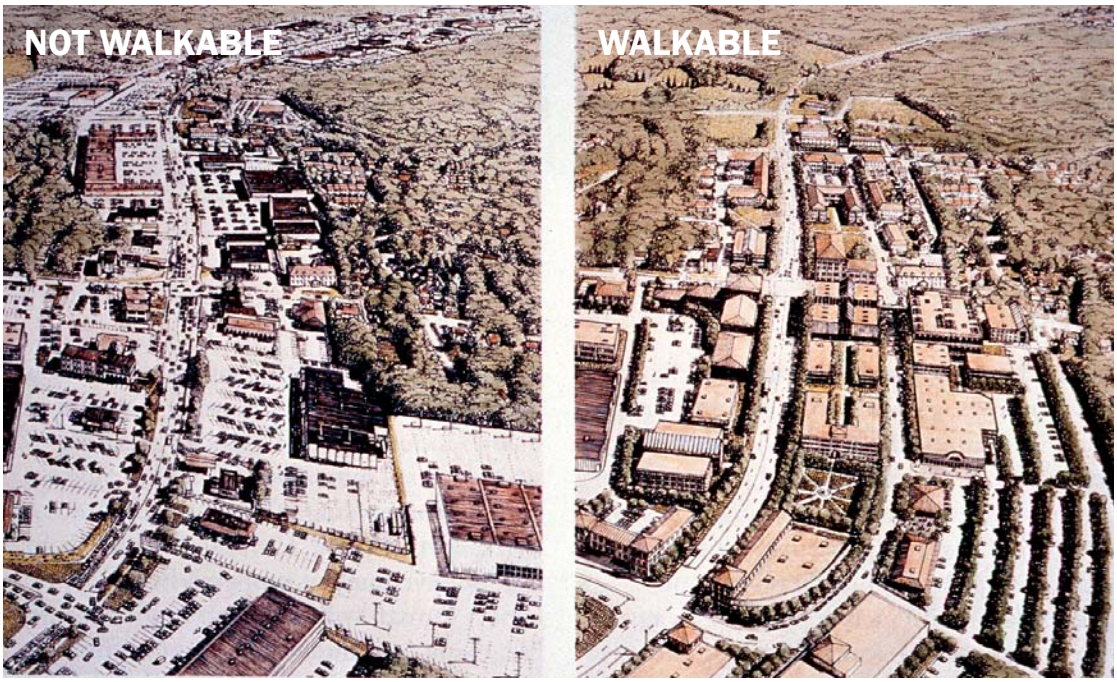
After years of neglect, street design is re-emerging as a major element of neighborhood street engineering, town planning, and real estate development. The desire for healthy streets and neighborhoods is not something new, but recently real estate marketers have started to promote walkable and neighborly streets as an amenity that establishes a difference from what is usually offered in the real estate market. Pedestrians in most cities say they want well-designed neighborhood alleys, lanes, and streets that keep motorists speeds between 10 and 25 mph, and provide on-street parking, sidewalks, shade, benches, street lamps, and other community amenities. All these elements create a friendly environment that invites people to be on the street, reducing unnecessary car trips and traffic volume, and strengthening bonds between neighbors as they interact more frequently in the public realm.

What is Walkability?

To understand the value of this planning activity, it is a good start to discuss walkability itself. To be safe and comfortable as pedestrians, we need facilities to complement our streets and built environment. The design and construction of sidewalks, paths, and crossings determines how effectively we can get where we want and need to go by walking.

What truly makes communities walkable is the relationship between the way its people move around on foot and the destinations and attractions to which they are moving. The nature of pedestrian facilities may be different based on what part of our community we are in, but we need to provide good infrastructure for walking throughout.

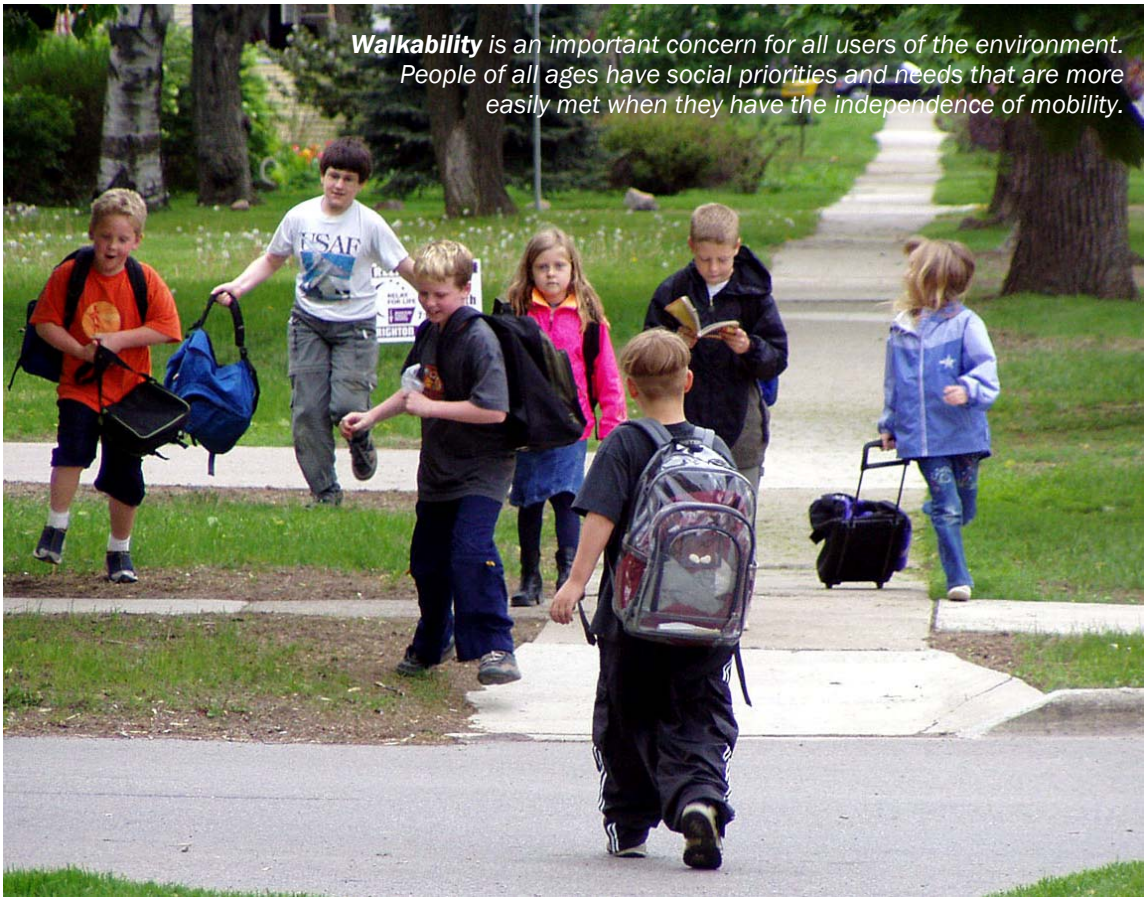
People created cities and towns to minimize the need for and distance of travel and to maximize exchange: of people, goods, services, culture, information and wisdom. The best cities and towns are places that are fully accessible by the most basic form of transportation— our feet.



The most walkable communities are those that have succeeded at bringing all of these elements together. When land use and development are coordinated and ordered to allow the pedestrian as much comfort in reaching their destinations as the driver, the community is truly open and accessible to everyone. Adjacency and a human scale are part of the design of these places, not a need to accommodate the automobile.

As much as walkability promotes independence, it is also an important contributor to the strength of our sense of community— namely, of *interdependence*, social interaction, and common ownership of our cities and towns. Only in walkable environments do streets truly become public space, the incubator of cities' imperative for exchange.

While this design workshop process focused on the technical aspects of the pedestrian environment throughout the corridor, it asked larger questions of how pedestrians could understand and navigate their community and the nature of the community itself.



***Walkability** is an important concern for all users of the environment. People of all ages have social priorities and needs that are more easily met when they have the independence of mobility.*

Understanding walkability means that we recognize how our towns and cities work for or against us in walking, bicycling and living. The built environment ranges widely in its safety, security and friendliness to pedestrians. The illustrations above demonstrate this wide range. Today as much as a quarter of the built environment is not friendly to pedestrians, providing no walking facilities and no eyes on the street. This makes these areas inconvenient or uncomfortable for walking. Much of what we have around us is tolerant, not supportive of walking. These are places where we can walk, but where walking might not be as rewarding as it could be. Environments that create "place" are the prize of walkability. Not everywhere will fully reach this level: Quality place locations generally make up only five or ten percent of our towns and cities. Communities that actively promote walkability understand that walking-tolerant environments can always be improved and made to be walking supportive. Creating walkability often starts with one model project. A mix of uses, improved connectivity, aesthetics and pedestrian scale are essential to these models.

Security — Surveillance. People choose not to walk in those places where they do not feel secure. Design of facilities is not the only consideration. Pedestrians are most often traveling along streets and roads along with vehicles; even if their paths are separated, streets will not be amenable to pedestrians unless their design reflects the scale and needs of people.

Eyes on the street is a very important component of providing safety to the public realm. Having porches and windows close to the street not only define the edge of the public space, but also provide surveillance and opportunities for interaction.

Buildings should be built in close proximity to the street with their "prime" façade facing the main travel way. Secondary sides should also provide surveillance.

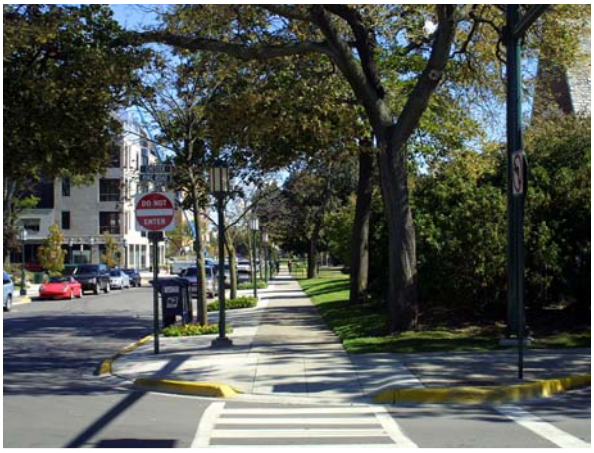
Convenience — Mixed Use. The more stores, services, entertainment and places to meet people exist in a place the more that place gets used. The most walkable communities are the least auto dependent and have succeeded by honoring historic town making principles of: (1) mix of land uses, (2) high connectivity, (3) proper density, size and placement of buildings, (4) aesthetics (placemaking), and (5) quality street making. When land use and development are coordinated and organized to allow pedestrians as much comfort in reaching their destinations as drivers, the community is truly open and accessible to everyone. Adjacency and human scale drive the design of these places, not a need to overly accommodate and incentivize the automobile. As towns shift incentives from one mode of travel to many, more balanced communities result, and it is possible to provide relief for auto congestion.

Revitalization and redevelopment along Nord Avenue should incorporate design for pedestrian dimensions and distances through compact form, layout, and streetscape characteristics.

Efficiency — Places that Work. People seek to spend time in places that work; where they can get back and forth across streets, travel up and down a street without vehicle conflicts, have easy access to stores, plazas and other places. The alignment of sidewalks and paths should allow pedestrians to find their path intuitively.

Comfort — Green, Sense of Place. People choose to walk in those places they find most comfortable, attractive, cared for and special. Street trees are a way to provide comfort to pedestrians. The presence of street trees provides a sense of enclosure, shade, protection for pedestrians, beauty, and environmental benefits such as the reduction of heat.

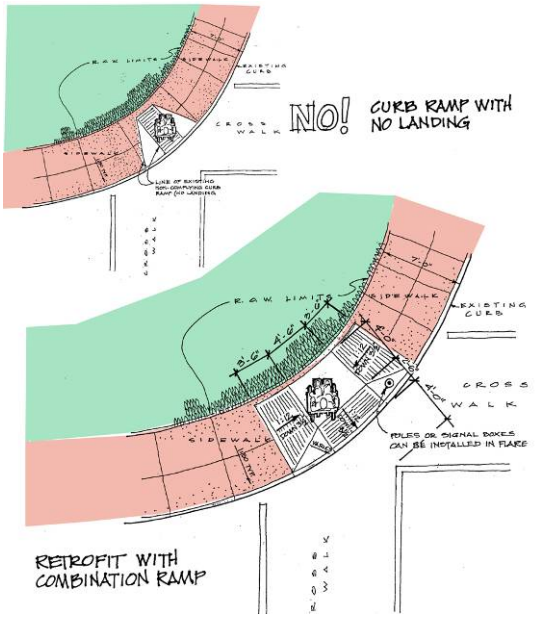
Welcome — Inviting. People will walk to and in an area if they find it to be a positive and rewarding experience. These areas typically have many other people present and are fun places to see and be seen. Places to sit, vegetation, rest rooms make people feel welcome.

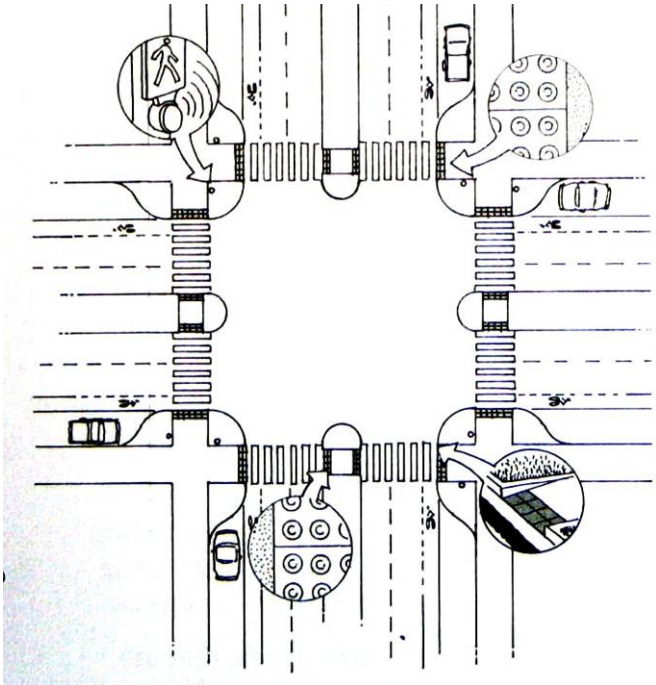


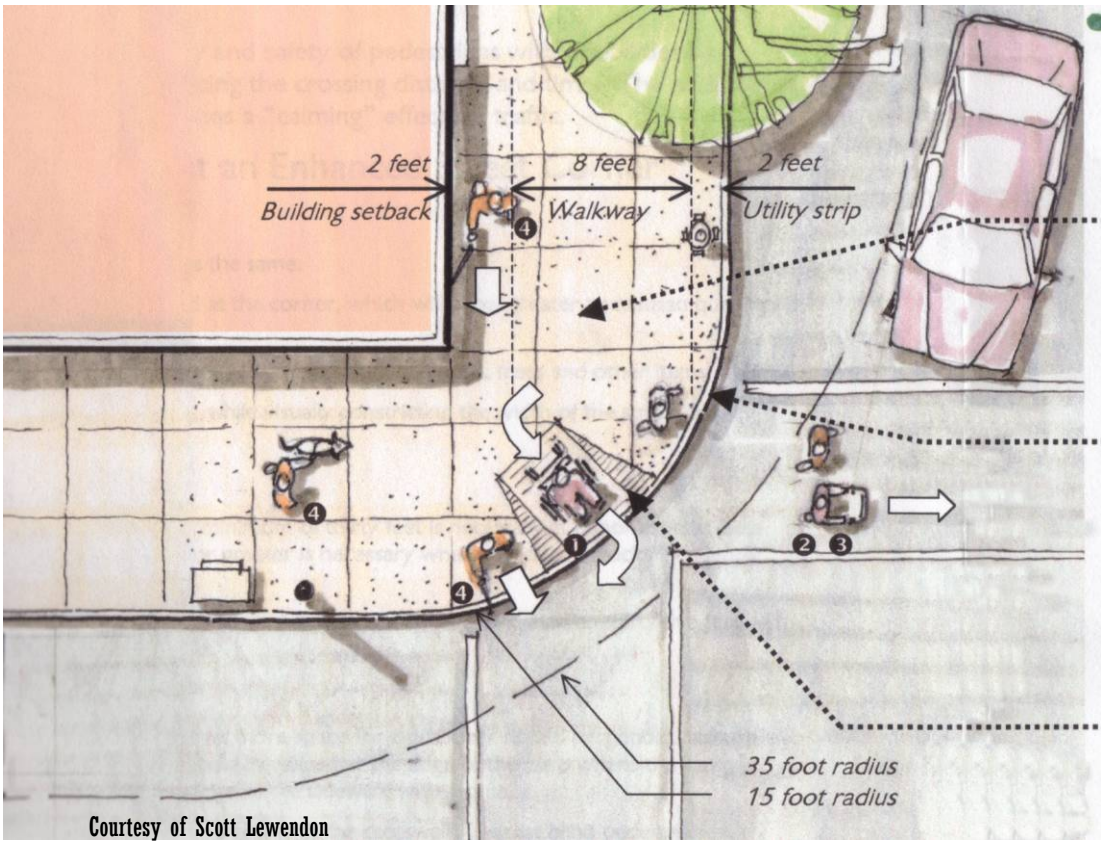
All parts of all communities must be accessible to all users. Today many locations in American communities are inaccessible to people with disabilities. This section summarizes measures to be taken along walkways, at transit stops, signalized intersections, roundabouts, along corridors, midblock crossings, driveways and other locations. The goal is to have communities become barrier-free places for people of all abilities to get around in. Prioritizing change is necessary.

Specific universal design objectives of this plan are to:

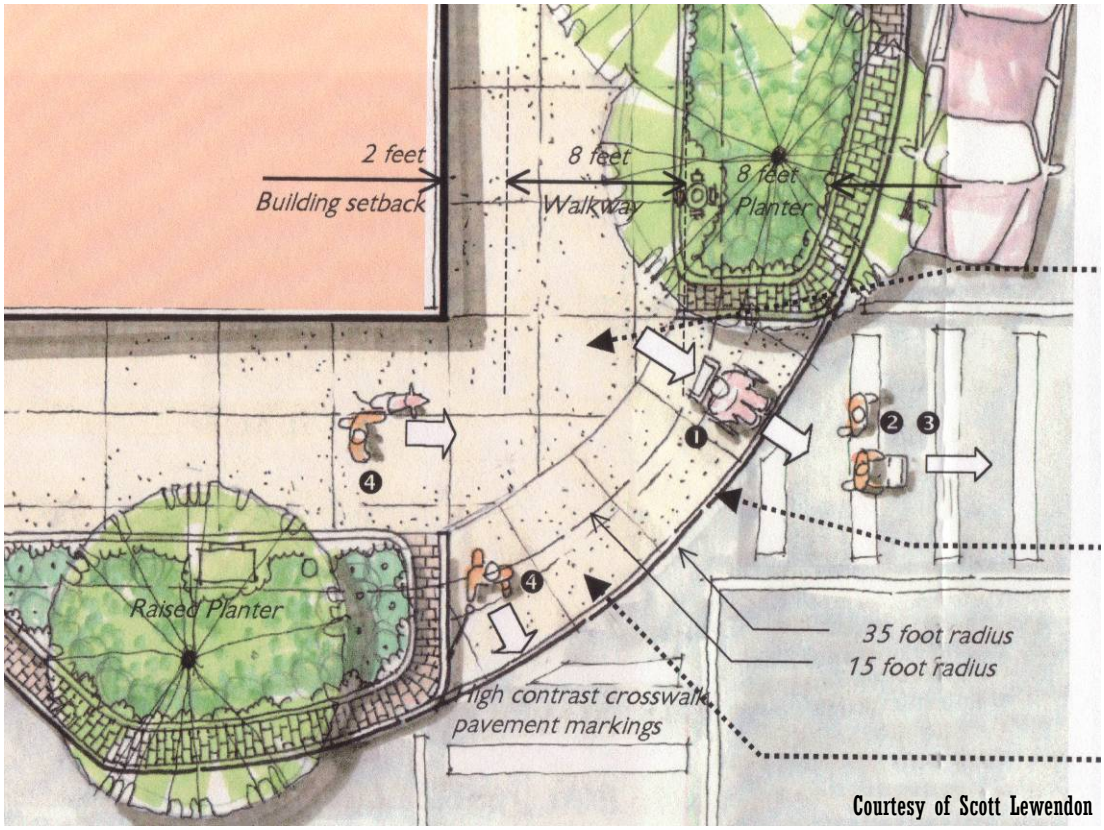
1. Provide full accessibility to all areas of the community, including all buildings, parks, plazas, trails and open space.
2. Provide the highest quality tactile and contrast materials to help guide all street users around obstacles, and alert people when they are entering and leaving motorized or bicycle conflict areas.
3. Provide curb extensions on many corners to minimize crossing distances, create greater sight distances and increase the numbers of locations where two ramps are used on corners.
4. Minimize the numbers of driveways and reduce crossing distances of driveways throughout the community.
5. Eliminate or minimize the creation of temporary barriers, especially along popular routes of travel.
6. Create frequent midblock crossings to keep people along their desired line of travel.







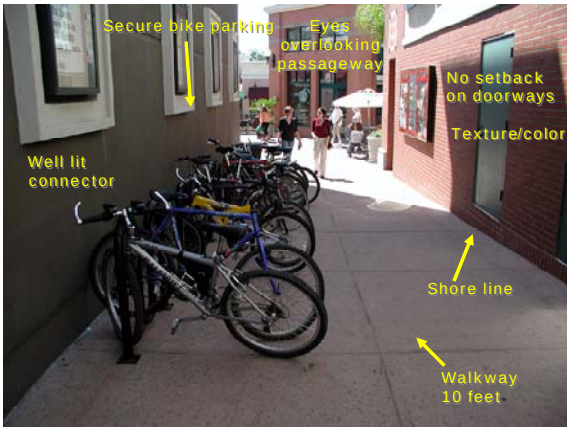
Courtesy of Scott Lewendon

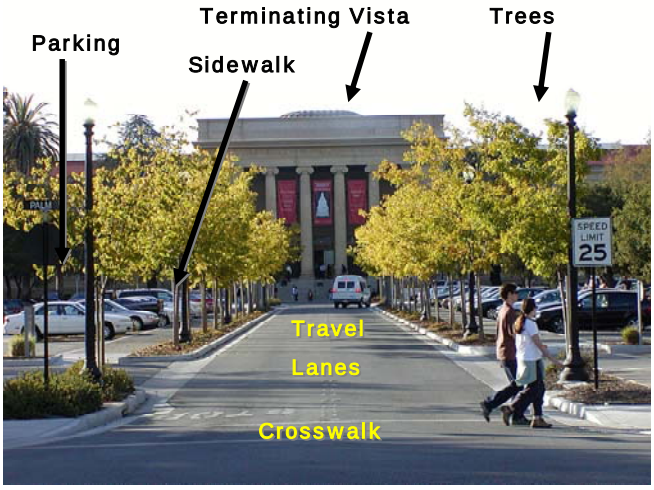


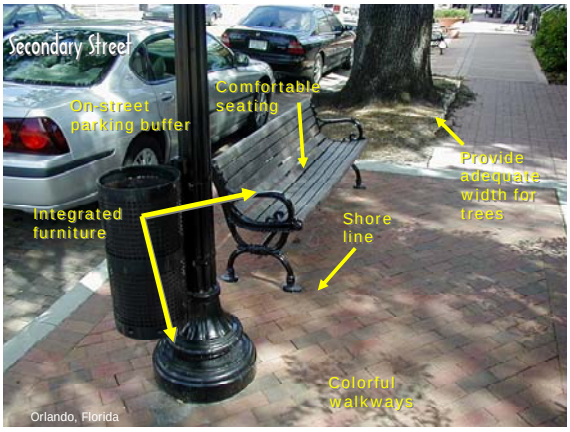
Courtesy of Scott Lewendon

Sidewalks and walking spaces have names and parts, just as buildings do. These images establish a working vocabulary for important parts in communities and urban retail streets. Omitting "eyes on the street" or leaving out a terminating vista or vertical wall of street trees that guide the eye down a street leads to a place that feels incomplete or uncomfortable.

Street furniture should be coordinated, just as it is in a living room. Comfort is achieved by having the right parts in the right place.







Not all elements of a street come together in its initial design. For this reason a working group should remain active to evaluate and give input on what changes are needed. The best remade places in North America are organic, tinkered with on a steady basis. I have gone back to Santa Barbara's State Street and seen changes each year or two for two decades now. I expect to see more tinkering as this lively place continues to mature.

The area of urban streets generally referred to as the "sidewalk" is actually composed of different parts, each of which serves its own function and defines the amenities and comforts of the pedestrian environment.

The "shy zone" is the portion of the sidewalk within two to three feet of the building where pedestrians may not feel comfortable walking due to the possibility of opening doors or decorative features on the building (it should be noted that these decorative features may include awnings and other overhead canopies, which can make the unused "shy zone" into the much-used "dry zone" in rainy weather).

The walk-talk zone is the part of the sidewalk accommodating the most activity, where people move and have room to stop and socialize. In healthy urban pedestrian environments, the width of this zone varies but always includes sufficient space for the volumes of pedestrians to move without needing to be diverted onto the street or other zones of the sidewalk.

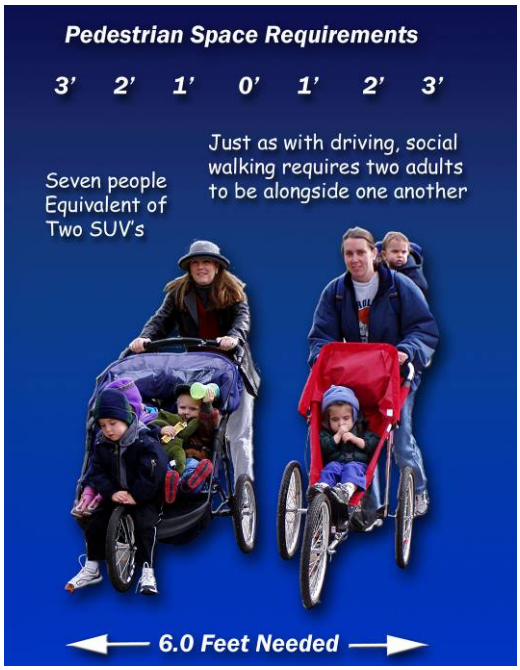
The furniture zone is the part of the streetscape where trees and plants are placed, as well as benches, bus shelters, and other functional items allowing pedestrians to sit and wait or to connect to the other functions of the street.

Pleasure Walk 30-35 feet

Normal Walk, 15- 18 feet

Shopping, 9 - 12 feet

Festival or Public Event, 6 feet



***Space Needs**. There is no "perfect" sidewalk dimension. Each street and sidewalk is unique. Meanwhile, it is important to know the minimal space needs of people. Too little space at certain times creates discomfort. Too much space at other times and a person feels lost and alone. At different times of day we use the same walkway for different purposes, and need more or less space. There are times of day where a walkway feels "just right" or leaves us with a desire to come back when more people are present.*

A walkable system relies on proper levels of quality and place.

Five Levels of Quality (LOQ) are specified. The Pedestrian Spine is the highest quality and walking experience, known as "place." This pedestrian spine corridor is the location where people want to linger and spend the greatest amount of time, and where the highest levels of association occur.

"A" quality is designated as "Place." Added sidewalk width, color, texture and great, actively used buildings create place. Traffic speeds and noise are under high levels of control. Crossing streets is safe and easy.

"B" and "C" quality streets provide highly desirable walking conditions. These areas are considered complete. They have high levels of building surveillance, 8 foot wide or wider sidewalks in most locations, shade and other qualities, such as ease of street crossings, low noise and well behaved traffic.

Quality "C" sidewalks are desirable, supportive walking environments with 6-8 foot widths, planter strips, trees and good building surveillance. These walkways offer a variety of connectivity to the spine, and to popular destinations found en route.

Quality "D" streets and walkways make up the bulk of other walking (50% or more) places, and form all areas not highlighted in A, B and C designations. Sidewalks are 5-6 feet wide, and usually detached from the curb. D streets and walkways will have comfortable and adequate walking conditions. Surveillance will be good to high, and walkways will be comfortable. Buildings watch over walking spaces.

"E" locations in the chart are not graded. "E" walkways are trails and other open locations.

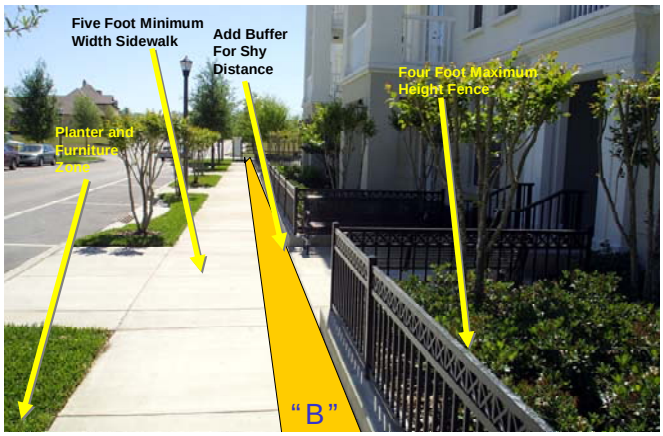
"A" Quality Place

"B" Quality High Support

"C" Quality Strong Support

"D" Quality Fair Support

"E" Special Trails (Other)



Comfortable B and C quality sidewalks and walking spaces meet minimum dimensional needs. Each of these walkways are comfortable for two people to walk side-by-side, and allow the occasional person coming the other way to pass. If walking volumes are moderate or high, added width is used to increase comfort.

Main street sidewalks: Main streets require that shy zones, furniture zones and walk-talk zones are adequate. When one of the zones does not exist, or is too narrow, comfort is decreased.

Neighborhood sidewalks: Fence heights are established to create a sense of public vs. private space, and to give psychological comfort when a significant drop off is encountered.

These examples show how a road with intolerant pedestrian conditions can be turned around into a focal point for the community. Creating places for people, not just cars, benefits everyone by increasing the potential of the local economy, providing transportation options, and strengthening the social fabric of the community.

Specific bicycling objectives of this plan are to:

1. Develop a bicycle-friendly system of trails, bike lanes, shared routes, connectors and links.
2. Integrate the City's bicycle-friendly roads and bikeways with surrounding bicycle-friendly roads and bikeways to maximize connectivity.
3. Develop bicycle-friendly roads and bikeways that serve the full spectrum of bicyclists, from the most youthful to the most senior.
4. Provide clear bike route information to bicyclists by installing adequate signs along bikeways. Signage should be specific. A route numbering system should be used, and signs should guide cyclists to key locations such as "Shelby Farms Park."
5. Build new bicycle paths on separate rights-of-way to transit stations, schools the University and other places where it can be done, with convenience to bicyclists and in a cost effective way.
6. Build appropriate bridges and connection systems across waterways and highways.
7. Build high quality waterfront trails to protect and preserve public access to water.
8. Plan and configure undeveloped land to maximize bicycle transportation and recreation.
9. Each time arterial and collector streets are resurfaced they should be re-striped to add bike lanes where there is enough width. Travel and turn lanes should be narrowed to as little as 11 or 10 foot widths in order to make these accommodations.
10. When any road work repairs are done by the City or other agencies such as utilities, the road shall be restored to its original quality, with particular attention to surface smoothness and re-striping suitable for bicycling.

Bicycle Facilities and
Shared Use Trail Definitions:

Bikeway – Any of a number of facilities designed, constructed and operated for support of bicycling. Bikeways can be either on-road or off-road facilities.
Multi-Use Trail – A pathway fully separated from a highway right-of-way traveled by pedestrians, bicyclists, inline skaters and other non motorized vehicles and devices.
Bike Lane – An exclusive lane of a roadway fully dedicated for bicycling and sometimes other non motorized vehicle movement, such as inline skaters.
Wide Curb Lane – Many roadway lanes are wider than the standard 12 foot lane width. Many are as wide as 20 feet. When wide lanes are used to support bicycling they are often signed as bike routes. A minimum width for a wide curb lane is 14 feet.
Paved Shoulder – On highways in many suburban and rural areas paved shoulders of 4 or more feet are added to each side. These are either left unmarked, or may be marked as bike lanes or bike routes.
Bike Route – Bike routes are travel ways shared by bicyclists and motor vehicles that are signed as a navigational aid for bicyclists. Generally bike routes should have a secondary sign such as, "To Shelby Park."
Bicycle Boulevard – Bicycle boulevards are generally a single or a series of local streets that are connected to form a throughway for bicycling and walking. These boulevards often include tree canopies, occasional diverters to keep motorists from using them for direct travel, and some connectors, bridges and other methods to provide trip continuity.
Greenway –A wide corridor of open space traversing long sections of land. Often multi-use trails are built in greenway systems to help protect and preserve them and to allow bicyclists and pedestrians to enjoy their features.
— Walkable Communities

11. Intersections should become more compact and efficient and easier for pedestrians to cross. There should be appropriate new midblock crossings to make it easier to get to common destinations. Use of roundabouts at several key intersections can improve flow and help keep speeds low.
12. Provide bike racks at several locations on important commercial blocks, and provide bike lockers or secure storage facilities at schools, apartment complexes and other residential and all-day destinations.
13. Develop bicycle support on all important roadways. Bicycling is central and key to personal health and to reducing single occupant travel.