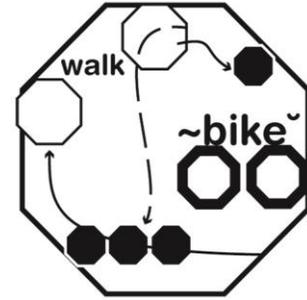


# Pedestrian-Oriented Design



## Background

### Definition

Walkable communities are places where people can easily and safely walk to access goods, services and local amenities. They are places that have a variety of transportation options and where pedestrian activity is encouraged. Pedestrian-oriented design encourages a dense mix of land uses including compact residential and commercial areas, smaller block sizes, design features that prioritize pedestrian safety, and local amenities such as parks, street trees and public art. Pedestrian-oriented design also helps to make places more walking friendly by providing a range of transportation options. These can include clear, comfortable pedestrian pathways, bicycle connections, bicycle parking, access trails and walkways, and transit options and access to bus stops.

### Health, equity, and sustainability considerations

More than [20% of trips](#) in the region are less than one mile. For these short trips, walking can be the most efficient way to travel. Furthermore, 14% of trips less than one mile are completed by driving alone, while 18% of these trips are completed by two people driving together. In order to encourage people to take more walking trips, an emphasis on safety, walkable communities, and connectivity should be a priority.

**Pedestrian infrastructure can yield up to a 200% increase in walking trips.**

One way jurisdictions can help increase the number of people walking is to market the many benefits such as improved personal health, lower greenhouse gas emissions, and cost savings (parking fees, gas, etc.).

Walking is a practical way to increase physical activity and improve health. The [Centers for Disease Control and Prevention](#) has drawn connections between active transportation, including walking, and a reduction in obesity, diabetes, osteoporosis, pulmonary and cardiac diseases, and even cancer.

Increased pedestrian activity reduces the reliance on driving and therefore reduces emissions from automobiles. A [5%](#) increase in neighborhood walkability is associated with 6.5% fewer vehicle miles traveled (VMT) per capita. Fewer vehicle miles traveled results in a reduction in fossil fuel consumption and the resulting greenhouse gas emissions. Projects that support walking are often designed in ways that have environmental benefits, such as green landscaping, street trees and in some cases, the use of permeable surfaces.

Making it easier for residents to walk to their destinations can also stimulate the local economy. Providing quality pedestrian access can reduce costs associated with traffic congestion and parking. An influx of foot traffic can also boost sales at local businesses. Walking saves money on transportation costs. This [green](#)

[dividend](#) can be spent on things other than transportation, such as restaurants and retail purchases, which helps to keep money in the local economy.

## Program and Policy Examples

### Program Examples—How is it used locally?

Cities can play an important role in providing walkable communities. By implementing pedestrian-oriented design strategies, local communities achieve economic and health benefits, and create a sense of place. Pedestrian-oriented communities are often best located within centers, near transit, schools, retail areas and other places where people may access goods and services within walkable distances. The following outlines specific strategies for implementing pedestrian-oriented design.

#### *Small Block Sizes and Dense Mix of Land Uses*

Walking distance to amenities is one factor related to “walkability.” Land use strategies can help to facilitate

this by providing a dense mix of land uses, including compact residential and commercial areas, with smaller block sizes, which are more manageable on foot. Block size is a good indicator of pedestrian-scale development and overall walkability. A small average block size reflects multiple access points to the activities located on that block, and a fine network of streets.

For a high degree of walkability, block lengths of [300 feet](#), more or less, are desirable, although blocks of 400-500 feet still function to support pedestrian-oriented environments. These are typical in older, urban areas. Block sizes that are more scaled to the automobile (more than [600-800 feet](#)) can be made more pedestrian friendly with mid-block crossings as well as pedestrian pathways between buildings, through alleys and along easements to allow for access to amenities within a walking distance.

#### *Connectivity of Walkways*

The connectivity and contiguity of sidewalks and pedestrian pathways facilitates walkability and is critical for safety and to accommodate people of all ages and abilities. Connected walkways can also help break up large block sizes into more manageable walking distances. Connection to regional trails and shared use paths can help to improve this connectivity. The quality of pavement is critical for the safety of all users. Wider sidewalks than the recommended five feet may be installed in busier areas with high concentrations of pedestrians.

Prioritizing pedestrian infrastructure can be a challenge for jurisdictions that lack pedestrian amenities. Local jurisdictions can begin to evaluate high priority areas by including sidewalks and pathways in the inventory of the transportation system, developing pedestrian networks for incorporation into comprehensive plans and assessing areas that are most appropriate for pedestrian-oriented design such as within local centers, retail and activity centers, near schools or parks, transit hubs, or in areas that have



historically lacked investment such as low-income areas that can benefit from infrastructure that provides lighting and encourages safety and visibility. Safe Routes to School programs are a great initiative to encourage walking and network planning in and around schools.

Local communities should then consider the walking distances and existing infrastructure from these destinations when assessing pedestrian routes. An industry standard for an average pedestrian trip is about one-half of a mile, or about a ten-minute walk. Considering the walking distances, conditions and routes to access these destinations is the first step in developing a pedestrian network.

Sidewalks are opportunities for social engagement as well as for taking walking trips. In small centers and rural main streets, the sidewalk becomes an integral part of community character. Community outreach is one of the key elements to assessing pedestrian networks. Jurisdictions are encouraged to engage with community members to identify needs.

In 2013, the City of Olympia created the [Neighborhood Pathways Program](#) to increase neighborhood walkability and to involve residents in the creation of pedestrian and bicycle paths in their neighborhood. The program works to construct non motorized routes that connect to parks, streets, schools and other services. Local neighborhood associations are the key driver behind the proposals for the program. The majority of construction is to be completed by community volunteers. The [Olympia Bicycle and Pedestrian Advisory Committee](#) gives about \$150,000 to the program every year. Funding comes from a private utility tax approved by voters in 2004.

The [City of Tukwila](#) assessed walking distances in order to prioritize investments. The city assessed walking distances one-fourth and one-half mile from priority destinations such as schools, shopping centers and employment hubs. This information overlays the existing transportation system, including sidewalks, paved shoulders, and existing, and future separated shared use paths.

#### *Access to Walkable Places*

As jurisdictions prioritize pedestrian improvements, a range of travel options also should be considered. Bicycle networks that connect to pedestrian zones and a range of transit options help facilitate access to walkable communities. Access to transit stops within walkable communities as well as adequate bicycle parking helps to relieve congestion and parking pressure within areas where pedestrian activity is encouraged.

#### *Engineering Solutions for Safety*

Safe crossings are also critical to supporting pedestrian-oriented design. Crossing treatments at bus stops, intersections and mid-block crossings within reasonable walking distances help to prevent dangerous jaywalking in areas with high concentrations of pedestrians and transit users. Improving visibility at crossings, refuge islands and increased crossing times that accommodate people with slower mobility can improve safety in walking environments.

Curb extensions (also called bulb-outs) extend the sidewalk into the parking lane in order to narrow the roadway, shortening crossing distances, slowing traffic speeds and providing additional pedestrian space



and visibility. It is critical that public works engineers are highly trained in pedestrian design issues and kept up to date on best practices.

### ***Pedestrian Priority Zones***

Pedestrian priority zones help communities identify places that may attract high numbers of pedestrians and provide for vibrant streetscapes that create a high quality of life. These zones are often located within local or regional centers and near transit and bicycle infrastructure. Signage, art, wayfinding and safe infrastructure help to facilitate a pedestrian zone.

### ***Reduce speed limits***

In 2013, the Washington State Legislature passed the [Neighborhood Safe Streets](#) bill, which allows more flexibility for local communities to reduce speed limits to 20 miles per hour. This provides communities another option for creating safer environments for all users.

Jurisdictions can also improve pedestrian safety by improving lighting and visibility on walkways. This “eyes on the street” strategy can help to improve real and perceived safety along pedestrian networks. The [Crime Prevention Through Environmental Design](#) resource guide provides more information on design strategies to promote safe spaces.

## **Implementation**

### **Opportunities for funding**

The Washington State [Department of Commerce](#) offers several grants that provide funding for pedestrian-oriented design efforts, including the Washington State Community Development Block Grant and funding from the Community Economic Revitalization Board.

Local jurisdictions also have the opportunity to pass an ordinance or tax levy to create an ongoing funding source for pedestrian improvements. In 2004, voters in the City of Olympia approved a [3% increase in the utility tax](#) to fund improvements to parks, sidewalks, and open spaces.

Additionally, many pedestrian-oriented design projects may be eligible for funding from complete streets funding programs. See the Complete Streets resource guide for more information.

### **Considerations for local implementation**

[Transportation 2040](#) calls for the development of local and regional pedestrian networks. Identifying networks can help direct resources to those areas with the greatest likelihood to result in increased walking.

Centers (both regional and locally designated) and transit station areas are ideal locations for investments that support and encourage more walking. Further, following the direction of [VISION 2040](#) and encouraging compact development patterns near transit should result in places that are more walkable.

Municipal code and improvement districts can support the development and maintenance of pedestrian infrastructure. The [City of Lacey’s municipal code](#) (16.25) outlines sidewalk requirements and maintenance

for the city's central business district. These requirements include planter strips separating sidewalks from the street curb and a local grant program to fund sidewalk improvement.

### **Challenges to implementation**

One explanation for why some people choose not to walk more is because of real or perceived issues of safety. Pedestrians are much more vulnerable to incidents involving motor vehicles than almost all other modes of transportation. Safety issues stem not only from conflicts with motor vehicles, but also from places that may pose a crime risk such as poorly lit areas. Enforcement strategies—aimed at specific locations or at specific behaviors that put pedestrians at risk—are crucial to overcoming these barriers.

## **Resources**

The City of Seattle's [Pedestrian Toolbox](#) (2014)

Federal Highway Administration's [A Resident's Guide for Creating Safe and Walkable Communities](#) (2008)

Feet First's [Walking Audits](#) (2014)

Puget Sound Regional Council's [Active Transportation Plan](#) (2014)

Tacoma-Pierce County Health Department's Healthy Community Planning Toolbox—Policy Intervention Tool: [Placemaking](#) (2013)

University of British Columbia's [The Walkability Index](#) (2013)

U.S. Department of Transportation's [Walkability Checklist](#)

U.S. EPA's Technical Assistance for Sustainable Communities: [Walkability Workshop Report](#) (2011)

[Walkshed tool](#) (2010)