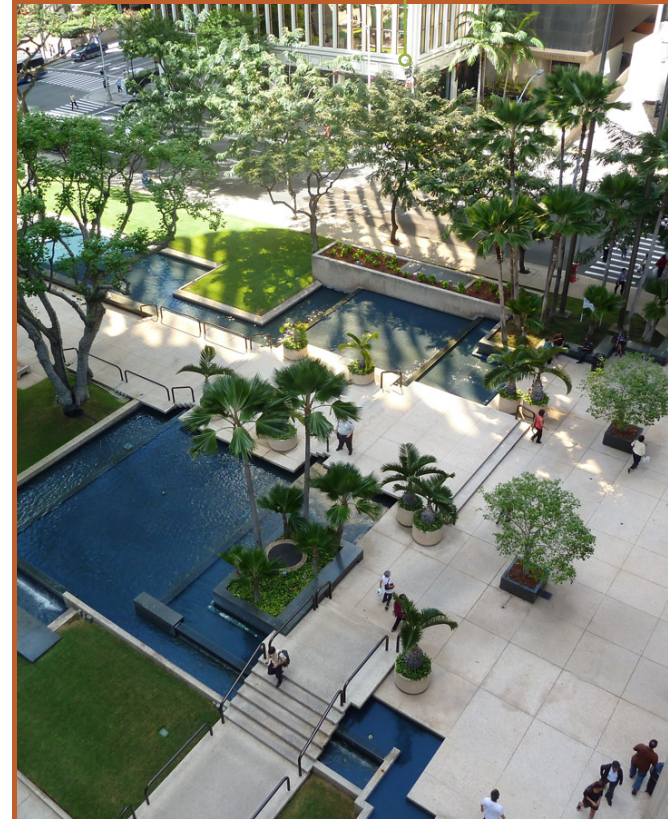
Mixed-use development was an integral component of traditional towns built before the rise of the automobile. However, since the mid-1900s, arrangement and design of land uses has often been scaled to driving rather than walking. Today's Americans are seeking a return to the more livable, walkable neighborhoods of the past. The pendulum is swinging back now, toward mixed-use site development, where compatible

**EXHIBIT 9.13** *Mixed-Use Site that includes Several Complementary Land Uses, Shared Parking, and Access to Transit*



*If businesses are located close together, a shared bicycle rack can reduce costs and create an arrival space for bicyclists. (Ferut Architects)*

*A generous building forecourt can create a vibrant pedestrian space.*







*Pedestrian exclusive areas should be perceived as both a destination and a pedestrian thoroughfare that connects a diversity of active users.*



## BASIC CRITERIA OF SUCCESSFUL MIXED-USE DEVELOPMENT

- *Complementary land uses such as residential and/or office with retail and restaurants and accessible to transit service*
- *Located within convenient walking distance of each other, usually ¼ to ½ mile or less*
- *Connected by safe, direct walkways*

land uses are developed on a single site or within a compact district. This may mean housing units above retail or commercial spaces within a single building, or a mix of land uses within a site, all located within convenient walking distance.

Local zoning ordinances should encourage mixed-use development, and mixed-use development should be allowed within or near single-family residential districts. Exhibit 9.13 illustrates a mixed-use site development concept.

## Special Pedestrian Districts

Special pedestrian districts are common in many urban areas and town centers of communities. In successful walking/shopping districts, a variety of usable outdoor spaces are carefully interspersed with businesses, housing, and civic buildings. Businesses benefit from pedestrian activity, and this may be the greatest incentive for developers to incorporate public open spaces into their site plans. Whether an active sidewalk, a large civic plaza, or a small pocket park, the integration and interconnection of outdoor spaces contribute substantially to making a pedestrian district economically vital.

A series of well-designed and integrated pedestrian facilities will encourage pedestrians to walk, explore, shop, and interact. Secure, attractive, and active spaces also provide focal points in the community. These spaces can be as simple as an expanded sidewalk for outdoor dining, or as complex as a large plaza with public art and entertainment.

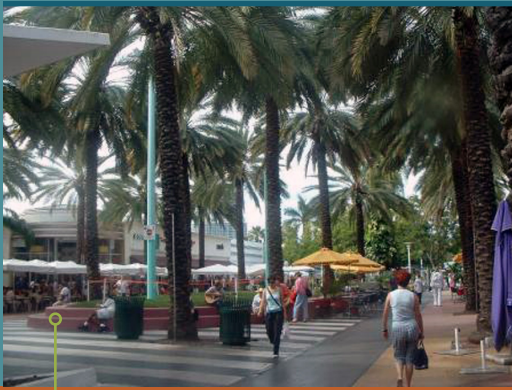
All of the design guidelines mentioned previously in this section relate to pedestrian-friendly sites and contribute to creating a broader pedestrian-





*A lively mixed use street scene in Corpus Christi, TX  
(Provided by Kathleen Kern)*





*A street with no curbs has been converted into a pedestrian-only space. Trees provide shade.*

*Successful pedestrian malls have highly programmed spaces and a constant level of pedestrian activity. (Shihmei Barger)*



friendly district. Some jurisdictions adopt pedestrian-oriented overlay zones or design guidelines for their special pedestrian districts to encourage pedestrian-friendly design.

## Sites and Corridors Used Exclusively by Pedestrians

Pedestrian malls, plazas, and other areas can be developed for either exclusive use by pedestrians or with the intent that pedestrians are the primary user group. These spaces can provide important opportunities to increase pedestrian travel in our communities and enhance the enjoyment of Hawaii's unique features. Since these sites serve high numbers of pedestrians, they are usually designed with the specific needs of pedestrians in mind.

These areas may be developed as part of other public spaces and facilities (parks, plazas, transit stations) that are essential ingredients for making communities pedestrian-friendly.

Exclusive pedestrian areas can support revitalization and economic development if they are lively, friendly settings that attract

residents and visitors. However, these areas must be planned and designed carefully to be effective. When areas are closed to motor vehicle traffic altogether, business success in the area can vary. Many pedestrian malls were developed in North American towns and cities in the 1970s. After these areas failed to attract customers, they become inactive and unsuccessful because businesses closed. These malls may not have succeeded because businesses did not get as much exposure to people driving by. (Vehicular traffic and street parking tend to generate more activity, increasing visibility of businesses, and creating a feeling of safety for pedestrians.) Many of these malls were subsequently reopened to motor vehicle traffic.

Some pedestrian malls have been successful, particularly in resort communities and some downtown and suburban shopping districts where there is a high level of constant pedestrian activity. For example, there are successful pedestrian malls in Denver, CO; Boston, MA; Minneapolis, MN; and Burlington, VA, among others. Successful pedestrian malls exhibit common elements such as:

- Shortness in length
- Strong cross-connectivity/visibility from cross corridors
- Appealing, human-scale spaces
- Overhanging tree canopies
- Mixed uses
- Heavily programmed activities (play spaces for children, street performers, and vendors)
- Incorporation of public transit
- Pedestrian scale lighting
- Public art, water features, colorful treatments, and other attractive elements

Today, many urban designers suggest that pedestrian-friendly multimodal streets are the best solutions for vibrant downtowns and commercial areas. Pedestrian design features and traffic calming design strategies to control traffic speeds and volumes can help to create a good pedestrian environment. If the desire is to create a pedestrian-friendly downtown, it is generally better to calm vehicle traffic and improve pedestrian and bicycle conditions throughout the

area rather than let high speed and high volume motor vehicle traffic dominate the environment.

Partial or temporary closures of streets for pedestrian use for festivals and special events or during special time periods (e.g. evenings, Saturday markets) are also becoming popular in many downtowns and town centers (see Festival Streets).

When pedestrian malls, corridors, plazas, and other exclusive pedestrian use areas are being considered, the following guidelines should be followed.

- Pedestrian exclusive areas require a critical mass of users. They should be perceived as both a destination and a pedestrian thoroughfare that connects a diversity of active uses.
- Encourage adjacent development that attracts 24/7 activity (residential, shops/retail, education, employment, entertainment, etc.). Mix uses as appropriate. For example, apartments and offices can often be located over shops.
- Create places where pedestrian activity thrives by introducing special events,



*This shared street in Cambridge, MA is closed to vehicular traffic for the majority of the day.*

*Temporary street closures can also create new spaces for play. (Allie Gerlach/SDOT)*







A map engraved into the sidewalk can provide wayfinding, education, and artistic interest.

Wayfinding elements are important in pedestrian-only spaces.



entertainment, music, concessions, seating, and outdoor cafes. Use the space as a hub for a variety of artistic, cultural, and recreational activities and amenities (street fairs, historic interpretation, markets, play equipment, water features, etc.)

- Create an attractive, pleasant environment, with streetscaping, shade, amenities, pedestrian lighting, public art, and other features. Buildings and street furniture should be pedestrian scale. Avoid or minimize blank building walls or routing pedestrians next to garbage dumpsters.
- Special paving and accents can enhance plazas and pedestrian districts by unifying district identity and providing a clear message to tourists as to where they should walk.
- Wayfinding signage is an important tool in these areas, and can be used both to identify elements within the district and to clearly orient and direct pedestrians.
- Allow motor vehicle access for emergencies, service vehicles, and deliveries. Delivery vehicles can be allowed based on need and during selected time frames (may include

unrestricted motor vehicle access during morning hours). It may also be desirable to allow transit vehicles, resident and hotel pick up, or other special vehicle access.

- Maintain high standards for security, cleanliness, and maintenance.

## Shared Streets, Festival Streets, and Play Streets

A shared street is a common space shared by pedestrians, bicyclists, and low-speed motor vehicles. These streets go by many names, including “green”, “festival”, and “play” streets. They commonly incorporate sustainable design features. “Shared street” is the term commonly used in English; its origins are based in the concept of a “woonerf,” which is a Dutch term loosely meaning “living street.” Pedestrians and cyclists have priority (and legal rights, in many European countries) over motorists.

Shared streets are typically narrow streets without curbs and sidewalks. Motorists tend to slow down when trees, planters, parking areas, and other elements are placed along the street.





A festival street is closed to vehicular traffic for a community event in Seattle, WA.

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Special Pedestrian Districts and  
Site Design for Pedestrians



With these types of streets, motorists become the intruders and must travel at very low speeds below 10 mph. This makes a street available for public use that is essentially only intended for local residents or businesses. A shared street can be a residential street, or it can be a street in a commercial area. In the latter case, the streets are often populated by restaurants, cafes, merchant displays, street vendors, and other outdoor commercial uses.

Shared streets can also be designed as green streets, with sustainable and low-impact design, such as stormwater run-off mitigation. Green streets often involve narrowing the roadway to reduce the amount of area devoted to traffic and parking and increase the amount of “open” space for sidewalks and landscaping. They also have connected and well-defined bike and pedestrian paths.

A festival street is designed to be closed to motor vehicle traffic during community festivals and events. The vehicle way is typically designed to be at the same grade as the pedestrian walkway to create a curbless street, where the walkway is delineated with removable bollards.

The street can be further enhanced with special paving. Festivals streets are sometimes an extension of an adjacent plaza space.

Play streets are designated residential streets that are closed to vehicular traffic during certain hours, typically late afternoon after school. These streets provide safe areas for children to play without compromising safety. With the assistance of adult volunteers and local police, streets can be barricaded and signed to create these temporary areas.

Consideration must be given to provide access by emergency, sanitation, and other service vehicles (school buses and street sweepers), if needed.

A shared street is generally not appropriate where there is a need to provide nonresident motorists with access to services or through travel.

Access should always favor pedestrians. Other design considerations are listed below.

- Where shared streets cross other streets, the sense of pedestrians as the priority users should carry through the crossing. This may

include extremely wide crosswalks, special paving, and pedestrian only crossing signals.

- Where possible, eliminate left-turns and free-right turns at intersections of streets where high volumes of pedestrians cross.
- Drop off and pick up zones for large buses, trolleys, and other touring vehicles are best located on other streets and not on shared streets. (But nearby transit access is desirable.) Any parking or loading areas should be clearly delineated and located to avoid interrupting pedestrian travel and impeding views between pedestrians, bicyclists, and motorists.

## Other Resources

The following sources of information are recommended for site design for pedestrians.

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**SLOW  
DOWN**

Drive  
Safely

**NO  
SPEEDING**

**Click it  
or  
Ticket!**

**DRIVE**  
safely

**CELL  
PHONES**  
Can wait

**ATT**

You Got  
**Brakes**  
USZ'ZM

**HONK**  
4

**EYES**  
ON THE  
road!