Healthy Communities:

A Resource Guide for Delaware Municipalities

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Preface

As the Director of the Institute for Public Administration (IPA) at the University of Delaware, I am pleased to provide *Healthy Communities: A Resource Guide for Delaware Municipalities*. Preparation of the resource guide is part of a larger project, the University of Delaware's Healthy/Walkable Communities initiative, which is an ongoing collaboration between the University's Department of Health, Nutrition, & Exercise Sciences (DHNES) and IPA. Funding for this project was provided by the Delaware Division of Public Health through a contract with DHNES. DHNES Professor Michael Peterson served as Principal Investigator for this project, while IPA Assistant Director Eric Jacobson and Associate Policy Scientist Marcia Scott served as project managers for production of the resource guide.

Walkable communities result from careful planning and community design that provides active living opportunities. The resource guide shows how improving the walkability of a community can lead to environmental, health, and economic benefits.   The guide stresses that community leaders can catalyze changes by communicating a compelling vision, identifying and mobilizing stakeholders, nurturing strategic partnerships, and building consensus. With broad-based participation and support, public policies and plans can be developed and implemented for a pedestrian-friendly community. The guide offers strategic tools to develop these policies and plans, provides tips for writing a funding proposal, and lists technical assistance and funding resources. Finally, the resource guide provides examples of recreation programming to promote awareness and use of pedestrian-friendly infrastructure, showcases examples of walkable municipalities in Delaware, and highlights outcomes of the University of Delaware's Healthy/Walkable Communities Initiative.

I hope that Delaware municipalities will use the resource guide to improve the walkability of their communities and, in doing so, improve the health of their residents through greater opportunities for routine physical activity.

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Introduction

Why Are Communities Less Walkable?

Before there was a car in every driveway and a gas station on every corner, before Henry Ford brought the horseless carriage to the masses, traditional towns and cities were created on a human scale. Walking was the practical transportation mode of choice for most Americans, and compact, mixed-use development in towns and cities enabled most business and leisure trips to be made on foot. Average people seeking a functional fitness level didn't need to hit the gym when physical activity was folded into the rhythm of their daily lives.

In the era of suburbanization, however, the car is king. The ability to travel great distances quickly has enabled a land-use pattern in many places that presumes everyone has a car—and wants to use it. Today's families have largely inherited a "USA" that can only be seen "by Chevrolet," as the old jingle goes, with the exception of older, core population centers and some forward-thinking new developments. The ubiquitous television and computer have aided and abetted this lifestyle conversion, as today's children often find entertainment indoors and parents fear for the safety of their children if they venture out on foot or bicycle. Today, many families must load into a SUV, drive for miles, and pay steep prices for the privilege of physical activity!

What Are the Consequences and Benefits?

It is no secret that Americans of all ages are less healthy and less active than our ancestors and even our contemporaries in many other industrialized nations. News accounts warn of obese children and a generation that, for the first time ever, could fail to reach the average life expectancy of their parents due to chronic and preventable diseases. Public health efforts have turned the spotlight on how the places we live affect the way we live. "The question has arisen of whether decentralized and largely automobile-dependent development patterns…are contributing to the increasingly sedentary lifestyles of the U.S. population" (Committee on Physical Activity, Health, Transportation and Land Use, vii).

Walking is one of the easiest ways to maintain functional fitness. The Surgeon General advises that 30 minutes of walking five days a week will significantly reduce adult risk of developing a host of diseases ranging from cancer to depression. The CDC recommends that children and adolescents get twice that amount of activity daily. Ideally, families and friends can bridge generational gaps to walk together, with a host of side benefits (social interaction, mental stimulation, exposure to environmental amenities, and more). Research even indicates that when drivers see many pedestrians in an area, they are more likely to slow down and drive safely than when they have the perception of a "neighborhood expressway."

How Can the Physical Environment Impact Walkability?

The way a community is designed, built, and maintained determines its walkability. The average citizen who has little knowledge of the principles of land use, transportation, and architectural design certainly feels their effects, even subconsciously. Think of a place where you've felt comfortable walking, then think of another place that felt uncomfortable or even dangerous. The right environment can attract pedestrians just as the wrong one deters anyone who has a choice or alternative mode of transportation. The University of Delaware Institute for Public Administration (IPA) Planning Services Group has organized the "walkability" of an area into three components under a user-friendly concept called NED.

Network

Sidewalks, crosswalks, and direct pathways create the "roadway" of pedestrian and bicycle access from Point A to Point B. The location, quality, safety, and state of repair of such facilities make mobility possible.

Environment

Aesthetics, security, buildings, and landscaping create an inviting environment for walking. The pathway is properly lit, clean, safe and attractive. Features along the path, such as historic, environmental, or cultural amenities, make the journey interesting.

Destinations

Having a place to go is the most important part of walking! Even for pleasure (rather than functional) trips, people like to have a defined starting and ending point. Providing pathways between major gathering locations, such as schools, libraries, shopping areas, and neighborhoods, is vital to bringing more people out of their vehicles and onto sidewalks and pathways.

How Can Communities Become More Walkable?

In a previous report, *Healthy and Walkable Communities*, published by IPA in July 2007, examples were provided of many efforts by local communities becoming more walkable. They range from the design of physical infrastructure to the promotion of public programs. This resource guide is intended to carry that work forward by providing information and opportunities for local communities, large, small, and in-between, to seek help in becoming more walkable and healthier. We urge you to find those solutions that best fit your unique community and build partnerships with others who can provide leadership, manpower, ideas, and funding for your carefully targeted efforts. The work may not be easy, but the results can be highly rewarding.

Purpose of the Healthy Communities Resource Guide

Healthy Communities: A Resource Guide for Delaware Municipalities was developed to show how improving the walkability of a community can lead to environmental, health, and economic benefits.   To catalyze changes in policies and plans, community leaders need to communicate a compelling vision, identify and mobilize stakeholders, engage community members, nurture strategic partnerships, and build consensus. With broad-based participation and support, community leaders can advocate public policies and plans for a pedestrian-friendly community. The resource guide offers strategic tools to develop these policies and plans, provides tips for writing a funding proposal, and lists technical assistance and funding resources. Finally, the resource guide provides examples of recreation programming to promote awareness and use of pedestrian-friendly infrastructure, case studies of walkable towns in Delaware, and UD's Healthy/Walkable Communities Initiative.

Community Assets of Walkability

Towns that invest in public space improvements to create attractive and walkable environments reap a variety of community benefits. Whether by converting an old railroad corridor into a rail-trail, developing a greenway along a riverfront, designing streets in a grid-like network, increasing the pedestrian-friendliness of the central business district, or encouraging mixed-use redevelopment, there are many ways for a town to improve its walkability and enjoy a big return on investment. Some gains are more obvious than others, and often people are only aware of the recreational benefit of a pedestrian facility, such as a trail or greenway ("Rails-to-Trails"). However, many strategies and tactics that improve the walkability of a town also contribute to the town's character and economic vitality. When people live in an environment where infrastructure fosters a pedestrian environment and walking to residential, business, and retail areas is convenient and attractive, the community builds a distinct identity and competitive advantage.   Understanding the extensive nature of walkability assets, especially economic benefits, helps justify the dedication of a larger allocation of transportation funds to walking (Litman, 10). Many municipalities are realizing that public investment can spur private investment and development. The concept of a "trail town" showcases how small town centers of commerce for bikers, hikers, tourists, and residents have created a positive economic impact in western Pennsylvania.

Varied Benefits

The varied benefits to the community from walkability can be broken down into essentially three categories: protected environmental resources, greater livability, and economic gains. Within each category, several kinds of benefits illustrate the return from investing in walkability. It is important to keep in mind that although divided thus, each benefit is linked to all others in a sort of web, and to explain one benefit is to touch upon the rest.

Protected Environmental Resources

Perhaps the most visible benefit is the protection of environmental resources, which can be seen in open spaces for recreation, a more attractive cityscape or downtown area, and in the harmony between nature and humans.

The recreational opportunities created from walkability practices are clear and most acknowledged. For example, a trail system established on preserved open space attracts residents to play and exercise ("Virginia Greenways," 12). When the environment is protected and made accessible for pedestrians and bicyclists, the community benefits from a natural recreation facility.

A community that is a good steward of the environment will benefit from a more natural and, therefore, more attractive cityscape. Planting trees along sidewalks and downtown, or keeping natural buffers between pedestrians and cars, enhances the aesthetics of a town.

Towns that place a priority on designing and implementing walkable infrastructure have natural harmony and control human impact on the environment. For instance, mixed-use developments enable residents to eliminate long, stressful drive times and enjoy decreased gas consumption because workplaces, homes, and services are close together. Communities are also realizing that infill development, building where there is existing infrastructure, is less costly than extending a town's infrastructure (e.g., roads, sewers, and utilities) into fringe areas. These smart growth practices, which reduce sprawl and direct development to growth-designated areas, preserve open space, reduce traffic congestion, and protect the environment. Another environmentally friendly practice is connecting trails and greenways to create "linear greenspaces" that "preserve important natural landscapes, provide needed links between fragmented habitats, and offer tremendous opportunities for protecting plant and animal species" ("Rails-to-Trails"). In addition to a cleaner and preserved environment, walkability practices can also protect against costly natural disasters. Flood control can be maintained by leaving the flooding fringe of a river undeveloped and delineated by a greenway ("Virginia Greenways," 11).

Greater Livability

Livability is the quality of life experienced by a member of a community and affected by a sense of belonging to a unique town, one's health condition, and chances to enjoy public amenities. Walkability improvements play a key role in place-making, which is creating a sense of community identity and unity. Pro-pedestrian policies can provide access to and links between historical sites, which can enhance a town's unique character and build stronger, more vibrant communities ("Rail-to-Trails"). Designing unique structures that are compatible with the character of a community (e.g., streetscapes, park facilities and trails, and public spaces) can be a source of pride and distinctiveness. For example, a historic rail station or town square may be revitalized to create a tangible link to a town's history, yet also be designed to meet the mobility and transportation needs of both residents and visitors. Contributing to community unity is interaction between neighbors, something that occurs far less often in auto-dependent communities (Litman, 5). High pedestrian activity on streets—"vigilance," so to speak—also is an important factor in decreasing criminal activity, which is detrimental to any community's sense of place and unity.

Because suburbs have been designed with an orientation toward cars and fewer opportunities to walk, obesity has been on the rise. Obesity is associated with many health problems such as heart disease, stroke, diabetes, arthritis, depression, and some types of cancer. Obesity is the result of a sedentary lifestyle, and it can be overcome with adequate physical activity. Walking is a great way to maintain the level of recommended daily physical activity of thirty minutes and does not require any special talents ("Overweight and Obesity"). Communities that plan

attractive, safe, and well-maintained, pedestrian-oriented infrastructure can foster social, civic, and physical activity. Another related aspect of healthy living that communities may consider when planning is providing access to healthy foods. Jurisdictions may designate open space for community gardens. Zoning regulations should allow access to healthy-food retailers (e.g., supermarkets, produce vendors, and farmers' markets).

As a mode of transportation, walking helps provide transportation equity within a community. Pedestrian-oriented facilities and transportation provides accessibility and mobility to zero-car populations or individuals who do not own or who lack access to automobiles (Litman, 7). Walkable infrastructure should be planned and designed to be barrier-free and accommodate persons of all ages and abilities. The concept of universal design once focused on providing equal access to those with disabilities. In recent years, this concept is being applied to the design of places and products that are usable by and desirable to a broad range of people, including people with disabilities and other often overlooked groups. The illustration below

Pedestrian Facility Elements
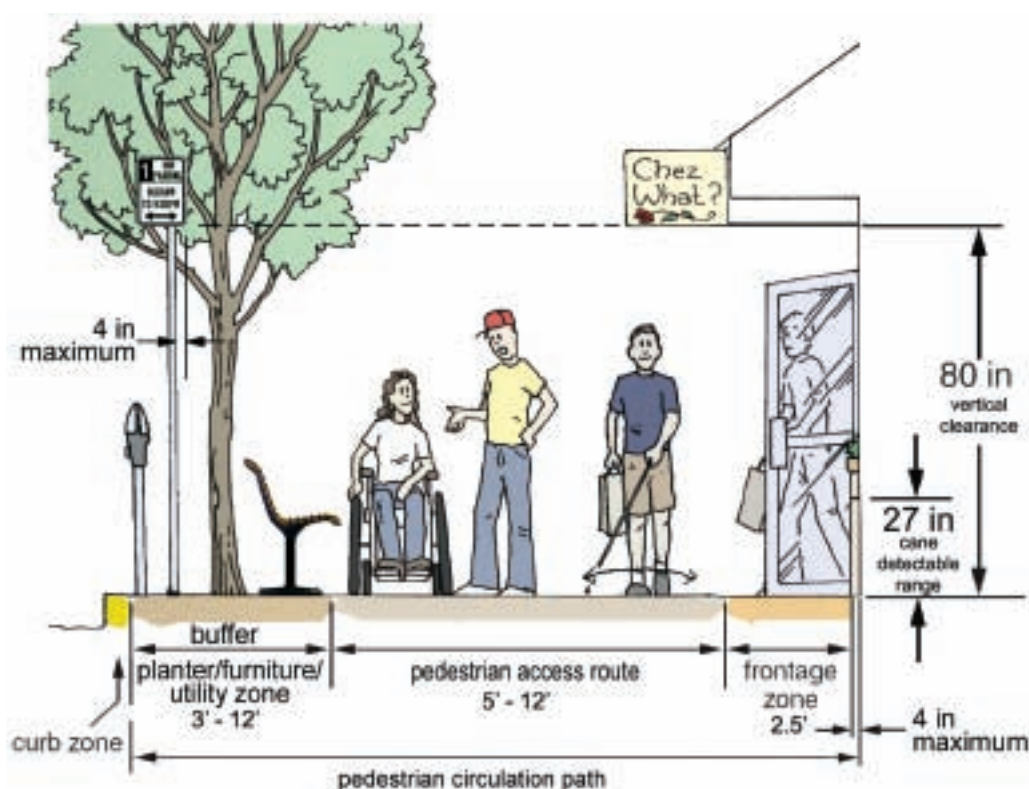
Source: Delaware Department of Transportation. Phase I: Policy Analysis - Delaware Statewide Pedestrian Action Plan. July 2007. www.deldot.gov/information/projects/bike_and_ped/delaware_ped/pdfs/DE_Ped_Action_Plan.pdf. 18 April 2008.

The zone system divides the sidewalk corridor into four zones to ensure that pedestrians have a sufficient amount of clear space to travel.

Zone	Min. Width
Curb	6 in.
Planter/Furniture/Utility	24 in., 48 in. if planted
Pedestrian Access Route	60 in.
Frontage	30 in.
Total Sidewalk Corridor	10 ft. – 12 ft.

depits pedestrian facility elements to enhance walkability of a community and the concept of universal design.

Economic Benefits of Walkability

There is a clear connection between walkable environments and the economic viability of a town. Designing neighborhoods, downtown streetscapes, recreation facilities, trails, and share-used paths so they are pedestrian-friendly can be a good investment. Walkable design can help revitalize central business districts, increase private investment, lead to higher property values, promote tourism, and support the development of a good business climate.

Because businesses recognize that shoppers value a positive pedestrian experience when shopping, commercial activity gravitates toward walkable places. Hence, walkability improvements (e.g., visually attractive streetscapes, interesting light fixtures, and traffic-calming measures) on a town's "Main Street" can jolt economic development (Litman, 6).   Towns that have gathering places at the heart of their community can provide functional open space as well as create visual appeal. In addition, design elements of a downtown—the streetscape, style of buildings, sidewalk pavers, signs, and infrastructure—contribute to a town's character and historic preservation. Walkable communities attract smaller, decentralized businesses that are characteristic of the new economy. These knowledge-driven, service-oriented "new economy" firms seek downtown business locations that promote social interaction, accessibility, and networking (Local Government Commission, 2).

There is a growing demand for properties in walkable communities. Residential and commercial property owners seek convenience and mobility opportunities of pedestrian-friendly developments versus grid-locked, auto-dependent areas ("Economic Benefits"). Property values are often higher in walkable communities.   A study by the Urban Land Institute determined that homebuyers were more willing to pay a premium price for homes in pedestrian-friendly communities that featured interconnected, narrow streets with sidewalks, development with a mix of land uses, tree-lined streets, short front yard set-backs, and rear garages accessed by alleys. Another study found that reducing traffic noise, traffic speeds, and vehicle-generated air pollution greatly increased property values in residential areas (Local Government Commission, 1).

In addition, walkable communities that are more compact and dense generally have a lower tax burden than development in more remote areas of a community. It is more cost-effective for a local government to direct investment to areas where growth or redevelopment is desired rather than use taxpayer dollars for new infrastructure. According to the Smart Growth Network, strategic public investments can deliver multiple benefits such as "new or renovated buildings, new amenities, an increased tax base, and a lively downtown to attract visitors and residents" (Smart Growth Network, 9).

Walkable towns are an enticement for tourism. "Communities and their downtowns that are walkable are capturing a greater share of tourist dollars…" ("Economic Benefits"). Visitors are also interested in eco-, heritage-, recreation-, and trail-based tourism; walkability practices can support all these interests. Once tourists come, they spend their money on related commodities such as meals, public transit, lodging, and souvenirs ("Virginia Greenways"). Walking saves travelers money otherwise spent on vehicular travel; saved money is available for spending that stimulates the local economy (Litman, 6). Economic development strategies can be built from the tourism industry and serve both the needs of the business community and visitors.

Trail Towns

The Trail Town Program is an example of an economic development initiative along the Great Allegheny Passage, a 150-mile rail-turned-trail connecting Pittsburgh, Pennsylvania, to Cumberland, Maryland. The Trail Town concept was developed by the Allegheny Trail Alliance (ATA), a coalition of seven trail organizations in southwestern Pennsylvania and western Maryland to realize the economic potential of the Great Allegheny Passage. Together with the Progress Fund, which now operates the Trail Town Program, ATA envisioned the Trail Town Program as "a corridor of revitalized trailside communities along the Great Allegheny Passage that reap the economic benefits of trail-based tourism and recreation as part of a larger, coordinated approach to regional economic development" ("Who We Are"). The goals of the program are to:

 • Retain existing businesses.
 • Expand and increase revenues of existing businesses.
 • Recruit sustainable businesses.
 • Adopt the Trail Town vision and integrate its concept of a visitor-friendly environment in community planning.

Trail Towns connect trails and towns along the Great Alleghany Passage. The Trail Town Program serves as an engine for economic development by capitalizing on the trail user market and marketing small towns as centers of commerce and tourism. These towns provide direct access to the trail system and essential services that rail users and tourists need such as shops, restaurants, and lodging. A trail town has an exceptional opportunity to revitalize its central commercial district by implementing the "Main Street Approach" program developed by The National Main Street Center ("Trail Towns," 7). Trail users will find the community accommodating, hospitable, and with a "trail-friendly" personality ("Trail Towns," 6). This is to say that the trail becomes an integral part of the town's sense of identity. A town, therefore, can gain big economically and create a greater sense of place from trail-oriented improvements.

Identifying Stakeholders and Strategic Partners to Catalyze Change

While the benefits of a more walkable community are clear, a more difficult task is to obtain consensus on how and what should be done to achieve a safer, more accessible, and more attractive atmosphere for pedestrians. A comprehensive approach is needed to improve the pedestrian environment. How can a community join forces to address pedestrian issues and problems? How should a community decide whether improvements are needed and what solutions should be implemented? The next section discusses how to develop broad-based support for a healthy living initiative, identify stakeholders, strategic partnerships, an advisory committee, and policies and plans for a pedestrian-friendly community.

Stakeholder Identification and Analysis

In order to determine who will be impacted by the proposed planning effort or walkability project, stakeholders need to be identified. In other words, who will be most affected by the planning effort or walkability project? Stakeholders are those individuals who have either a negative or positive stake in the success of the project. A list needs to be made of all external stakeholders from the community at large as well as internal stakeholders, who are generally representatives of the entity involved in the planning process. To determine the most appropriate forum to assemble stakeholders, core values or beliefs held by stakeholders need to be assessed to anticipate possible reactions to proposed plans and balance the diverse needs of community members (ICMA and NLC, p. 53 - 55).

Stakeholders should be involved in and throughout an effort to improve the walkability of the community. Identifying and engaging the right people in a community process or project can be the difference between a project's success and failure. Stakeholders can be either individuals or groups of people that:

- Will be impacted by development of policies or plans to enhance walkability.
- Have information, experience, or insight to develop policies or plans.
- Have power or a position of leadership to either support or block progress of policies/plans.
- Have a vested interest in the outcomes.
- Are final decision makers or people who must approve the plan.
- May support or impede implementation of policies/plans.
- Have been champions or critics of your work in the past (or perhaps both).
- Are considered visionary thinkers.
- Can win consensus within a group setting.

Powerful stakeholders will help build consensus for project support, leverage resources, and influence or engage others. Stakeholders may include citizens, civic associations, elected officials, municipal employees, planning and transportation officials, the business community, property owners, homeowner associations, public health officials, educators, schools and students, environmentalists, historical committees, scouts, faith-based organizations, chambers of commerce, tourist bureaus, bicycle and trail organizations, and design professionals including transportation engineers/planners, engineers, landscape architects, architects, land-use planners, or other design professionals.

Strategic Partnerships

Strategic partnerships are also critical for generating support, expertise, resources, and volunteers to address active living initiatives of a community. Public agencies, institutions of higher learning, civic associations, school districts, local governments, state and county health departments, fitness organizations, philanthropic foundations, nonprofit service or health organizations, medical associations, and corporations may actively collaborate on fundraising, facility design, or programming initiatives to accomplish what no single municipality or organization can. The checklist below can be used as a guide to establish strategic partnerships.

Identify Potential Partners

Brainstorm a list of potential partners including organizations, companies, or groups that are stakeholders in the community. Try not to limit the list at first, the longer the list, the better the chance for creating successful partnerships. Think about organizations or companies whose mission is similar to what has been established for this project.

Determine the Expected Gain from the Partnership

Create measurable goals and objectives for evaluating the partnership. Keep a running list of these goals and objectives in case changes need to be made along the way.

Meet with Potential Partners

Explain the project to potential partners with enough detail to give them an idea of what is to be expected, but allow them to make suggestions and changes based on their needs as well. Ask each partner what they expect to gain from the partnership and select the group whose expectation is similar to the one created by the task force.

Decide Roles and Responsibilities

Clearly outline each group's roles and responsibilities for the project in writing. Include

resources that each group will contribute (e.g., money, staff, technology, training, information and contacts) (Abele, 2003).

The Amherst H. Wilder Foundation has conducted extensive research on successful collaborations. The foundation has identified twenty factors influencing collaboration success, which have been adapted and incorporated into the following checklist. Factors that contribute to the success of a partnership include (Winer and Ray):

Environmental Factors
- Potential partner has a history of collaboration or cooperation.
- Collaborative group is respected as a community leader.
- Political and social climate is favorable to forming a partnership.

Membership Characteristic Factors
- Group exhibits mutual respect, understanding, and trust.
- Partnership has an appropriate cross section of members.
- Members see collaboration benefit their self-interest.
- Organizations have ability to compromise.

Process and Structure Factors
- Members share a stake in both process and outcome.
- Multiple layers of participation and participation are present.
- Process and structure are flexible.
- Clear roles and policy guidelines are in place.
- Process and structure is adaptable.
- Group supports an appropriate pace of development.

Communication Factors
- Partners exhibit open and frequent communication.
- Relationships and communication links are established.

Purpose Factors
- Partnership has concrete, attainable goals and objectives.
- Partners have a shared vision.
- Partnership will serve a unique purpose in the community.

Resources Factors
- Sufficient funds, staff, materials, and time are available to sustain the partnership.
- Partnership provides skilled leadership.

Role of an Advisory Committee

A task force or an advisory committee may be formed by a local government to convene citizens, stakeholders, and other representatives to develop a vision for a more walkable community and policies, plans, and programs to accomplish that vision. An advisory committee can provide unique local perspectives on diverse community interests, needs, and

priorities. An advisory committee should be comprised of stakeholders, or those individuals who have an interest in making changes to policies and the built environment through the construction of trails, sidewalks, roadway improvements, and/or site design improvements to enhance walkability. Start small, involve both internal and external stakeholders who can help build consensus for the project's vision and who are key informants in the community. Successful advisory committees or task forces require leadership, commitment, and communication. Roles, responsibilities, and evaluation criteria need to be agreed upon and determined for each task force member. Determine how to keep channels of communication open and how conflicts will be resolved to minimize potential problems (Abele, 2003 and Pennsylvania Greenways, 2001).

Process to Develop Policies and Plans

To develop strategic tools, such as public policies or plans to create change, a community first needs to examine how the physical environment impacts walkability of the community. A walkability audit or assessment of a community's walkable environment can help provide a general understanding of where pedestrian problems and issues exist. The process for collecting this data and conducting environmental assessments is described in detail in the "Planning a Pedestrian-Friendly Community," section of this resource guide. Once data is collected, opportunities and constraints are evaluated, and a future vision is developed, strategic partners and community coalitions can work to catalyze changes in policies, practices, and plans to improve the health and physical activity of a community. Policy making and planning will provide comprehensive solutions to improve the built environment, which will enhance opportunities for walking as both a transportation mode and recreational activity. Throughout the process to make a community more pedestrian-friendly, committed leadership and active public involvement is needed. Community, political, and institutional leadership is needed to develop a unified vision for the community that can be achieved through policy making and planning. Broad, grassroots support will help build consensus and community support for policies and plans that need to be developed and ultimately adopted.

Policy Initiatives for Walkable Communities

As it becomes widely accepted that a long history of car-oriented community design has contributed to many of America's health problems, especially obesity, more policy initiatives are aiming to promote pedestrian-friendly communities. This trend recognizes that a community's walkable atmosphere is greatly impacted by its official policies, which in the past have led to a sedentary lifestyle, but an about-face can encourage physically active lifestyles. This section takes a closer look at these initiatives and how their goals for healthy communities can become part of the legal fabric of local government.

Progressive initiatives at the national, state, and local levels seek changes in public policy to support healthier communities by making them more walkable and bikeable. The goal is for physical activity to become an integral part of people's daily routine, whether that means biking to work, walking to school, or hiking on a trail for pleasure. It is important to note that the concerted effort among governments and various organizations to implement these policies allow communities to compete for transportation funding or other grants that will otherwise go to enterprises that reinforce an inactive mode of living (Squires).

Policy Initiatives at the National Level

Notable organizations at the national level are contributing valuable counsel to the discussion of policy support for walkable communities. Walkable is a generic description of communities whose overall atmosphere—which includes both physical elements (e.g., infrastructure) and non-physical elements (e.g., programs)—encourages inhabitants to be physically active on a regular basis.

Leadership for Healthy Communities

One important organization envisioning more walkable communities through policy efforts is Leadership for Healthy Communities. The organization, a Robert Wood Johnson Foundation program, explains that it "supports state and local policy leaders in efforts to create healthier communities by promoting policies and programs that will…increase opportunities for safe physical activity" ("LHC Homepage").

Although the organization is primarily concerned with reducing obesity among children, according to its mission statement, its goal to inform leaders about policies that support walkable communities has health benefits for people of all ages and conditions ("LHC Overview"). A recent publication from the organization lists nine strategies for a more "activity-friendly" community (Increasing Active Living, 5-6):

- Establish collaboration between public-sector departments and coordinate efforts among sectors.
- Encourage school facilities and policies that promote active living.
- Improve streets, sidewalks and street-crossings for safer routes to school.
- Support safe, pedestrian-oriented transportation.
- Support active living land-use planning and development.
- Identify and create funding sources for active living initiatives.
- Publicize the availability of active living resources in the community.
- Support parks, trails and recreation facilities.
- Create incentives to support active living in workplaces, communities, and households.

These strategies recommend ways local government leaders can implement a walkability agenda. This is a comprehensive approach that acknowledges the need to find sources of funding as well as to promulgate the community's walkable features. It is not a matter of simply making the built environment more pedestrian-friendly. Collaboration among different stakeholders, community involvement, incentive creation, and campaigns in schools all contribute to increased active living among citizens of all ages.

National Conference of State Legislatures

Another prominent national organization is the National Conference of State Legislatures (NCSL), a bipartisan organization founded in 1975 that "provides research, technical assistance and opportunities for policymakers to exchange ideas on the most pressing state issues" ("About NCSL"). One significant issue that states face is how to make their communities healthier. The organization assists policymakers with its research on healthy community design, particularly regarding land use. It lists the following land-use policies as ways to encourage active lifestyles ("Healthy Community Design"):

- Mixed-use development
- Transit-oriented development
- Brownfield redevelopment
- Urban infill
- Parks, recreation, and trails
- School siting

Smart Growth Network

As communities develop and grow, there comes a realization that uncontrolled growth can negatively impact citizens' quality of life (Getting to Smart Growth, i). By 1996, a coalition of national organizations established itself as the Smart Growth Network to promote its solution to haphazard growth. The member groups all adhere to the idea of "smart growth" (Getting to Smart Growth, i):

Smart growth makes it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.

The Smart Growth Network, upon analyzing the practices of ideal communities to live in, endorses the following ten principal actions (Getting to Smart Growth, i-ii):

- **Mixed land uses** – Placing homes, schools, businesses, and other community facilities in close proximity creates a setting conducive to shopping, interacting with neighbors, and walking (Getting to Smart Growth, 1).
- **Take advantage of compact building design** – Maximizing compact building to preserve land for parks, trails, and farmland; raising the demand for public transportation, which reduces the number of cars on the road (Getting to Smart Growth, 10).
- **Create a range of housing opportunities and choices** – Offering a variety of housing types invites all people to find shelter in the same residential area, establishing a diverse and vibrant community (Getting to Smart Growth, 18).
- **Create walkable communities** – Making walking an attractive travel option has positive impacts on the environment, economic activity, and residents' physical health (Getting to Smart Growth, 26).
- **Foster distinctive, attractive communities with a strong sense of place** – Ensuring that new growth reflects its values and unique character maintains a community's togetherness by upholding a common sense of identity among inhabitants (Getting to Smart Growth, 33-34).
- **Preserve open space, farmland, natural beauty, and critical environmental areas** – Preserving open spaces provides people with opportunities to enjoy nature while being physically active; encourages growth to take place in areas already with supporting infrastructure; and stimulates the economy through tourism and by attracting businesses (Getting to Smart Growth, 43-44).
- **Strengthen and direct development toward existing communities** – Directing growth toward established community areas results in the preservation of open space, thus protecting the environment and improving air quality; takes advantage of existing infrastructure; and increases the community's density, which in turn raises the demand for public transportation, strengthens the tax base, and promotes walking (Getting to Smart Growth, 52).
- **Provide a variety of transportation options** – Providing different transportation opportunities combats the growing problem of traffic congestion and induces people to use their cars less (Getting to Smart Growth, 61-62).
- **Make development decisions predictable, fair, and cost effective** – Improving the approval process for development projects that support smart growth attracts developers to apply smart growth principles (Getting to Smart Growth, 70).
- **Encourage community and stakeholder collaboration in development decisions** –

Letting the community and all stakeholders participate in development decisions gives everyone a chance to take ownership of a development project that they will support (Getting to Smart Growth, 78).

The Smart Growth Network also gives hundreds of policy examples for implementing the above ten principles. Some of these actions, which specifically focus on pedestrian-friendly communities, include (Getting to Smart Growth II, 32-38):

- Developing a pedestrian master plan.
- Designing communities so that children can walk to school.
- Using trees and other green infrastructure to provide shelter, beauty, urban heat reduction, and separation from automobile traffic.
- Encouraging safe pedestrian routes to transit.
- Developing walking awareness and promotion programs.
- Using modern technology to increase pedestrian safety.
- Using visual cues and design elements to indicate pedestrian rights of way and minimize conflicts.
- Situating parking to enhance the pedestrian environment and facilitate access between destinations.
- Making places walkable for aging populations in response to new demographics and special needs.
- Retrofitting superblocks and cul-de-sac street networks.

Complete Streets

Nationally, many streets are considered incomplete because they lack connectivity and the safe integration of infrastructure for non-motorists such as sidewalks, bike lanes, transit amenities, and safe crosswalks. Conventional streets, which rely on local streets leading to collector arterials, have been designed with only one type of user in mind, the driver ("Complete Streets Help Keep Kids Safe!" 1). In contrast, traditional streets are considered to be more pedestrian-friendly. Traditional streets are designed with shorter, connected blocks and are connected through grid-like patterns. A national movement, headed by the National Complete Streets Coalition, is urging local and state governments to develop and adopt policies to "complete the streets" ("How to Get Complete Streets"). Emphasis is placed on improving the streets for multiple users, including pedestrians and bicyclists. The coalition has worked out a list of policies, supporting the complete streets movement, which should be placed on local and state governments' public policy agendas ("About the Coalition"). To promote complete streets, state and local officials can improve the built environment by adopting policies that ("Elements of Complete Streets"):

- Ensure that streets and roads are designed for all users of all ages and abilities, including pedestrians, bicyclists, transit riders, and motorists.

- Promote street designs that provide a comprehensive, integrated, and connected network and incorporate features such as narrow travel lanes, sidewalks and bulb-outs, bike lanes, wide shoulders, medians, bus lanes and curb cuts, delineated crosswalks, and audible pedestrian signals.
- Require that transportation agencies design roadways and rights-of-way that safely accommodate both automotive and non-motorized vehicle users.
- Integrate sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of built environments.

One important benefit of complete streets is the need for children to get to school safely. Under this initiative, roads leading to schools will have a continuous network of sidewalks and there will be traffic-calming measures in effect near schools. Complete streets policies will support Safe Routes to School (SRTS) programs being implemented throughout the country ("Complete Streets Help Keep Kids Safe!" 2). Complete streets can contribute to safer routes to school and provide children and their parents ways to explore healthier, non-motorized alternatives to driving or riding a school bus.

ADA Accessibility Assistance

The Americans with Disabilities Act (ADA) was passed into law to give civil rights protections and prohibit discrimination to individuals with disabilities with regard to public accommodations, employment, transportation, state and local government services, and telecommunications (DOJ, 1). ADA Title II requires that all state and local governments provide people with disabilities equal access to programs, services, and activities. Government entities are also required to follow specific design guidelines with respect to the construction or alteration of public facilities (DOJ, 3). Three organizations provide the best information and technical assistance on ADA accessibility issues. These are (Derry):

- **U.S. Department of State (DOJ)** – DOJ provides an ADA Technical Assistance Program with free up-to-date information about ADA and how to comply with its requirements. It also provides direct technical assistance through its website, information line, and downloadable publications.
  See: *www.ada.gov*
- **U.S. Access Board** – This federal agency is committed to providing information and resources on accessible design. In 1999, the Access Board created the Public Rights-of-Way Access Advisory Board (PROWAAC) to address issues impacting all people dealing with barriers to the built environment. ADA Accessibility Guidelines, issued through this agency, include supplements that provide technical assistance with the design of state and local facilities, play areas, and recreational facilities.
  See: *www.access-board.gov*
- **Disability and Business Technical Assistance Centers (DBTACs)** – These regional centers were established to provide training, information, and technical assistance on

ADA to businesses, schools, consumers, and state and local governments. A mid-Atlantic center provides assistance to states within the region, such as Delaware.
See: *www.adainfo.org*

National Trust Main Street Center

In the discussion of healthy communities, special attention is given to a town's central business district because it can be the center of pedestrian activity. The National Trust Main Street Center, a National Trust for Historic Preservation program, is renowned for its approach to revitalize a downtown with a view to pedestrian friendliness. This national program promotes a unique approach—the Main Street approach—to revive a central commercial district "through preservation and grassroots-based economic development" ("About the National Trust Main Street Center"). The organization has conceived this four-point approach to create an appealing, walkable environment that provides a sense of community and enhances the economic viability of a community's downtown. The four points are ("The Main Street Approach"):

- **Organization** – Creating a committee to get everyone working toward the same goal and securing financial resources for the program.
- **Promotion** – Advertising the downtown as a livable area and attractive place to invest.
- **Design** – Improving the built environment with special emphasis on pedestrian orientation and enhancing the downtown's unique characteristics, such as historic buildings and atmosphere.
- **Economic restructuring** – Bringing in appropriate businesses and more consumers and replacing vacant commercial sites with new commerce centers.

The state of Maryland has added a fifth point to its Main Street approach, "Clean, Safe, and Green," which seeks to "enhance the perception of a neighborhood through the principles of Smart Growth and sustainability" ("Main Street Maryland").

Delaware Main Street
Following suit, Delaware has adopted a Main Street program that adheres to the four principles of the Main Street Approach. So far, the program has eight Delaware towns as participating members. The City of Newark is a featured participant, whose Downtown Newark Partnership (DNP) can boast new events like *A Taste of Newark* and the gain of many additional businesses in the Main Street area ("About Us: What is the DNP"). Furthermore, through "economic stability, quality of place, and smart growth," the Delaware Main Street program promotes the Livable Delaware agenda, an important statewide initiative discussed in the following section ("Delaware Main Street").

Statewide Initiatives in Delaware

Livable Delaware Initiative

Governor Ruth Ann Minner unveiled a *Livable Delaware* agenda on March 22, 2001. Livable Delaware is a positive, proactive strategy that seeks to curb sprawl and direct growth to areas where the state, counties, and local governments are most prepared for it in terms of infrastructure investment and thoughtful planning. It builds on the foundation laid by the *Strategies for State Policies and Spending*, first approved in 1999 and comprehensively updated in 2004. Under the Livable Delaware agenda, the state provides assistance for local governments to support comprehensive land-use plans. It also better coordinates state agency planning, resource management, and investments in order to support growth where it is appropriate and planned for in order to discourage sprawl ("Gov. Ruth Ann Minner, Lt. Gov. John Carney Unveil 'Livable Delaware' Agenda to Control Growth"). Principles of Livable Delaware include:

- Guiding growth to areas that are most prepared for it in terms of infrastructure and thoughtful planning.
- Preserving farmland and open space.
- Promoting infill and redevelopment.
- Facilitating attractive, affordable housing.
- Protecting Delaware's quality of life while slowing sprawl.

Delaware Statewide Pedestrian Action Plan

As part of the implementation of the Livable Delaware Initiative, Executive Order Number 83 was adopted March 6, 2006, to create an Advisory Council on Walkability and Pedestrian Awareness. The Advisory Council was charged to assist the Delaware Department of Transportation (DelDOT) with the development, adoption, and implementation of a *Delaware Statewide Pedestrian Action Plan*. The executive order focuses on the need to address the following issues in order to make walking a viable transportation option ("Executive Order Number Eighty-Three"):

- Ensuring that paths and sidewalks are continuous and interconnected where feasible.
- Developing consistent design standards for crosswalks, sidewalks and pathways.
- Clarifying maintenance responsibility for sidewalks.
- Reviewing traffic rules and driver behavior to help support a safer pedestrian environment.
- Promoting land-use and traffic patterns that encourage walking and reduce air pollution.

The goal of the three-phase plan is to achieve the state's goal of "making walking central to personal fitness and mobility" (DelDOT, 43). Phase I of the Action Plan, a policy analysis

document, was completed in July 2007. This document examines federal requirements that support walkability and access; state sidewalk legislation, policies, regulations, and guidance; and sets forth a vision, goals, and recommendations to improve the walkability of a community. Based on identification of pedestrian concerns and issues, a vision statement for the plan was crafted that states the need to "improve the quality of life throughout Delaware by promoting safe and convenient pedestrian travel that enhances personal mobility, accessibility and fitness" (DelDOT, 43). To achieve this vision, four goals (followed by objectives and recommended actions for implementation) were set forth as follows, based on four key areas that emerged during the planning process (DelDOT, 44):

- Provide and promote pedestrian mobility, accessibility, and fitness.
- Revise and consolidate policies, plans, regulations, standards, and guidelines that ensure safe pedestrian access to all transportation facilities.
- Develop education programs and implementation strategies for pedestrian and other transportation facilities.
- Identify operation, maintenance, enhancement, and funding responsibilities for all pedestrian facilities.

Next steps involve implementation of preliminary Phase I recommendations, development of a Phase II Action Plan consistent with Federal Highway Administration (FHWA) guidelines, and a Phase III Implementation Plan (DelDOT, 52).

Better Models for Development in Delaware

Advancing the Livable Delaware agenda, The Conservative Fund has collaborated with the Livable Delaware Advisory Council's Community Design Subcommittee and the Office of State Planning Coordination to publish Better Models for Development in Delaware. The publication identifies six principles for better development (McMahon, 4):

- Conserve farmland, open space, and scenic resources.
- Maintain a clear edge between town and countryside.
- Build livable communities.
- Preserve historic resources.
- Respect local character in new construction.
- Reduce the impact of the car.

In the Governor's foreword, it is acknowledged that growth is inevitable; thus, it is important for communities to put into practice the models for better development in order to avoid hazardous growth—i.e., sprawl (McMahon, iv).

One way to combat leap-frog growth is to build livable communities. There is a growing demand among Delawareans to live in a "small town," a place with a unique personality,

attractive homes, and a healthy design that promotes walkability. Building these livable communities entails (McMahon, 48-67):

- **Designing livable neighborhoods** – To provide a mix of homes and various communal destinations, such as schools, shopping centers, and public open spaces.
- **Using the Main Street model** – To strengthen the downtown area, which is crucial to a town's vitality.
- **Remodeling commercial strips** – To move away from vehicle dependence and toward a pedestrian orientation.

Livable Neighborhoods

The "Governor's Guide to Livable Neighborhoods" is also part of the Livable Delaware initiative. Making neighborhoods more livable include policies that encourage active living and promote pedestrian-friendly design and multi-modal facilities. Active living can be done through the following ("Governor's Guide to Livable Neighborhoods"):

- Implementing traffic-calming measures, such as neighborhood signs, speed bumps, speed cushions, gateway features, pinch points, cycle lanes, and pedestrian crossings.
- Making communities bicycle friendly.
- Implementing the safe routes to school program, which may include a "walking school bus" program and participation in International Walk to School Day.
- Reducing automobile dependency by such measures as rideshare, telework, Commute Trip Reduction program, carpools, and vanpools.

The abovementioned initiatives, both national and statewide, come to ultimate fruition when they are implemented at the local level through comprehensive plans and town codes—the topic of the next section.

Making Walkability a Public Policy Agenda in Municipalities

This section examines how local government can address the need for a more walkable community through its public policy fabric. A "best practices" approach for incorporating the walkability agenda into municipal planning, policy, and law can be developed by taking a look at comprehensive plans and town ordinances throughout Delaware.

Comprehensive Plan

A comprehensive plan is an overview of where a community has been; where it is now; and where its future growth, development, and preservation should occur. The plan lends cohesiveness to a town's identity and provides direction for the future. Its significance cannot be overstated.

More than just a helpful guide, the comprehensive plan is a requirement for all local governments in Delaware, and it is treated as law. Delaware's state code requires municipalities to engage in comprehensive planning to encourage "the most appropriate uses of physical and fiscal resources of the municipality and the coordination of municipal growth, development, and infrastructure investment action with those of other municipalities, counties, and the state [...]" (Delaware Code, Title 22: §702, c). Once adopted, the comprehensive plan has the force of law and "no development shall be permitted except as consistent with the plan" (Delaware Code, Title 22: §702, d). The Delaware Code gives the plan much gravity as an important piece of a municipality's legal fabric.

The comprehensive plan is, at a minimum, a development strategy for the city or town, expressed in text and maps (Delaware Code, Title 22: §702, b). An official map legally establishes the location of existing and proposed public land and facilities, infrastructure, multi-use trails, parks, and open space. It also signals to landowners and developers where future locations of public improvements and investments will occur. Together, the maps and text provide the basis for developing land-use regulations that support the municipality's development strategy (Delaware Code, Title 22: §702, c). In addition, a comprehensive plan provides the basis for plans or future policies that promote walkability. Plans for trails, shared-use paths, sidewalks, and pedestrian access may be discussed in a number of sections of the comprehensive plan, including those related to land use, transportation and circulation, community facilities, and recreation. Bicycle and pedestrian mobility master plans may also be adopted as part of the town plan. Furthermore, policies regarding the construction of trails and paths by developers as part of the land development process may be addressed within the comprehensive plan and the ordinance updates that typically follow (Trail & Path Planning, 37). Finally, a comprehensive plan can recommend that a network of specific trails, sidewalks, paths,

or bikeways be established. Official maps within the comprehensive plan should delineate the municipal-wide pedestrian network, including the location of existing/proposed trail or path infrastructure, and future linkages and/or alignments (Trail and Path Planning, 43).

Because the plan is the foundation of municipal ordinances and future development, it must be consistent with the strategy it lays out. The comprehensive plan is the starting point for making walkability part of the town's legal agenda. Given its large scope, it can be a little daunting figuring out where and how to include the town's vision of a more walkable community. Table 1 illustrates best practices for the incorporation of walkable principles in the town comprehensive plan.

Table 1. Walkability Measures in Comprehensive Plans of Delaware Towns

Municipality, County	Plan's Adoption	Feature	Walkability Measure*	Location in Plan
Bethany Beach, Sussex	Updated 2005	Community Goal Statement	**To construct and maintain adequate, safe bicycle and pedestrian ways along major streets.**	Chapter 1.3
Bridgeville, Sussex	Approved 2002	Public Participation	**When considered along with the favorable results to sidewalk questions throughout the survey, it clearly appears that Bridgeville residents value pedestrian connections.**	Chapter 1.4
Clayton, Kent	Updated 2002	List of Accomplish-ments	**Requirement for dedication of land for recreation or payment of a fee in lieu of land dedication incorporated in new Subdivision Regulations adopted June 12, 1999.**	Plan Review
Elsmere, New Castle	Adopted 2004	Open Space and Recreation Plan	**Be known as a town you may walk around with walking trails and a shopping district.**	Chapter 5.2
Middletown, New Castle	Adopted 2005	Principles for Better Development	**This plan recommends that the town continue to enhance its open-space-preservation efforts by requiring that a certain percentage of dedicated open space is maintained in its natural state.**	Chapter 2.5
Townsend, New Castle	Adopted 2003	Pedestrian and Bicycle Circulation	**Protect generators of pedestrian traffic, such as schools and playgrounds, from through vehicular traffic.**	Appendix A

Quoted as it appears in the Comprehensive Plan

Zoning Ordinance

The zoning ordinance is an important regulatory tool for implementing the comprehensive plan (Hoch, 343). The ordinance divides the land under its jurisdiction into different zones, each one according to its current or intended character, and controls the built environment to maintain each zone's desired character. The built environment in a given zone is regulated by "specifying the permitted uses of land and buildings, the intensity or density of such uses, and the bulk (size) of buildings on the land" (Hoch, 343-344).

The Delaware Code permits a municipal government to adopt a zoning code, "in accordance with a comprehensive plan and designed to lessen congestion in the streets, to secure safety from fire, panic and other dangers, to promote health and the general welfare, to provide adequate light and air, to prevent the overcrowding of land, to avoid undue concentration of population, to facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements" (Delaware Code, Title 22: §303). Since trails, sidewalks, paths, bikeways, parks, and pedestrian network infrastructure are designed to promote the health and general welfare of municipal residents, they can be regulated within a municipality's zoning ordinance.

Currently, there is no template to address a pedestrian network or trail system within a zoning code. However, trails and paths can be addressed in zoning similar to provisions for common open space, sidewalks, or parks. Zoning code provisions may be used to specify where trails and paths should be constructed, how trail/path construction and dedication may be regulated within the land development process, descriptions and definitions of trail and path systems or networks, and the need to link trails and paths to a comprehensive pedestrian circulation system or network (Trail and Path Planning, 61 - 67).

Table 2 (next page) illustrates some examples of pro-pedestrian provisions found in the zoning codes of New Castle, Kent, and Sussex Counties.

Table 2. Walkability Provisions in Zoning Ordinances of Counties in Delaware

Section Title	Pedestrian-Friendly Feature	Provision*	Location
New Castle County			
Commercial, Neighborhood District	Limitation on Strip Commercial Development	**Size and spacing of this district is regulated to ensure this district does not promote strip commercial development that serves highway traffic or regional uses.**	§40.02.231, C
Sidewalks	Pedestrian Access	**The Department shall have the right to require additional sidewalks, bicycle/pedestrian ways where necessary to provide safe, direct, and otherwise adequate pedestrian access to surrounding neighborhoods, open spaces and public facilities.**	§40.21.162, C
Sidewalk Construction Standards	Buffer Between Street and Sidewalk for Pedestrian Safety and Aesthetics	**A minimum five (5) foot wide planting or landscape strip shall be provided between back of curb and front edge of sidewalk along all arterial and collector streets and where deemed appropriate by the Department.**	§40.21.163, A
Kent County			
Purpose and Intent	Preserving Community Character	**Be known as a town you may walk around with walking trails and a shopping district.**	§187-90.1, A [5]
Pedestrian Amenities	Sidewalks Requirement	**This plan recommends that the town continue to enhance its open-space-preservation efforts by requiring that a certain percentage of dedicated open space is maintained in its natural state.**	§187-90.1, H [2, a]
Non-Residential Uses	Mixed Uses	**Protect generators of pedestrian traffic, such as schools and playgrounds, from through vehicular traffic.**	§187-90.1, H [5, b]
Sussex County			
Signs	Pedestrian Safety	**No "projecting sign" shall be permitted that obstructs or interferes or in any way becomes a hazard to the orderly movement of pedestrian and/or vehicular traffic.**	Article XXI. §115-157, C
Environmentally Sensitive Development District Overlay Zone	Greenway Design Considerations for Pedestrians and Bicyclists	**Greenways should provide benefits like safe pedestrian, bicycling and equestrian routes for recreationists and commuters; and natural wildlife corridors and biological reserves.**	Article XXV. §115-194.3, E

*Quoted as it appears in zoning ordinance

Form-Based Codes

From its beginning, the zoning ordinance was established to ensure safety and health of city dwellers, for example, by limiting residential density to avoid the spread of fire (Hoch, 343). However, the exclusivity of traditional zoning, which has separated residential land uses from commercial, has had the opposite effect over the years. Separated land uses have consequently led to a dependence on cars. Therefore, traditional zoning has contributed to inactive lifestyles that cause obesity, heart disease, diabetes, and asthma (Hoch, 343; "Talking Points"). The understanding that driving less and walking more promotes healthy lifestyles has led to a shift in zoning philosophy to include the following practices ("Talking Points"):

- Creating zones that permit a mixture of residential and commercial land uses.
- Requiring the construction of sidewalks along roads.
- Introducing measures to slow traffic in areas of high pedestrian movement.
- Insisting that pedestrian access is considered in development or redevelopment projects.

Recently, there has been a growing movement to reform zoning codes due to their restrictive nature, lack of flexibility with respect to building forms and land uses, and inattentiveness to design standards. A new regulatory tool, called form-based codes, is gaining popularity among communities. This approach places primary emphasis on the visual aspects of development and less emphasis on functional land uses. Unlike conventional zoning codes, which are proscriptive and define restrictions on land use and density, form-based codes are more liberal and provide design guidelines and standards that are consistent with attributes of smart growth. Form-based codes provide greater attention to the appearance of the streetscape, design of public spaces or realm, facades treatments, and standards for building form, public spaces, and architectural materials and qualities ("In the News," 2005).

The new form-based code approach is favored over conventional zoning codes for several reasons. First, the concept of form-based codes is easier to grasp because the details are concisely depicted through graphics and photographs, rather than the lengthy text within disjointed sections of a zoning code. Second, form-based codes favor mixed-use development rather than a separation of land uses. Third, form-based codes address smart growth issues such as housing affordability, transit-oriented development, pedestrian-friendly design, and open space preservation. Finally, because the public participation process is design-oriented, it results in a shared vision of the community's public realm and streetscapes. Together, these aspects can lead to a project approval process that is more expeditious, coherent, and cost-effective than under conventional codes ("Form-Based Codes").

Context-Sensitive Design

According to the Federal Highway Administration, context-sensitive solutions (CSS) is a, "collaborative, interdisciplinary approach that involves all stakeholders to develop a

transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist" ("What is CSS?").   In June 2001, the State of Delaware adopted a Context Sensitive Design Policy to incorporate walkable design features within transportation improvement projects. This policy enables DelDOT to dedicate a portion of transportation improvement project funding to enhance aesthetics, the walking environment, and/or pedestrian mobility (Delaware Department of Transportation, 32).

The change in zoning philosophy also is reflected in county comprehensive plans and zoning codes in Delaware. Each county has implemented, or plans to implement, provisions that support walkability principles. Some of the innovative initiatives are described below:

- **The hometown overlay district and community redevelopment plan** – New Castle County recognizes there are attractive and livable communities that have been settled before the creation of zoning and that they now face a threat from current zoning laws and new development. The County has adopted a redevelopment plan, along with a Hometown Overlay District ordinance, to protect the character of these older communities. The redevelopment plan states that future growth will continue the historic atmosphere and not strictly adhere to modern zoning standards. The Hometown Overlay District ordinance enables the redevelopment plan to succeed by allowing new development to occur as a matter of right if it perpetuates the existing characteristics of the community, e.g., mixture of land uses and high density (Claymont, 1-2).

- **Transfer of development rights program** – Kent County has adopted this program and describes it as "the conveyance of the ability to develop residential lots from one property to another" (Kent, 12). Property owners in rural areas can sell their development rights to land owners in designated growth areas. This policy ensures that new development occurs where there is supporting infrastructure and that farmland is preserved (Kent, 12-13).

- **Residential planned community** – In its revised comprehensive plan draft of March 2008, Sussex County calls for the continuation of Residential Planned Community provisions "to allow flexibility in the standards for larger developments, in return for a higher quality of site design." Provisions include these six site designs (Sussex, 7-8):

  - Mixture of housing types
  - Higher density
  - Percentage of commercial land uses on the tract
  - Reduction in street widths
  - Alleyways for rear driveways
  - Percentage of open space on the tract

Transit-Oriented Development

Finally, another approach to handling growth that diverges from traditional zoning is transit-oriented development. Transit-oriented development (TOD) is infill development at mass transit hubs and along transit corridors that densely clusters a mix of homes and businesses, provides convenient access for walkers and bicyclists, establishes a sense of place with a more attractive transit system, and is less disruptive to the environment than car-oriented extra-urban development. In a word, TOD improves the quality of life and health of the community by promoting the use of public transportation ("TOD"; "From Vision to Action"). The quality of life is raised because TOD offers residents and transit users places to eat, shop, and play in a less motor-congested and more compact area, which encompasses transit centers. This development also contributes to a healthy and desirable community by supporting pedestrian and bicycle activity through a network of sidewalks and bikeways (DeCoursey).

A local government can implement TOD by incorporating in its comprehensive plan and zoning provisions the regulatory practices listed below ("TOD," 2-4):

- **Allow "transit-supportive" land uses and prohibit non-transit-supportive uses** – Some examples of uses that support transit—that serve the needs of the community and generate a people presence on the street—include food marts, newsstands, bookstores, specialty shops, salons, restaurants, movie theaters, and outdoor cafes. Some examples that should be barred because they discourage pedestrian movement include gas stations, car washes, auto repair shops, drive-through banks, lumber yards, and warehouses.
- **Encourage moderate-to-high density development that supports transit** – This practice can be achieved by requiring density minimums, incentivizing transit station enhancements with density bonuses, and/or easing the requirements for parking spaces.
- **Establish new zoning districts that allow mixed uses by right** – The zoning ordinance can include new districts that permit both residential and commercial land uses as a matter of right rather than stipulating conditions on, for example, businesses.
- **Establish new zoning districts with a transit overlay** – These districts can add regulations to increase density near transit centers and disallow buildings that do not support transit.

Other Regulatory Tools

Other regulatory tools in addition to zoning regulations that promote walkability, include but are not limited to:

- **Subdivision ordinance** – To detail how properties should be prepared for specific development and land uses. For instance, a town may adopt a provision that requires a developer to set aside a certain percentage of the land to be developed for public open

space, which can be used for parks and trails. In the case where the land cannot be dedicated for community open space, a "payment in lieu of" stipulation can ensure the city gains funds for pedestrian-friendly developments elsewhere.

• **Pedestrian-friendly design ordinances** – To require developers to install sidewalks, plant street trees, limit lot sizes, and reduce curb width of residential driveways. Another provision may be adopted to require the maintenance of an expansion of the sidewalk network to the town center (which in Delaware is typically a denser, pedestrian-friendly, and historic area).

• **Official maps** – To legally establish the location of existing and proposed infrastructure such as multi-use trails, sidewalks, pathways, pedestrian-friendly provisions, and other public lands and facilities. The process of creating an official map documents and informs property owners and prospective developers of the plan for future public improvements.

• **Annexation agreements** – To provide a municipality with the ability to leverage contributions from a developer before annexation of a parcel of property occurs (Persky and Wiewel, 74). Since annexation is a voluntary act, municipalities are free to negotiate with the developer annexation agreement provisions such as pedestrian/bikeway facilities, pedestrian-friendly design standards, connectivity between neighborhoods, street design standards, and other walkability improvements.

• **Local building codes and standards** – To ensure that requirements meet or exceed the Americans with Disabilities Act (ADA) Standards for Accessible Design for newly constructed and altered buildings and public facilities. According to Title III of ADA, local building officials are responsible for oversight and inspection of construction and code compliance to ensure that ADA accessibility requirements are achieved (U.S. Access Board, 47). In addition, jurisdictions that require the installation of sidewalks and trails must ensure that code requirements meet or exceed ADA accessibility mandates and that code enforcement officers or officials inspect for ADA accessibility (O'Donnell and Knab, 71).

Table 3 (next page) illustrates some of these other regulatory tools in town codes of Delaware municipalities that support walkability.

Table 3. Walkability Provisions in Municipal Codes of Delaware Towns

Municipality (Population*), County	Ordinance Type	Pedestrian-Friendly Feature	Provision**	Location
Bridgeville (1,436), Sussex	Land use and Development	Sidewalks Requirement	Sidewalks are required in all subdivisions, unless the subdivision is served by a classification street for which sidewalks are generally not provided. Sidewalks shall be dedicated as part of the right-of-way of all streets.	Ch. 324 Article XIV. §234-63, A
Delaware City (1,453), New Castle	Vehicles, Traffic, Parking	Crosswalks and Pedestrians' Right-of-Way	The driver of a vehicle or coach shall yield the right of way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at the end of a block, except at intersections where the movement of traffic is being regulated by police officers or traffic control signals.	Ch. 27 Article III. §27-17, A
Elsmere (5,800), New Castle	Streets and Sidewalks	Snow/Ice Removal	Within eight (8) daylight hours after the conclusion of each snowfall, each property owner or tenant in the Town of Elsmere shall remove the snow and ice from the sidewalk and sidewalk area upon his property or the property he tenants.	Ch. 192 Article I. §192-1
Milford (6,732), Kent	Subdivision of Land	Block Design Standards	Pedestrian walkways other than in streets may be required where deemed essential to provide for circulation or access to schools, playgrounds, shopping centers, transportation, and other community facilities.	Ch. 200 §200-6, D
Newark (28,547), New Castle	Subdivision	Payment in Lieu of	Where, with respect to a particular subdivision, the reservation of land required pursuant to this section does not equal the percentage of total land required to be reserved in accordance with this appendix or the land is determined to be not suitable for dedication by the public works director and the director of the department of parks and recreation, the city council may require, prior to final approval of the construction improvements plan of the subdivision, that the applicant deposit with the city a cash payment in lieu of land dedication.	Ch. 27 Appendix VI. E

*"Delaware's Municipalities: Facts and Figures" **Quoted as it appears in Town Code

Table 3. Walkability Provisions in Municipal Codes of Delaware Towns   *(cont'd)*

Municipality (Population*), County	Ordinance Type	Pedestrian-Friendly Feature	Provision**	Location
Smyrna (5,679), Kent	Subdivision and Land Development	Open Space Dedication	**Open space shall be required in all major subdivisions and land development plans.**	Appendix B. §5.07, A

*"Delaware's Municipalities: Facts and Figures" **Quoted as it appears in Town Code*

Table 4 gives some examples from states that neighbor Delaware. They include "best practice" examples that Delaware municipalities may wish to consider adopting.

Table 4. Walkability Provisions in Municipal Codes of Neighboring States

Municipality, County	Ordinance Type	Pedestrian-Friendly Feature	Provision*	Location
Pennsylvania				
Pocopson, Chester	Subdivision and Land Development	Required Sidewalks and Trails	**Sidewalks shall be provided, in areas of high potential pedestrian use, such as the vicinity of schools, commercial centers, or high-density residential development. In addition, trails shall be provided in cluster developments to provide access to and across common open space areas. The Board of Supervisors shall also require land proposed for subdivision or land development to provide trails in accordance with the comprehensive trail and bikeway system or provide links to the system, and to identify such public use trails on the plan.**	Ch. 190 Article VI. §190-31, A
		Sidewalk Design Standards	**When constructed, sidewalks shall be either concrete or bituminous mix with a minimum of four feet width and four inches thick except at driveway crossings when the sidewalk thickness shall be increased to six inches.**	Ch. 190 Article VI. §190-31, B
London Grove, Chester	Subdivision	Trail Protection	**On any tract containing an existing trail, as shown on the Comprehensive Trail System Map or as otherwise identified by the applicant of the Township, the plan for development of the tract shall incorporate and protect the continuing viability of the trail.**	Article 6. §616, A

Quoted as it appears in the Town Code

Table 4. Walkability Provisions in Municipal Codes of Neighboring States *(cont'd)*

Municipality, County	Ordinance Type	Pedestrian-Friendly Feature	Provision*	Location
Maryland				
Annapolis, Anne Arundel	Vehicles and Traffic	School Crossing Guards	**The City may provide for the placement of school crossing guards as deemed necessary for the safety of children at school crossings.**	§12:12-010
College Park, Prince George's	Property Maintenance	Exterior Maintenance	**It shall be the duty of the owner to keep the premises free of hazardous areas, which include…public nuisances, snow removal: accumulated snow or ice on paths, walks, driveways, parking lots and parking areas and other areas which are accessible and used by pedestrians and automobiles, where such snow and/or ice remains uncleared within eight hours of daylight after the termination of the snowfall.**	Ch. 157 Article I. §157-6, B1, A [10]
Cumberland, Allegany	Subdivision	Crosswalks Requirement	**Pedestrian crosswalks, not less than ten (10) feet wide, may be required in a subdivision when deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation and other community facilities.**	Ch. 23 Article III. Division 2: §23-140, A
New Jersey				
Newark, Essex	Streets and Sidewalks	Defacing Sidewalks	**It shall be unlawful…to gouge, paint, stencil, color, mark or deface the pavement, sidewalk, or curb of any public street…or any pavement in the City.**	Title XXIX Ch. 4 Article 2. §29:4-9, A
	Land Subdivision	Curb Cuts	**Handicap and bicycle curb cuts shall be designed into all sidewalk designs consistent with the approval of the Director of Engineering.**	Title XXXVIII Ch. 10 Article 5. §38:10-40, E
Trenton, Mercer	Streets and Sidewalks	Snow Disposal	**It shall be unlawful to shovel, plow, or blow snow from the sidewalk into the abutting street or public alley and/or beyond the curbline. Snow removed from the sidewalk must be piled up at the curbline on the sidewalk, effecting a suitable and safe path for pedestrian crossing.**	Ch. 257 Article VII. §257-38

*Quoted as it appears in the Town Code

Table 4. Walkability Provisions in Municipal Codes of Neighboring States *(cont'd)*

Municipality, County	Ordinance Type	Pedestrian-Friendly Feature	Provision*	Location
New Jersey				
Trenton, Mercer	Zoning and Land Development	Open Space Plan Requirements	**The open space plan required under this chapter shall indicate the size and configuration of exterior or interior public open space having appropriate landscaping features, such as trees and shrubbery, sitting areas, plazas and similar open space, designed chiefly for public pedestrian enjoyment.**	Ch. 315 Article XXX. §315-210, B

Quoted as it appears in the Town Code

Planning a Pedestrian-Friendly Community

Link Between Community Design and Walkability

Traditional communities, primarily those built before World War II, have a strong sense of place that resulted from careful planning and community design. Because these traditional communities have a more compact, human-scale design, they are inherently more walkable. Traditional communities have a distinct town center with a mix of businesses and attractive buildings. They are also characterized as having well-built homes, interconnected streets, mature trees, public squares, a variety of retail shops, and transit and offer close proximity to schools, parks, and neighborhoods. In contrast, post-World War II communities have separated land uses and are oriented toward automobile travel, which has contributed to sprawling development.

In recent years, communities are rethinking their development strategies and growing smarter. Design professionals, public health experts, government officials, park and recreation professionals, land use and transportation planners, environmentalists, and community residents are recognizing that there is an essential link between the design and health of a community. Neo-traditional neighborhood design and smart growth strategies are being implemented to mitigate the effects of sprawl, promote a sense of community, and encourage pedestrian-friendly design. In Delaware, smart growth principles are supported by the state's Livable Delaware initiative and a statewide focus on implementing mobility-friendly design standards. The Delaware Department of Transportation (DelDOT), the Transportation Management Association (TMA) of Delaware, Office of State Planning Coordination (OSPC), and the University of Delaware Institute for Public Administration (IPA) have collaborated to build a foundation for development design standards for statewide transportation infrastructure, based on the ten common "mobility-friendly" elements. This checklist can be used ensure that key mobility-friendly components are present in all developments (Athey, O'Donnell, and DeCoursey):

- **Mix of land uses and housing types** – To foster civic, social, and physical activity.
- **Interconnectivity** – To provide an accessible, grid-like street pattern that facilitates a range of transportation modes.
- **Public spaces as a focus of development** – To highlight the importance of a sense of place and orientation towards pedestrians.
- **Managed density** – To support viable public transit systems.
- **Universal accessibility** – To ensure that all public transportation facilities, including pedestrian and transit facilities, are compliant with the Americans with Disabilities (ADA) Act.
- **Pedestrian-friendly infrastructure** – To ensure that pedestrian-circulation systems are designed in a manner that is safe, interconnected, and multi-modal.

- **Multi-modal infrastructure and design** – To provide infrastructure that is both pedestrian- and transit-supportive and allows fast transitions between modes.
- **Transit-oriented design** – To locate and design public facilities to minimize automobile dependency and maximize multi-modal transit opportunities.
- **Off-road facilities** – To provide recreational opportunities such as trails and shared-use paths, circulation system connections, and infrastructure that promotes a healthy, walkable community.
- **Managed parking** – To locate and design land-efficient parking that also encourages transit use.

How Do Successful Communities Become More Walkable?

Communities with the key mobility-friendly components do not just happen by accident. While motivations vary, communities that are more walkable have made clear, conscious decisions about the kind of future they desire for their residents, develop a common vision, and plan for action. In *Better Models for Development in Delaware*, Ed McMahon cites the following secrets of communities that have design features associated with a good quality of life and an enhanced pedestrian orientation. These communities (McMahon, 5 - 8):

- Have a shared vision for the future.
- Identify key assets.
- Build local plans based on preservation and enhancement of local assets.
- Pick and choose among development proposals.
- Assess the impacts of land-use policies.
- Use education, incentives, and voluntary initiatives—not just regulations.
- Meet the needs of both landowners and community members.
- Pay attention to community appearance, economics, and ecology.
- Recognize the link between land use and transportation.

So how do successful communities become more walkable? Policymakers and community leaders need to assess opportunities for improvements and share a powerful and positive image of a healthy community legacy for future generations. Developing, communicating, and promoting a vision for the community's future is an essential step. In addition to serving as visionaries, policymakers and community leaders need to build support for this vision and empower others to adopt policies, plans, and programs for a more walkable and healthy community. Once broad-based support for a pedestrian improvement project is established, the planning process may begin. Throughout a planning process, the importance of working with and through stakeholders and strategic partners cannot be underscored enough.
The process of planning for infrastructure improvements to create pedestrian-friendly community is illustrated below.
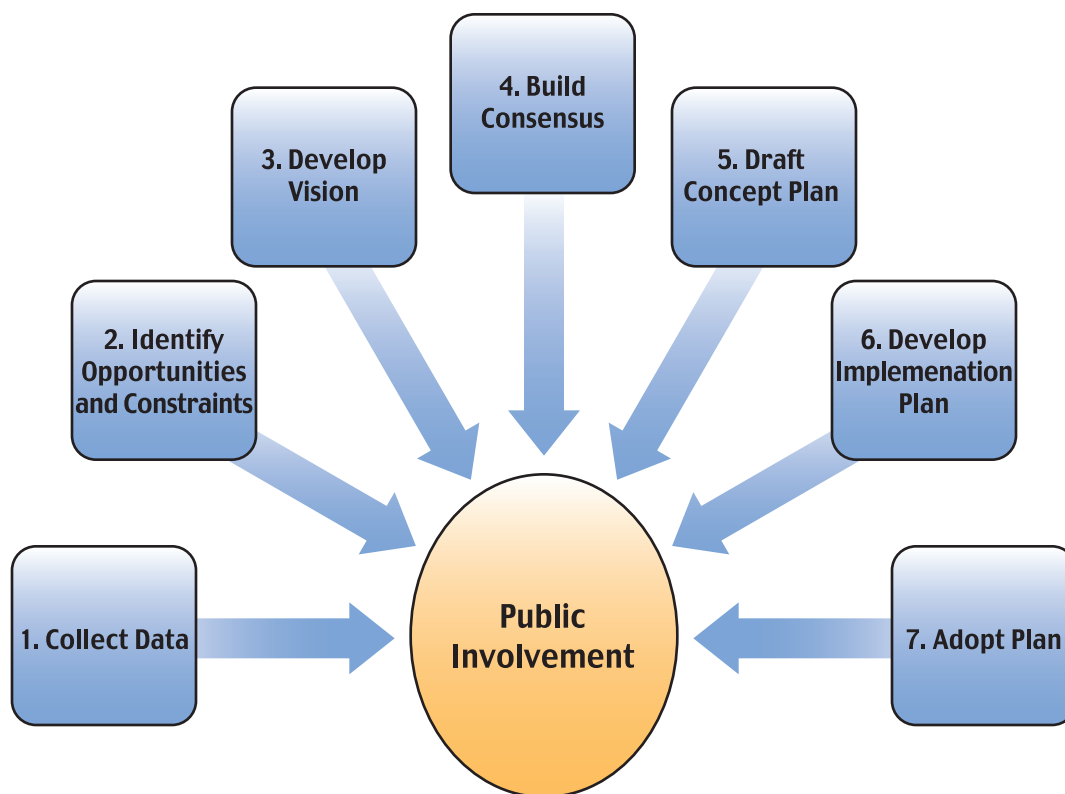
Collect Data

The way a community is designed, built, and maintained determines its walkability. Planning for infrastructure improvements needs to start with an overview of the study area and inventory of existing mobility-friendly design features. Both primary and secondary research may be used to collect data to plan for a walkability improvement project. Primary research may include the use of surveys, interactive keypad polls, focus groups, and key person interviews to gauge public opinion and gain a clear understanding of the preferences of local residents. Input from prospective users will help shape decisions that reflect their mobility and accessibility needs. Input from professionals such as engineers, landscape architects, planners, archeologists, historians, environmentalists, and public health officials is needed to help ensure that a concept or idea is feasible. Geographic Information Systems (GIS) is an interactive mapping tool used to display and analyze spatial data which are tied to databases. This technology organizes information in layers and can map an existing pedestrian network and where future infrastructure improvements, connections, or new facilities such as trails, sidewalks, or shared-use paths may occur. Not only does GIS provide municipalities with an expandable management tool to track and monitor development of the pedestrian network, it also helps the community visualize possible development scenarios.

Secondary research refers to data that already exists. Demographic information and trends that may influence planning outcomes should be reviewed and analyzed. An inventory of existing

pedestrian-oriented infrastructure, facilities, and linkages to other pedestrian networks or trail systems should be conducted. Existing plans, ordinances, and policies at the federal, state, regional, and local levels should also be reviewed to obtain data that supports the need for a project and to ensure consistency and compatibility in planning.

Walkability Audits

Stakeholders and advisory committee members can help to assess the need for potential public policy changes and infrastructure improvements. One approach to identifying whether a community's walking environment is safe, accessible, convenient, and attractive to pedestrians is by conducting a walkability audit. A walkability audit is "an unbiased examination/evaluation of the walking environment" ("Assessing Walking Conditions with Audits"). Informal audits that involve an interactive field visit to an area of concern and observation of conditions can be conducted by a group of community members and local government or agency representatives. Results of the informal audit should be documented and reviewed by the local government department or state agency that is responsible for the design, development, and maintenance of the pedestrian walkway, facility, or road.

More formal audits can also be conducted. The University of Maryland's National Center for Smart Growth has developed a Pedestrian Environmental Data Scan (PEDS) survey instrument that includes an audit sheet and standardized procedures for the audit activity. PEDS requires a team of surveyors to go out into the community with maps to assess a segment of the pedestrian network. Conditions and aspects of the pedestrian network such as the environment, pedestrian facilities, road attributes, walking/cycling environment, and a subjective assessment are rated according to criteria established in the protocol. While PEDS is more formal, labor intensive, and time consuming, the audit sheet can be easily adapted for a more informal audit in a small community (See Appendix A).

NED Assessment Tool

For the University of Delaware's Healthy-Walkable Communities Initiative, IPA uses a three-pronged approach to assess a community's walkability. Called NED, this approach examines the study area's:

- **Network** – referring to the presence and completeness of the pedestrian network including sidewalks, paths, trails, crosswalk connections, and directness between destinations and origins
- **Environment** – dealing with the extent to which the pedestrian environment is pleasing and aesthetically appealing; is safe, secure, and barrier free; and adequately orients buildings and walking spaces.
- **Destination** – describing the utility of the pedestrian network including convenience and access to places of work, play, business, and education.

A town's self-selected study committee or working group is involved in the NED walkability assessment of the study area.   Together with IPA's assessment of the town's infrastructure, codes, and recreational opportunities, the study committee helps to make recommendations that may lead to a larger scale walkability improvement project.

Identify Opportunities and Constraints

Once data has been collected, an analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) can be conducted collectively by stakeholders, advisory committee members, and professionals responsible for plan development. A SWOT analysis is a tool that can be used to analyze data and is a key step in crafting a strategic plan for the development of a more walkable community. It provides a framework for developing a vision statement, establishing goals, and setting objectives based on community assets rather than present needs. Finally, a SWOT serves as the basis for assessing pedestrian planning options and prioritizing phases of development and implementation.

Determine Community Vision

According to the International City/County Manager's Association (ICMA), Active Living Communities, or those that integrate physical activity into daily routines, are in high demand. An active living community provides opportunities for people of all ages and abilities to achieve at least 30 minutes of moderate activity each day. Members of active living communities experience benefits of improved health, economic vitality, and quality of life. Local government policymakers and community leaders can serve as visionaries and champions to promote a pedestrian-friendly community that supports an active living way of life. Planners, transportation, public health, recreation, economic development officials, and other professionals can influence policies, programs, and strategies that impact active living opportunities. Visionary leadership can help to shape positive policy decisions that affect the built environment such as the design and layout of streets, zoning ordinances and amendments, facility design and master plans, and the implementation of such plans (ICMA, 1).

To develop a strategy for an active living community, strong leadership and an ongoing participatory planning process are needed. Many communities will hire a consulting firm to oversee the planning process with input from the public, advisory committees, and Parks and Recreation Department. A successful strategy or plan (Saratoga Associates, 1-2):

- **Incorporates an inclusive planning process** – A sustainable, comprehensive plan is community driven and community focused. The community needs to be involved from the onset in the planning process to develop policies or design, construct, and implement projects related to a pedestrian-oriented project. Citizens and stakeholders, who represent

diverse community interests, need to be identified and proactively involved in an ongoing planning process. Citizen involvement should serve to educate citizens and stakeholders on issues and options; provide meaningful opportunities to shape a community's vision, goals, and strategies; and provide ways to engage stakeholders in implementation activities. Public participation should be designed to involve stakeholders with meaningful access to key decisions.

- **Communicates a compelling vision** – Ultimately, it is the vision of people, not the process that makes a successful master plan. Stakeholders involved in the master planning process must develop a shared vision of community needs that can be translated into a strategic action plan. A visioning process translates the mission of an organization, strategic plan goals, and stakeholder interests into a collective aspiration for the community.

- **Provides a dynamic, ongoing planning process** – A strategic plan should anticipate, embrace, and respond to future changes in social, environmental, economic, political, or other conditions. An ongoing plan should articulate community vision, develop strategies or plans to accomplish goals and objectives, and provide a flexible implementation plan or action strategies that can be accomplished in phases or adjusted as circumstances change.

Visioning Process

Visioning is "a process that helps a community identify the future it desires by defining its core values and goals as well as strategies to achieve that future. The vision created through this process—what a community should be like in 10 to 20 years—becomes the foundation on which land-use laws, fiscal budgeting, and detailed strategic policies can be based. For policy-makers and community leaders…having a long-term vision of their community's future is critical, as the decisions of today shape a community's future health, vitality, and well-being" (Baldwin, 28).

The Oregon Model was conceived as a primer for local elected officials, planners, and citizens interested in the process of community visioning. The model is designed to actively engage participants in an easily understood process to plan for the future of a community. The simple, four-step process leads participants from understanding the current state of the community and its values to an action plan for carrying out a future vision for the community (Ames).

THE OREGON MODEL:
a comprehensive community–visioning process

1. Where are we now?	2. Where are we going?	3. Where do we want to be?	4. How do we get there?
Community Profile	Trend Statement	Vision Statement	Action Plan
descriptive information, community values	trend information, probable scenario	possible/preferred scenarios, community vision	goals, strategies, actions; action agendas and priorities

Prepare a Vision Statement

A vision statement is a vivid, idealized description of a desired outcome that inspires, energizes, and helps create a mental picture of desirable future condition. According to Fieldstone Alliance, an organization that builds nonprofit capacity, a vision statement should (Fieldstone Alliance):

- **Excite and inspire followers** – To feel good about moving towards a shared vision for the future, the vision must convey a positive image and address critical issues. "Vision-storming" is a recommended approach that allows stakeholder participants to draft, refine, and agree to a vision statement.
- **Be attainable and realistic** – To be effective, stakeholder participants must believe that they can attain the vision within a reasonable time period.
- **Be supported by sufficient resources** – To fuel the work to achieve the vision, there must be adequate funding, willpower, and organizational capacity to succeed.
- **Be concise and memorable** – To enable leaders and stakeholders to respond to an expressed need for a positive vision of the future.

The following two examples of vision statements pertain first, broadly, to a vision for a "livable community" and second, specifically, to development of a comprehensive trail system:

The [town] will be characterized by [neighborhoods] with diverse populations, accessible jobs, pedestrian-friendly residential and commercial areas, and economically diverse housing stock. All the [town's] residents will have access to high-quality, open space and recreation opportunities; convenient public transportation; and excellent, equitable schools, health care, social services and cultural amenities (Realizing the Vision, 3).

[The City's] trail system will be a vibrant network of interconnected trails, greenways, blueways, and cycling routes that will support the City's commitment to creating a livable, attractive, and healthy community. It will provide a variety of exciting opportunities for walking and cycling that will link people to each other, to their community, and to [the City's] unique natural and cultural heritage (2010 Richmond Trails Strategy).

Establish Goals and Objectives

Goal and objective setting are integral to the visioning process. A goal is a statement of broad direction, purpose, or intent based on the needs of the community. Goals should consider outcomes of the SWOT analysis and reflect the vision of a livable, attractive, and healthy community. Objectives, or precise statements of how the goal will be accomplished, should be established for each goal. SMART objectives are specific, measurable, attainable and agreed

upon, result oriented, and time bound (Miami-Dade County, 11).

Obtaining consensus on goals and objectives in a group setting is challenging. Organizational psychologists recognize that group dynamics can influence goal and objective setting within a visioning process. Their research indicates that goal follow-through and achievement is more successful when a person publicly states a goal in front of someone they value (Baldwin, 31). Trained meeting facilitators use this theory of goal setting to develop strategies to make stakeholder agreement possible. To ensure active living aspects are considered, the following themes of a pedestrian-friendly community should be considered by participants in a participatory engagement process for goal and objective setting:

- **Circulation system** – Including linkages and connections for pedestrians and bicyclists.
- **Conservation and natural resources** – Including opportunities for environmental stewardship.
- **Cultural and historic resources** – Including opportunities to showcase a community's cultural landscapes, unique heritage, and historic sites.
- **Aesthetics and design** – Including safety improvements, scenic views, streetscape amenities, and traffic-calming measures.
- **Economic development** – Including initiatives such as trail-, heritage-, and eco-tourism.
- **Recreation** – Including programs and special events to promote use of walkable facilities.
- **Mobility and access** – Including diverse intermodal options and connectivity.

The following is an example of goals for a trail network, which reflects a community's active living values:

> The proposed trail network is based on a "hub & spokes" model, where parks and other popular destinations serve as "hubs" and the trails that connect them serve as "spokes…" Goals of the trail network [are to] (Trails & Greenways Master Plan, 1-9):

- Offer area residents a viable choice to walk or bike for their local trips.
- Provide opportunities for improving the personal health and fitness of individuals.
- Stimulate economic growth through increase in real property value and tourism.
- Enhance and protect the environmental quality of open spaces and creek and river corridors.
- Conserve and tell the story of local culture, history, and heritage through interpretive trails and signage.

Build Consensus

Communities are recognizing that it is essential to build a collaborative environment and actively involve citizens in the decision-making process in order to resolve a public policy issue

or plan for a project that will benefit the community. Studies have shown that the benefits of citizen participation include an enhanced understanding of community need, greater input in the problem-solving and decision-making process, shared ownership or "buy-in" of solutions or plans, and reduced likelihood of opposition to a project and public investment to fund the project (ICMA and National League of Cities, 1997). To develop a truly community-driven initiative, genuine community involvement is required at every stage of the process in planning and developing a walkable community. This process requires mutual understanding and collaboration between the local government or entity planning the project and the community itself.

Advantages of Consensus Building

In recent years, the public has challenged and resisted traditional top-down government decision-making, where public officials make and rigorously defend policy decisions. The Policy Consensus Initiative and the National Policy Consensus Center have worked to support initiatives and develop collaborative governance systems to achieve better state and local government solutions through consensus-building tools (Policy Consensus Initiative, n.d.). The director of the Florida Conflict Resolution Consortium indicates that the advantages to collaborative approaches to decision-making and problem-solving at the state and local levels, include (Jones, n.d.):

- **Making better decisions** – Which reflect the concerns of stakeholders and result from developing a common ground for action.
- **Achieving faster implementation** – As a result of a plan or policy being crafted that considers the basic needs and incorporates input from all stakeholders.
- **Arriving at mutually beneficial solutions** – To bridge community differences.
- **Educating constituencies** – On the concerns of other stakeholders and the complex nature of problem solving.
- **Dealing productively with the distribution of power** – To recognize that the power of decision-making is not vested in one group or political leader.
- **Creating new resources** – To leverage support from public, private, and community organizations.
- **Managing diversity and building common ground** – To improve relationships among diverse groups, build trust, and identify common ground.
- **Collaborating** – To develop action plans that cross interjurisdictional boundaries.

Strategies to Build Consensus

Consensus building is defined as a "decision-making process that is vital to any community planning effort or other process requiring public participation" (National Park Service, n.d.). Consensus building involves bringing people together to express their ideas, clarify areas of agreement and disagreement, and develop shared resolutions (National Park Service, n.d.).

While there is no right or wrong way to build community support for a walkability project, there are several processes or strategies to actively engage stakeholders and elicit public involvement.

Best Practices - Tools to Build Public Involvement and Consensus

A strategy needs to be developed to solicit public input and provide broad opportunities for community involvement. There are different options to inform, engage, involve, or outreach to stakeholders and potential project partners. The idea is to engage people to discuss their ideas and concerns and offer suggestions for planning a more walkable and healthy community. This builds trust, enables people to feel empowered to take ownership of the project, and builds community involvement and pride. Community members need to know how they may actively participate in planning a walkability project and be recognized for their efforts.   Tools and techniques to promote community involvement are highlighted below.

Forums
While local governments and public bodies hold regular meetings to conduct business, public forums can supplement the regular meeting process to effectively inform the community about a proposed plan and obtain citizen feedback to guide decision-making. In order to decide what type of public forum should be held, several things should be considered. First, the meeting should be planned with the purpose in mind. The type of public forum depends on whether the intent of the meeting is to passively inform the public, problem solve to better frame the issue and define the problem, brainstorm on various planning scenarios, or actively obtain feedback from stakeholders.

Second, regardless of the type of public forum that will be held, it is essential to prepare an agenda with guidelines for citizen participation and ground rules for public comments and input. Third, all meetings of a public body should be advertised and open to the public in conformance to the Freedom of Information Act (FOIA). While not an inclusive list, below are public forum options to gather and engage the public:

- **Formal meeting** – Schedule a formal meeting that is targeted to include all stakeholders and provides an agenda that addresses the goals and purposes of the session. While the time length of a formal meeting varies, it is essential to provide scheduled breaks every 90 minutes. If the purpose of the meeting is to share ideas and information, then each participant should be sent the supporting materials and documents prior to the confirmed date. To streamline and enhance the effectiveness of a meeting, organizers should assign roles of a facilitator to guide the discussion, a presenter to share facts and information, a recorder to document the proceedings, and a timekeeper to enforce meeting time limits (Community Toolbox, 2003).

- **Charrettes** – As intensive brainstorming sessions, charrettes bring key informants and community leaders together to develop ideas and build partnerships among organizations,

agencies, and special interest groups. According to the National Charrette Institute (NCI), a charrette is a "collaborative planning process that harnesses the talents and energies of all interested parties to create and support a feasible plan that represents transformative community change. The public design charrette is as an alternative to the "design and present" convention, which provides a framework for creating a shared vision with community involvement, directed by consultants representing all key disciplines" ("What is a Charrette?").

• **Public workshops** – Public workshops bring together diverse people with various ideas to work towards a consensus on an issue or topic. Workshops may include large-group presentations and small-group interactive sessions that often allow for greater participation and encourage open dialogue among participants. The key to public workshops is to have strong facilitators to ensure that there is good communication and active listening among participants to build consensus (Community Toolbox, 2003).

• **Open house** – An open house is an informal public meeting, possibly legally required, with the primary object to disseminate project information to the public and accept public comment. Components of an open house may include a formal presentation by the project sponsor, display of project exhibits and alternative design scenarios, and opportunity for informal conversation between the sponsor and the public. Written comments are usually accepted, but unrecorded verbal conversation is the primary form of communication. (Washington State Department of Transportation, 2007).

• **Focus groups and forums** – Focus group meetings and community forums seek to inform future neighbors or adjacent property owners about a project early in its planning stages to obtain input, solicit volunteers, develop a vision, and build consensus.   On-site visits or walkability audits may be conducted with focus group participants to help identify key needs, concerns, issues, and challenges (City of Shoreline, 2006).

Public Involvement Tools and Techniques
Tools and techniques to involve the public, document public input, or provide outreach to better inform the community about plans for a walkability project, and a list to carry out these techniques are described below.

• **Interviews** – Interviews are most effective to conduct public outreach individually, when there is not a large population of community members. To be effective:

  • Conduct key person interviews or prospective users of the facility, non-users, and adjacent property owners. Group interviews may be conducted at civic- or social-organization functions.
  • Conduct key person and group interviews in diverse public places, various times, and different days to ensure that there is sufficient public involvement outreach and inclusion.

- Train interviewers (possibly advisory committee members) on proper interview protocol before speaking with any community member.
- Gain permission for an interview first and respect the rights of the people who decline an interview.
- Prepare a script for each interview, including a statement about the purpose and goal of the interview.
- Allow the interviewee to remain anonymous, and remind the person that answers will remain confidential.
- Refrain from leading or steering the interviewee toward a response. The point of the interview is to gain the ideas and concerns of the community surrounding this project.
- Thank respondent(s) for their time, and inform them how results will be communicated upon completion of the interview.

- **Questionnaires/surveys** – Survey instruments may be developed to gather input from a large population that would be difficult to reach individually and/or unlikely to attend public meetings. While the design of questionnaires and surveys vary, they should be professionally developed, administered, and analyzed to avoid bias and ensure statistical significance. Questionnaires may be mailed randomly to a sample population and administered via an online survey, telephone, or conducted in person. The drawbacks to surveys include cost and low response rates.

  Once the surveys have been collected and analyzed, the task force and key partners should have an idea of what the community members are interested in pursuing. The task force or advisory board members should use survey feedback as part of the data collection and SWOT analysis phases of project planning. This information may be reported back at a public meeting to build awareness and create excitement for the new project. Below are guidelines to developing a survey/questionnaire instrument:

  - Include a statement on the cover page of each questionnaire to provide information about the purpose of the survey, need for voluntary participation, and use of survey information.
  - Phrase questions so that they are easy to understand and can be answered honestly.
  - Keep the questionnaire length to no more than two pages, preferably one.
  - Ask demographic questions to get a snapshot of the community's ideas based on geographic location.
  - Leave enough room under each open-ended question to allow the respondent to answer honestly. If there is not enough room provided, the answers might be limited.
  - Inform respondents that names and addresses on the questionnaire are optional; anonymity and confidentiality should be ensured.
  - Confirm that all answers will be kept confidential whether or not their name and address are listed on the sheet.

- Provide a deadline for returning mailed questionnaires and a pre-addressed, postage-paid envelope for their convenience.
- Bring an extra box or folder in which to place completed forms if the questionnaire is handed out at a meeting or a function.

- **Straw/informal polls** – These public involvement tools are unofficial public opinion surveys. They are based on a random sample of the community and are used to identify the public's opinion regarding the proposed event, infrastructure project, or program planned for the community.

Outreach Strategies

Other important aspects of building consensus are outreach strategies using written, oral, and visual communications.

WRITTEN COMMUNICATION

Written communication provides a concrete, permanent method of getting a message to a target audience. No matter how advanced technology gets, written forms of communication will always play a role in building consensus. A large group of people still rely on newspapers, brochures, and other forms of written communication to obtain information. Listed in detail below are examples of useful forms of communication that aid in building consensus.

- **Newsletters** – A well-formatted newsletter with feature stories and information can reach a large target audience. A drawback of this form of written communication is its overuse. To help decide whether or not to start a newsletter, ask yourself the following questions. What is the purpose of creating a newsletter? Would it be more effective and economical to advertise in other newsletters and submit editorials to local papers? Would it be more effective to create a website and make the information available online to your target audience? If after addressing these questions it is still favorable to develop a newsletter, then follow these steps on its creation (Community Tool Box, 2002):

  - Decide on the content of the newsletter. Stories should be targeted to the intended audience and be interesting, short, and written in the active voice ("we are" versus "we have been"). Include pictures of people in action, quotations to enhance images or messages and theme issues that include interviews with experts on the subject. Mail the newsletter periodically to include project updates.
  - Design the newsletter for readability. Use consistent font size and plenty of white space.
  - Select images carefully. Use graphics to enhance understanding of a message and attract people to the information presented in the newsletter. Avoid using a poor-quality visual image or one that does not strengthen a story.
  - Give the newsletter a signature style that is recognizable to the target audience. The newsletter masthead, sections, and consistent content placement are important.
  - Proofread the newsletter to edit the text and content.

- Print and mail it. If you have a large mailing, contact your post office on ways to lower mailing costs

- **Websites** – As a written and visual form of electronic communication, websites are popular with computer-savvy individuals. Websites are effective if they are easy to navigate, provide timely information, and serve as vehicles for public input. Begin the website-design process by assessing other forms of communication being used to inform people. Consider what aspects of a website are needed to bridge a gap in public outreach (e.g., to secure fundraising, administer online surveys, or establish blogs and/or live chat sessions). Review websites of similar groups and those that are viewed as "cutting edge." Below are guidelines to plan a website (Community Tool Box, 2002):

  - Keep the design simple and consistent. Document how each page of the website is connected and give viewers a table of contents so they may navigate to what information is most pertinent to them.
  - Keep website material basic. Creating a website is not the same as taking articles and brochures and simply posting them online. There are two types of basic web pages: splash and scripted. Splash is brief and concise. It offers readers choices to more in-depth material, but still communicates a particular message. Scripted gets readers to interact with text and images like in a game. There are frequently not as many words on scripted pages.
  - Keep the layout between pages of the site consistent (e.g., background color and navigation links located in the same place).
  - Don't assume icons will be understood intuitively. Photographs and images need captions. Make sure that all images strengthen content.
  - Consider website protection and submitting the website to search engines. Advertising the website through other forms of communication is also suggested.
  - Regularly test listed website linkages to make sure that they are still active.

- **Press releases** – These are publicized announcements, issued to media representatives, to inform the community about a new project, program, or recent development related to the walkability initiative. Press releases are effective because they can generate wide media coverage at little expense. Each press release should contain a release date, title of announcement, name of organization, and contact information. To help ensure that an announcement gets the recognition it deserves (Community Tool Box, 2002):

  - Create a strong media contact list. Research news organizations that will most likely want to be involved and write the release so it addresses their audiences and interests.
  - Place the publicized announcement within the context of trends or developments that affect the target audience.
  - Include a few approved quotes from the organization's leaders or a well-known personality associated with the project.

- Issue press releases for Monday mornings.
- Summarize the most important and essential information in the first paragraph. Then answer the "who, what, where, when, why, and how" of the news.
- Issue the press release three- to five-days before a story should be published in a daily newspaper and two weeks before a weekly newspaper.
- Follow up with a telephone call to find out whether the release was received.

- **Brochures/flyers** – Brochures are a versatile communications tool that can be used to promote membership, highlight a project, or provide a trail map. They can be handed out, mailed, posted on bulletin boards, or placed in libraries or other public places. They are typically used to announce meetings, special events, recruit volunteers, or educate the community about a resource. Steps to creating an effective brochure or flyer include (Community Tool Box, 2002):

  - Define the objective. What is its purpose? What audience are you trying to reach? Be as specific, narrowly define the message, and keep it concise.
  - Choose a format. Collect samples to see which is most effective for your particular goal. Different folding patterns will also affect production costs.
  - Write to a target audience. Convey feelings by including a story or something readers can relate to about your organization. Use an active, not passive voice, and be concise. Include a contact name, phone number, mailing address, names of other people involved in the project, and logos of involved sponsors.
  - Design it. Consider how font size, bold text, and high-quality images can enhance readability and the appearance of the document.
  - Proof it. Enlist someone who is not involved in the design or publication of the print to proofread the draft and edit for clarity of message.
  - Produce and distribute it. If funding is limited, seek support from sponsors. Project partners may be willing to help pay for production if they are recognized on the final product.

ORAL/VISUAL COMMUNICATION

Oral communication can provide a clear insight into the meaning of a message because feedback and transmission are immediate. There are several advantages to oral communications. First, the people involved do not have to end a discussion until a mutual understanding is reached. Second, the give and take of an oral exchange can help the parties reach consensus much faster than the written exchange of information. Finally, the process enables participants to clarify the intent of individual interactions with the message more fully than in writing (Oral Communication, 2002).

Visual communication enhances any written form of communication and reinforces oral methods as well. Some people learn and absorb by listening, and others by seeing. Decide what form of communication will be most useful in terms of building consensus.

- **Speaker's bureaus** – This tool allows speakers to bring information directly to a local civic association, religious group, neighborhood organization, service club, or other types of gatherings. The purpose of the speaking engagement is to spread accurate information and strengthen trust and credibility within the community. Follow these steps to organize a speaker's bureau (Community Tool Box, 2002):

  - Find volunteers with experience in public speaking, or provide training for persons with limited speaking experience, but who are passionate about the project.
  - Decide message and key points in consensus with all committee members. Different presentations must be formatted for different meeting settings.
  - Include props such as slides, maps, computerized projections, and other forms of displays.
  - Practice the scripts with props. There should be "dress rehearsals" where the speaker is recorded and then the group reviews the tape. It may also be useful to stage a question and answer session.
  - Brainstorm to find groups that are interested in hearing the proposed project. Create a flyer that lists the topics of presentation and contact information, mail them to every community organization, and initiate follow-up contacts.
  - Inform the speaker about the logistics of the presentation: an agenda; anticipated audience size; format of the presentation such as lecture, workshop, or panel discussion; length of presentation time; and availability of aids like a microphone, projector, or lectern.
  - Keep a master calendar to document all available speakers in case of last minute cancellations or emergencies. One person should coordinate schedules, solicit new appointments, and respond to particular requests for information following a presentation.

- **Displays** – Well-designed displays can increase the visibility of a project and be used to attract the public to a walkability event or location. When designing a display (Community Tool Box, 2002):

  - Create a flyer to use as a "take away" informational piece in conjunction with the display.
  - Attract children to obtain a following of adults.
  - Determine depth of display to decide if it is self-explanatory or needs to have someone there to explain, address questions, or conduct demonstrations.
  - Choose one message or theme to emphasize the most important point and message to an audience. Make the project logo prominent to give identity to the effort.
  - Seek professional help to add visual appeal and polish the design of the display.
  - Research similar events to determine the possible audience.

- **Telephone/e-mail** – Both are cheap, easy, and fast methods of communication. The key is

to figure out how to use them each appropriately—intentionally, moderately, and professionally. These tools can increase credibility, awareness, sense of involvement, and strength of relationships in a community.

One primary purpose of making telephone calls or sending e-mails is to give information such as meeting reminders, invitations to events, or need to respond to a survey. E-mails can also be used to send an attached document such as a newsletter or flyer. Telephone calls and e-mails may also be used to gather preliminary information or request volunteer help. When contacting persons (Community Tool Box, 2002):

- Request permission to call people. Remove people from a call list, if requested.
- Collect information. Find out if they prefer to be called at their home, work, or on cell phone.
- Cover all methods of communication. Some people may not have access to e-mail so be sure that all information sent electronically is also sent out via regular mail.

Draft Master Plan

Once a vision for a more walkable community has been established and strategies to build consensus and public involvement are underway, the master planning process may begin. The master planning process is only one part of total community planning. Master plans should complement and conform to other state, regional, and municipal policies and standards regarding transportation, land use, zoning, subdivision and land development, recreation, public safety, building, and design. Public participation is a cornerstone of the master planning process. In order for the planning effort to be successful, stakeholders need to agree on the scope of the planning effort, how the activity addresses the needs of the community, and what types of problems may be anticipated or need to be addressed (ICMA and NLC, p. 51).

Master plans are similar to road maps that chart out a journey between a starting point and future destination. A master plan results from a comprehensive, participatory process that guides decision-making about the future development and programming of a trail system, pedestrian facility, or infrastructure project that enhances walkability. Benefits include the community's ability to envision and shape the future, prioritize actions or develop phased plans, manage resources, improve communication, collaborate, generate support, and evaluate success of a project. Master plans are not static, but serve as dynamic, flexible planning tools that provide a framework for future, long-range planning and evolve to adapt to future needs, goals, or priorities of a community (Coe, 1). Successful master plans are:

- **Financially feasible** – The phasing of the plan's capital projects should be aligned with identified need and the ability to secure available funding.
- **Environmentally compatible** – The plan should minimize potential environmental impacts.

- **Balanced** – The plan should maintain a balance between community needs and community impacts.
- **Technically sound** – The plan should comply with federal, state, and local requirements and it should be able to be constructed efficiently and cost effectively.
- **Responsive** – The plan should address the needs and interests of stakeholders.
- **Flexible** – The plan should be dynamic and able to respond to future changing conditions.

Master Plan Components

A master plan for a new public park, trail, shared-use path, streetscape project, or infrastructure project that supports walkability integrates both strategic and physical development planning. A consulting firm may be hired by a municipality to guide the master planning process with oversight from an advisory committee and considerable public input. While there is no prescribed format, the document may consist of sections that describe the background of the project, existing site conditions, the community's vision, design considerations and requirements, funding needs, and maintenance requirements. At this stage, the master plan is conceptual in nature and is subject to public review and refinement based on input. The draft is not intended to address detailed issues related to engineered site design or operational aspects. These issues are deferred to the project development process. The following checklist describes elements of a master plan:

- **Background and existing conditions** – This section reflects outcomes of the data collection phase, which may include:

  - Base mapping using geographic information systems (GIS).
  - Site description and analysis.
  - Survey data.
  - Needs assessment for the facility or project.
  - Analysis of consistency with existing plans, policies, and statutes.
  - Description of the community's demographics, physical characteristics, pedestrian. circulation system and/or trail network.
  - Inventory of existing facilities.
  - Results of walkability audits.

- **Community vision** – This section of the master plan should express the community's vision, goals and objectives for achieving the vision, and a prioritized action plan to guide attainment of the vision. Also described in this section is the public outreach process, list of stakeholders, types of public outreach efforts and meetings, and attendees at each venue.   Outcomes of the visioning process should identify community issues, opportunities and constraints, and other considerations that may impact the planning process.

- **Draft master plan** – The draft master plan should have both a written narrative component, which describes a general management plan, and a conceptual development plan, which illustrates schematic design options for the proposed project or facility.

  - **General management plan** – The written narrative component describes:
    - Purpose of facility.
    - Types of facilities and uses.
    - Integration with existing pedestrian circulation systems and park facilities.
    - Integration with land use, water, natural resource, environmental protection, and stewardship plans.
    - Funding options.
    - Maintenance and stewardship.
    - Volunteer and partnership opportunities.
  - **Conceptual development plan** – Mapping scenarios should be included to provide conceptual design options that detail:
    - Existing and proposed phases.
    - Future pedestrian network connections and trail linkages.
    - Facility design considerations and development standards governing universal design, accessibility, maintenance and sustainability, security, and management.
    - Points of interest.

Develop Implementation Plan

Following community input, extensive fieldwork, research into related planning endeavors, and a site analysis, the draft master plan will undergo an extensive public review process. Ideally, the draft master plan will have several opportunities for public review, in accordance with FOIA, prior to adoption. A public meeting or series of neighborhood forums may occur at the onset of the planning process to introduce the project, explain the purpose of the project, review site conditions, identify community issues, clarify the planning process, and highlight opportunities for public review. After a conceptual development plan with various design options is prepared, a public workshop or informal open house may be held to enable the public to evaluate alternatives and provide feedback. After each public meeting, the draft master plan may be further refined. The final master plan will be presented at a final public hearing and be subject to a public comment period prior to the final approval and adoption of the plan.

An implementation plan should be developed based on funding, priorities, and planned phases of development. Many small municipalities, which do not have an engineer on staff, must hire an engineering firm to develop and prepare an implementation plan. This plan will consist of preliminary engineering plans, design guidelines, and cost estimates for the project. Financial resources necessary for implementation will be identified. Finally, a management plan may be prepared internally by the responsible departments (e.g., Parks and Recreation, Public Works,

and Police) to detail operations and maintenance requirements once the project is constructed, describe operational policies and standards, identify safety and security issues, plan education and stewardship activities, and organize future recreation programming activities.

Adopt Plan

After the master plan is adopted, the development process begins. Development or construction of a project to enhance the walkability of a community may not immediately follow adoption of the master plan. Funding sources must be identified, which often requires the lengthy process of applying for grants, securing voter-approved bonds, obtaining private contributions, and/or budgeting for municipal capital improvement funds. Once funding is secured, the budget will determine if phased construction is required and the scope of work for the first phase of the project.

Following plan adoption and budget approval, the contracted engineering firm may be authorized to prepare detailed engineered site designs, bid documents (drawings and specifications), and a request for proposals (RFP) to bid the construction project. The RFP will be advertised for a competitive bidding process and the contract will be awarded if all bid specifications are met. The construction process begins once all applicable permits have been secured and project documentation requirements have been met.

Designing a Walkable Community

Criteria for Designing a Pedestrian Circulation System

A pedestrian circulation system is a comprehensive and connected network of sidewalks, paths, trails, bikeways, and crosswalks that links key destinations, open spaces, and focal points of a community.   A well-designed and maintained pedestrian circulation system can encourage people to be more active and less automobile dependent. Sound planning and design of a pedestrian network or components of the system, also will minimize the need in the future for costly facility maintenance, reconstruction, or rehabilitation.

Basic components of a pedestrian circulation system are sidewalks, shared-use paths, and trails that are continuously linked to form a connected network. Each component needs to be wide enough to accommodate the anticipated volume of pedestrians and persons in wheelchairs. Surfaces of these walkways and trails should be smooth, barrier-free, and level to promote universal access by persons of all ages and abilities.   Well-designed intersections with curb ramps, crosswalks, and phased traffic signals to allow pedestrians to safely cross roads, are essential. Traffic-calming measures such as traffic circles, narrower streets, special crosswalks treatments, and speed bumps should be designed to control the speed of vehicles. Good lighting improves both pedestrian safety and attractiveness of a walkway or trail. Aesthetics can be further enhanced by installing landscaping, street trees, planting strips, and buffer zones. Streetscape features such as public art, benches, trash receptacles, water fountains, transit shelters, and light fixtures provide ambiance and promote a more human-scale orientation. If the pedestrian circulation system has shared-use paths or multi-use trails, they need to be designed to safely facilitate a wide variety of simultaneous users such as walkers, hikers, bicyclists, joggers, in-line skaters, wheelchairs, and strollers. Adequate signage is also needed on shared-use paths to inform users about potential conflicts, destinations, intersections street crossings, and regulatory information.

IPA has developed an Implementation Checklist for Walkable Communities that may be used by a community to design their pedestrian circulation system. The implementation checklist provides a comprehensive overview of pedestrian network sign features, codes and regulations governing the pedestrian environment, and operational issues such as maintenance as a basis for improving pedestrian access and overall character of the community (See Appendix A).
 When designing pedestrian circulation system, five criteria should be considered (Brandywine Conservancy, 43 and Army Corps of Engineers, 70):

- **Continuity** – The circulation system provides a continuous, unbroken network; linkages connect sidewalks, public and private trails, shared-use paths, and major destination points within the community.

- **Safety** – The system separates vehicles and pedestrians, provides safe and well-marked crosswalks, is free from obstructions, well lit, is designed to minimize conflicts among users, and is aligned with the natural topography.
- **Comfort** – The walking surfaces are accessible and accommodate all persons; they are also smooth, level, and drain well.
- **Convenience** – The network is designed to promote access to the community's major destinations; distances between origins and destinations are short and direct.
- **Visual appeal** – The design encourages pedestrian use, provides scenic interest, and provides unexpected and pleasing vistas.

Design Standards

Two questions should be considered when designing a segment of a pedestrian circulation system such as a trail or shared-use path. First, who will use the facility after it's developed? For example, designing a trail for hikers is different from designing a shared-use path that accommodates a variety of users and serves both transportation and recreation needs. Second, what is the primary purpose of the facility? Identifying the proposed uses of a facility is critical to the design, location, and construction of a walkability project. The design details of sidewalks, share-use paths, or trails, which are funded by state or federal transportation or other agency programs, must be approved by those agencies. It is important to consult with the funding agency early in the design process to ensure that the plans are prepared in conformance to agency design standards and requirements. Finally, it is important to remember that constructing a walkability project with sound design, resilient construction, and a management plan will contribute to the use, safety, and overall sustainability of a community's pedestrian circulation system.

Design Guideline Resources

There are numerous publications and technical manuals that provide design guidelines related to the alignment, materials, construction of trails, bike paths, shared-use paths, and other pedestrian and non-motorized infrastructure. There are additional sources on construction practices and sustainability of infrastructure and facilities in natural settings or environments. Some of the more helpful resources, related to trail design and construction, include:

American Association for State Highway and Transportation Officials (AASHTO) Publications
- Published in 1999, the *Guide for the Development of Bicycle Facilities* is still considered a "must have" for designing shared-use paths. These non-motorized, two-way, multi-use pathways are designed to accommodate an array of users such as bicyclists, pedestrians, in-line skaters, and wheelchair users.
  See: *www.sccrtc.org/bikes/AASHTO_1999_BikeBook.pdf*
- The *Guide for the Planning, Design and Operation of Pedestrian Facilities* provides

information on designing pedestrian-friendly communities. This guide provides guidance on the planning, design, and operation of pedestrian facilities along streets and highways. Specifically, the guide focuses on identifying effective measures for accommodating pedestrians on public rights-of-way. The primary audience for this manual is local and state planners, roadway designers, and transportation engineers, who make decisions affecting pedestrians. This guide also recognizes the effect that land-use planning and site design have on pedestrian mobility.
To order see: *bookstore.transportation.org/item_details.aspx?ID=120*

Community Trails Handbook
Although written in the context of Southeastern Pennsylvania, the handbook provides helpful guidance for individuals, community groups, and public officials who wish to establish recreation- and transportation-oriented trails in their community. The handbook provides an understanding of the use of regulatory provisions as the basis of a trail system, components of trail planning, the design process, management issues, and sample trail documents.
To order see: *www.brandywinemuseumshop.org/catalog*

Sidewalks and Shared-Use Paths: Safety, Security, and Maintenance
Prepared by the University of Delaware's Institute for Public Administration (IPA), this summary report addresses the current problems of safety, security, and maintenance associated with multi-modal facilities and add to the existing discussion of improving multi-modal facilities.
See: *dspace.udel.edu:8080/dspace/handle/19716/3255*

Trail & Path Planning: A Guide for Municipalities
Prepared as an implementation tool for Chester County, Pennsylvania's *Landscapes* comprehensive plan, this guidebook was created by the Chester County Planning Commission to assist municipalities that wish to plan for a comprehensive system of trails, and address trails and paths in their comprehensive plan, official map and ordinances.
See: *dsf.chesco.org/planning/cwp/view.asp?a=3&q=631389*

Pedestrian and Bicycle Information Center
This organization emphasizes that design elements are essential for the successful and safe operation of a bikeway, trail, or shared-use pathway. The site provides "Principles of Shared-Use Path Planning and Design," and a list of specific design guidelines for shared-use paths.
See: *www.bicyclinginfo.org/engineering/paths-principles.cfm*

U.S. Department of Transportation, Federal Highway Administration (FHWA) Publications
  • The *Designing Sidewalks and Trails for Access* manual is an excellent resource for planning and designing sidewalk and trail facilities for all users, including persons with disabilities.
    See: *www.fhwa.dot.gov/environment/sidewalks*

- The *Manual on Uniform Traffic Control Devices* defines the standards used by road managers nationwide to install and maintain traffic control devices on all streets and highways.
   See: *mutcd.fhwa.dot.gov*

Sustainable Trail Design

Sustainable trails, as defined by the Wisconsin Department of Natural Resources, minimize the need for ongoing trail maintenance by using construction materials and techniques designed for long-term self-sustaining use and by using on-site materials as much as possible. The trails begin with a good layout and design. According to the National Trails Training Partnership, core elements of sustainable trails "protect the environment, meet user needs, and require little maintenance." Poorly designed trails need to be frequently maintained to deal with erosion and trail tread degradation. By designing more sustainable trails, more visitors can be carried into a natural area with minimal impact on the surrounding ecosystem.

Sustainable trails provide a balance between positive control points such as scenic features and negative control points such as the need to preserve environmentally sensitive areas. A sustainable trail that follows the natural contours of the land, is erosion resistant, drains water better, and requires less maintenance than fall-line or flat-ground trails. Sustainable trail design includes (Brown):

- Alignment of trails that ensure that water exits the tread (area of trail cleared for walking) often and that it follows the natural topography of the land.
- Construction of trail contours, build with outslopes so water will sheet across the trail and drain from hills rather than channel down the trail.
- Average trail grades not to exceed a 10% slope.
- Full bench construction, which means that the full width of the tread is cut into the side of a hill.

Earthen-Surface-Trail Construction Rules of Thumb

According to Delaware Department of Natural Resources and Environmental Control (DNREC) trail design expert David Bartoo, trails should be created based on a balance of impact on the environment, sustainability, type of use, future maintenance requirements, and aesthetics. One of the most important factors to consider in choosing a trail location or constructing a trail bed is the effective management of water (e.g., minimizing erosion and avoiding wet areas). Tips by Bartoo, for earthen surface trail construction, are to:

- Never have trail grade (percent of slope) exceed 40% of side slope. This creates a "fall-line" trail situation, which is when water flows down hill and as a result, down the trail.
- Construct trails along and not across a contour.

- Avoid construction of trails in wet areas.
- Build bridges at stream crossings to reduce the ecosystem impact of stream bank erosion and siltation.
- Design the trail to blend in with the landscape.
- Minimize impact in all phases of the project.
- Where opportunities exist, transfer any shrubs, ferns, trees, or flowers from the original landscape to a pre-arranged location.
- Use eco-friendly materials in trail construction.
- Place native vegetation on either side of the tread.
- Clear the open space above the trail to a height of seven feet. This height is adequate for users, but at the same time minimizes the amount of sunlight penetration.
- Construct trails on the uphill side of a trees rather than the lower side. The surface roots of a tree are typically deeper on the upper side, and the base of the tree helps to stabilize the trail against creeping downhill or erosion, and also helps to keep traffic on rather than off the trail.

Do's of Earthen-Surface-Trail Building

Initial Clearing (Interview with David Bartoo)
- Check alignment for irregularities in flow and grade. Align the trail in such a way that provides as much continuous drainage as possible. Avoid unnecessary destruction of native animals, plants, and other natural and cultural resources.
- Make the trail corridor a safe width (33 - 54 inches).
- Remove woody plants, rocks, and roots from the trail tread (cleared area).
- Trimming only the lower branches or a tree to form a future canopy.
- Collect leaves and other small litter for later use. When raking, rake down the length of the trail to decrease the chance of creating a berm (a ridge that develops on the downhill side of a trail).
- Scatter all other debris as far from trail alignment as possible without damaging the habitat.

Tread Construction (Interview with David Bartoo)
- Use preliminary clearing procedures.
- Construct a full bench cut if the slideslope is over an 8% grade.
- Use the excavated dirt for later use at a pre-arranged location.
- Stock up on dirt to be reused later to re-cover the area if erosion occurs.
- Angle back-cut for better back slope stability and ascetics (2:1 minimum).
- Remove all roots and rocks unless otherwise specified.
- Trim all protruding roots within back slope and tread.
- Disperse any material not being saved as far from trail alignment as possible.
- Use saved leaves, branches, and logs to dress up the trail construction site.
- Remove all construction debris.

- Follow these steps when closing a trail or trail sections:
  - Open and make useable the new trail before closing the old trail section.
  - Loosen trail tread to encourage growing surface for plants.
  - Reshape tread to match the contour.
  - Replant the area if necessary.
  - Protect and stabilize the soil by covering the old tread with saved leaves and vegetation.
  - Block off both ends of closed-off trail section with logs and large debris.
  - Monitor the closed section for a year to prohibit use.

Resources for Earthen-Surface-Trail Design

The following are excellent online resources that provide detailed information about trail design, construction, and surfacing. These include:

National Trails Training Partnership – Sponsored by American Trails, the website offers an array of online resources on building trails and greenways: design guidelines, construction techniques, materials, trail paving and surfacing, and trailhead signs and facilities.
See: *www.americantrails.org/resources/trailbuilding*

USDA Forest Service – The 2004 online edition of the "Trail Construction and Maintenance Notebook" describes trail construction and maintenance information in an easy-to-understand fashion. It covers the basics, but it also offers detail-specific literature on different topics. Some of the subjects it talks about are planning and design, trail specifications, minimal impact of the trail on the land, and trail layout (Hesselbarth, Vachowski).
See: *www.fhwa.dot.gov/environment/fspubs/00232839*

University of Minnesota – A guide has been prepared to assist private property owners, organizations, and organizations (e.g.nature centers, youth groups, schools, and conservation clubs) that are interested in designing and constructing trails. It offers step-by-step construction methods, ways to handle trail obstacles, and recommended standards for the most common types of trails (Rathke, Baughman).
See: *www.extension.umn.edu/distribution/naturalresources/DD6371.html*

Writing Funding Proposals

Why Write a Funding Proposal?

Given today's economy and increasing demands for citizen services and programs, many municipalities are being asked to do more with less. Grants or other funding opportunities can help a municipality bridge the gap in resources to achieve community goals. Receiving grant funds can prove advantageous. A grant can enable a jurisdiction to fund a trail project or recreation program that improves the quality of life and health of citizens, but may be considered lower funding priorities than other basic municipal services. Grant funds can enable a municipality to make better use of tax dollars by paying only a portion of the total cost of a project. Grants can also provide more bang for the buck by effective leveraging of funds. When a municipality applies for a grant or writes a funding proposal, matching funds are usually required. A municipality can maximize its required match, and effectively leverage funds, by using in-kind donations (e.g., non-cash donations of equipment, labor, volunteer services, value of land) to provide their share of financial support for a project. Conversely, while grants provide financial advantages, there are also drawbacks to seeking funding. The process is often competitive and labor intensive. Writing a funding proposal requires planning and organization, involves research and data collection, and the preparation of a sound work plan and detailed budget projects.

For most municipalities, obtaining a grant to fund a program or an activity is difficult and remains an elusive wish rather than reality. In recent years, grants and funding opportunities have become more competitive as state, federal, and foundation funding has become more constrained or reallocated to new priority areas. Careful planning and preparation of a funding proposal is essential to meet the challenges of grant writing and to improve a municipality's chance for a successful grant award.

Keys to a Winning Funding Proposal

Writing a funding proposal is best accomplished with a team approach, with one person responsible for grant preparation and submission. To write a winning funding proposal, consider the following tips:

- **Complete homework** – Gather sources of information, collect data, and document citizen and political support for the proposed activity.
- **Follow the proposal/application guidelines** – Determine format of the proposal, required information, documentation requirements, funding limitations and match requirements, and submission deadlines.

- **Be concise** – Describe the need for the project, project activities, methods of implementation, measures of success, intended outcomes, and level of funding needed.
- **Define goals and objectives** – Explain what the proposed project or activity is expected to accomplish in broad terms and how/when the project will be implemented. Describe objectives to achieve the goal in realistic, measurable, and attainable terms. Goals should be consistent with the overall mission, goals, and objectives of both the municipality and funding organization.
- **Propose project results** – Indicate what the expected results of the project will be (outputs) and, what anticipated benefits the public will receive (outcomes), and other expected accomplishments that will be documented and disseminated.
- **Organize** – Follow the required, predefined format to achieve a logical flow for the proposal. Additional documentation should be included in the appendices (e.g., maps, photographs, support letters, surveys, public input, resolutions, professional drawings, plans, cost estimates). Edit the proposal for readability and provide contact information.
- **Develop good cost estimates** – Provide a future-oriented cost estimate that relates the projected budget to the project timeframe. A budget narrative must describe how each item was calculated and be in proportion to stated goals and objectives. Budget preparation should include cost estimates from contractors or engineers.

Is Your Municipality Ready to Write a Funding Proposal?

Pre-planning activities are needed before a municipality should undertake writing a funding proposal. In order to plan for proposal writing, a municipality should determine if the activity is consistent with planning documents and has the sufficient organizational capacity to administer the project or activity. Generally, a pre-application meeting is advised with the funding organization or agency to confirm that the jurisdiction has done its homework prior to the proposal process. Before writing a proposal, consider the following checklist questions regarding the plan for the project and its state of readiness.

- **Is the project consistent with overall mission, goals, and objectives?**
  - Is this project consistent with local, regional, state, or federal plans?
  - Is this project consistent with the municipality's mission, goals, and objectives and that of the funding organization?
  - Is there support for the project?
    - Political support?
    - Financial support?
    - Community support?
  - Do approved planning and financial documents (e.g., comprehensive plans, ordinances, engineering studies, concept or master plans, general operating budget, capital improvement program, transportation or mobility studies, public opinion surveys, annual reports) provide support for the proposed project or activity?

- **Is the proposed project in a state of readiness?**
  - Has feasibility of the project been assessed? Is a cost/benefit analysis needed?
  - Has a concept plan and/or master plan been prepared?
  - Has a project budget been prepared?
  - Does current zoning support the proposed land use?
  - Are pre-construction activities needed (e.g., engineering studies/surveys, site work, environmental assessments and clearances, historical preservation studies, right-of-way acquisition, utility relocation)?
  - Has an action plan and project timetable been prepared?
  - Do bid specifications need to be prepared for a contractual project?

- **Is there organizational capacity to administer the project/activity?**
  - Does the municipality have the organizational capacity and experience to administer the project/activity in an efficient and timely manner?
  - Who will administer the programmatic and financial aspects of the grant?
  - Who will implement the grant project/activities?
  - Are matching funds in place to support the project budget?

Grant Proposal–Planning Process

Once it has been determined that the proposed project is consistent with the overall mission of the organization, has adequate internal and external support, is in a sufficient state of readiness, and there is good organizational capacity, plans to prepare a funding proposal can move forward. It is often helpful to draft a concept paper, which provides an overview of the proposed project and community benefits. A concept paper can be circulated to garner letters of support, enhance outreach efforts at public hearings or workshops, and help prospective funders determine whether the project is an eligible activity for funding before time is spent preparing a proposal. Grant proposal–planning steps are listed and illustrated in the graphic below.
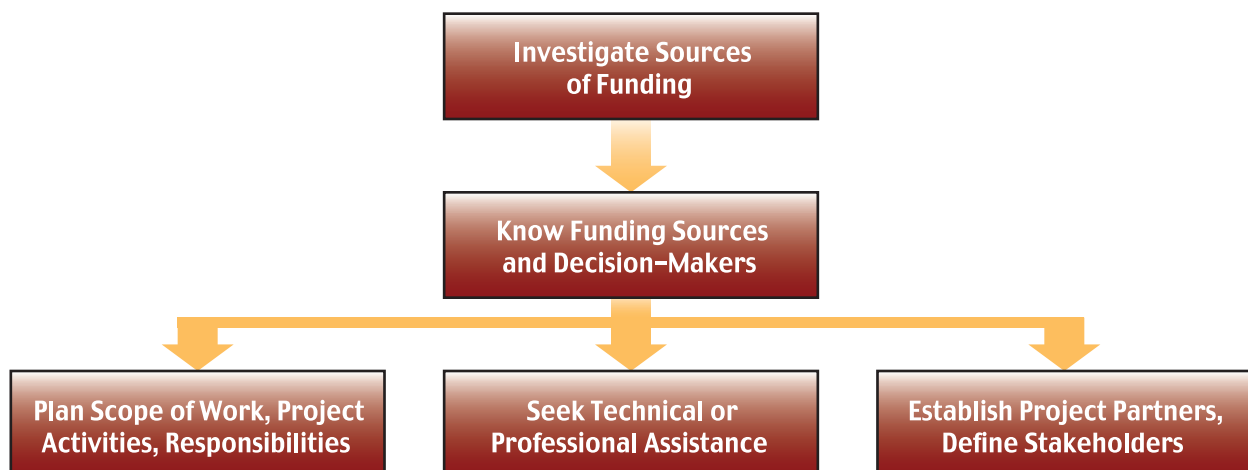
Investigate Sources of Funding

The "Technical Assistance and Funding Resources" section within this document provides an array of websites and possible sources for federal, state, and foundation grants to explore and enhance walkability of a community. Within that section, local funding strategies are suggested as possible sources of matching funds for the grant proposal. It is important to seek funding opportunities that are consistent with the mission of your organization and project goals and objectives.

Know Funding Sources and Decision-Makers

If a prospective funding source is identified, make an introductory call or schedule a pre-application meeting with the granting agency or foundation to determine:

- Is your municipality eligible for funding?
- Based on the concept paper (provided in advance) does the proposed activity meet funding eligibility criteria?
- How much funding is available, what is the average award amount, and how many applications will be awarded?
- What are key elements for a successful application?
- Does the granting agency have copies of successful grant applications or a list of organizations that have been successfully awarded grants?
- Is there a formal grant application period and deadline?

Plan the Scope of Work, Project Activities, and Responsibilities

Assemble a project team to plan the scope of work and all aspects of the proposed grant activity. The grant planning process should garner input from those who will be involved in the administration, operations, and maintenance of the project and may include department directors, financial administrators, planners, engineers, police personnel, and the public works and/or parks and recreation personnel. The scope of work should be realistic given the time period for the grant and measurable. It is helpful to prepare a timeline to identify when and who will be responsible for conducting specific activities. It is also critical at this stage to differentiate personnel responsible for implementing the programmatic aspects and administering the financial aspects of the grant.

Seek Technical or Professional Assistance

Often, smaller jurisdictions do not have the staffing resources or expertise to carry out a large capital improvement activity such as the construction of a trail system, pedestrian network, streetscape project, or park project. For activities that will be contracted, it is helpful to issue a Request for Quotation (RFQ) to obtain cost estimates for contractual services such as engineering services, contracted labor, consultant costs, appraisals, audits, or legal services. Quotations and professionally prepared cost estimates can be the basis for developing an accurate, detailed budget.

Establish Project Partners

The key to establishing partners is identifying stakeholders for the walkability project. Think about individuals or organizations that will benefit from the outcome of the project. For a trail construction project, stakeholders may include residents, families, scouting organizations, hiking or nature clubs, tourists, bicyclists, nonprofit organizations, historians, healthcare professionals or organizations, schools, businesses catering to hikers or bicyclists, community members, environmentalists, adjacent property owners, municipal boards, or committees. See the section "Identifying Stakeholders and Strategic Partners to Catalyze Change," in this resource guide for more information on developing strategic partnerships.

Anatomy of a Proposal

An effective grant proposal must convince the prospective granting agency or foundation that the proposed activities meet the funding goals and objectives of the organization, have realistic program activities and timeline, provide a detailed and balanced budget, show community support and partnerships, and demonstrate how the program is part of a long-term, sustainable strategy.

It is essential that grant applicants read the grant application guidelines and follow the prescribed format precisely. If no specific format or guidelines are provided, the proposal narrative should be no more than fifteen single-spaced pages and include an executive summary. The follow checklist outlines the anatomy of a typical grant proposal.

- **Title page**
  - Provide the name of the grant and project title.
  - Provide contact information for your municipality.
  - Include the date of submission.

- **Cover letter**

- **Required grant application form(s)**

- **Executive summary**
  - Limit this to one page.
  - Summarize the purpose of proposed grant, proposed activities, and expected results.
  - Highlight how the activity benefits the community and complements other initiatives.
  - Specify total cost of proposed project, requested funding, and matching funds.

- **Program narrative** (largest section)
  - Introduce the municipality/organization and highlight its capacity to implement the proposed scope of work and administer the grant.

- Problem statement
  - Builds on the municipality's strengths and opportunities rather than focusing on weaknesses and needs.
  - Focus on the benefits of the grant to community rather than municipality.
- Program goals and objectives
  - Provide a broad statement explaining what the grant program is expected to accomplish (goal) and specific statements explaining what will lead to the achievement of the goal (objectives).
  - Demonstrate how the program goals and objectives relate to that of the funding agency/foundation.
- Methodology/scope of work
  - Describe how objectives will be accomplished.
  - Explain the methods, activities, and outcomes of the proposed activity.
    - Who will be served and will implement activities?
    - How will programs, activities, and services be implemented?
    - When will activities be implemented (timetable)?
    - With whom will activities be conducted (e.g., partners, volunteers, cooperating agencies)?
    - What are the anticipated outcomes/outputs? How will impacts be measured or evaluated?
  - Clarify the plan for the project's future sustainability.
- Evaluation
  - Describe what will be evaluated.
  - Explain who will evaluate the activity in terms of needs, objectives, methods, and budget.
  - Detail when the data will be compiled.
  - Determine how the evaluation will be conducted.

- **Project budget/budget narrative**
  - Detail the total project total.
  - Provide sources and amounts of in-kind or cash matches.
  - Provide a breakdown of project costs by expenditure category.
  - Provide copies of estimates for project costs and professional services.

- **Appendices**
  - Include resolutions.
  - Provide supporting documentation (e.g, surveys, studies, petitions).
  - Incorporate excerpts or citations from planning documents.
  - Provide letters of support.
  - List project partners.
  - Showcase professional drawings, plans, maps.
  - Include copies of relevant newspaper articles.

Resources for Writing a Grant Proposal

Grant writing can be a time consuming and frustrating process, especially for first-time grant writers. Successful funding proposals are distinguished by writing a clear description of work activities, identifying the target audience(s) that will benefit from the activity, articulating the anticipated impact, and outlining proposed evaluation methods. The importance of organizing and editing a proposal cannot be overlooked. Failure to follow instructions, complete application forms, include required information, adhere to page limits, and submit the proposal by the deadline will lead to the rejection of a grant proposal. Useful tips and pointers on writing a successful funding proposal are detailed within the following resources.

Catalog of Federal Domestic Assistance

This website provides guidance for initial proposal development, tips for organizing and writing a grant proposal, long-term project planning, and other federal resources.
See: *12.46.245.173/pls/portal30/CATALOG.GRANT_PROPOSAL_DYN.show*

Community Tool Box

The Work Group for Community Health and Development at the University of Kansas has developed a Community Tool Box (CTB) with resources to build healthy communities. The CTB offers two types of support to promote community health and development. First, the online resource provides support to implement "best processes," or evidence-based mechanisms for promoting community change and improvement. Second, the website provides links to databases to address specific problems or needs such as promoting physical activity.
See: *ctb.ku.edu/en*

Delaware Valley Grantmakers

While this organization serves as a forum for grantmakers in the Philadelphia region and does not provide grants, the website offers resources for organizations seeking foundation grants. Online resources include tips for writing the proposal narrative, an application checklist, and a sample budget form.
 See: *www.dvg.org/grantseekers/grant_app.htm*

Foundation Center

This entity serves as the nation's leading authority on philanthropy and seeks to connect nonprofits and grantmaking organizations. The website offers resources to learn about foundations and fundraising, identify funding sources, and offers an online foundation directory for subscribers.
See: *foundationcenter.org*

Grantcraft

This website, developed by the Ford Foundation, provides tools such as publications, videos, case studies, and suggestions from donors and grant makers. The "map of the craft" is particularly helpful. It describes how to plan for grant writing, organize for impact, work with grantees, collaborate, design the grant, understand the role of a grantwriter, and be a lead player in the organization.
See: *www.grantcraft.org*

Nonprofit Guides

Provides web-based grant-writing tools for nonprofit organizations, charitable, educational, public organizations, and other community-oriented entities. Both grantmaking tips and sample documents are provided.
See: *www.npguides.org*

Technical Assistance and Funding Resources

Finding and Applying for Federal Grants

There are three primary online sources to find federal technical assistance and grant opportunities. These include:

Grants.gov

This website is the source to find and apply for federal government grants. The website provides most information for the grant-writing process. The source includes terminology, proposal writing links, among others to application packages, grantmaking agencies, and types of grants. Prospective grant applicants must call 1-800-333-0505 to register as a service user and receive a DUNS number to apply for a grant online.
See: *www.grants.gov*

The Federal Register

This is the daily publication of the Federal government that provides information on rules, proposed rules, executive orders, and notices of various Federal agencies and organizations, including grant opportunities.
See: *www.gpoaccess.gov/fr/about.html*

The Catalog of Federal Domestic Assistance (CFDA)

In addition to providing grant-writing tips, this resource provides an online database with access to all federal assistance programs available to state and local governments such as grants, loans, surplus equipment, insurance, and training. While the CFDA website provides tips for writing grant proposals, an online search engine, and detailed information on program funding, it does not provide the capability of applying for a grant online.
See: *www.cdfa.gov*

Once a possible funding opportunity is identified, the type of grant and basis for eligibility needs to be further explored. Grants are either awarded through a competitive selection process or based on a formula dictated by law. Generally, municipalities may be eligible for either of the following types of grants ("Catalog of Federal Domestic Assistance"):

- **Project or discretionary grants** – This type of financial assistance is awarded competitively to an organization that best meets a federal program's eligibility requirements, selection criteria, program priorities, funding goals and objectives.

Discretionary grants include all programs that issue RFPs, notice of competition, or grant application notice. Because these grants are competitively awarded, there is a strict application protocol and deadline.

- **Formula grants** – These federal programs provide funds as dictated by law. Formula grants may be either "categorical," where money is redistributed under strict conditions to a state or another government entity, or a "block grant," where categorical money is grouped together and redistributed to give a state or government entity some general guidelines and latitude in the use of funds.

Federal Technical Assistance and Funding Opportunities

The following technical assistance programs and grant opportunities are listed under the federal agency responsible for its administration.

Environmental Protection Agency

Building Healthy Communities for Active Aging Award – This program is designed to raise awareness about how communities can incorporate smart growth and active aging. Awards are presented to communities demonstrating the best and most inclusive overall implementation of smart growth and active aging at the neighborhood, municipal, tribal, county, and regional levels. Two types of awards are made. The Achievement Award recognizes entities that demonstrate excellence in building healthy communities for active aging. The Commitment Award recognizes communities that are planning for and beginning to integrate smart growth and active aging.
See: *www.epa.gov/agomg/bhc/awards*

Environmental Education Grants – Sponsored by EPA's Environmental Education Division (EED), Office of Children's Health Protection and Environmental Education, the grants support environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality. Most grants awarded are under $15,000.
See: *www.epa.gov/enviroed/grants.html*

National Award for Smart Growth Achievement – EPA seeks to recognize and support public entities that promote and achieve smart growth, while at the same time bringing about direct and indirect environmental benefits. Smart growth development practices support national environmental goals by preserving open spaces and parkland and protecting critical habitat; improving transportation choices, including walking, bicycling, and transit; promoting brownfield redevelopment; and reducing impervious surfaces. The award recognizes communities that use the principles of smart growth to create better places. This competition is

open annually to local or state governments and other public-sector entities.
See: *www.epa.gov/smartgrowth/awards.htm*

Smart Growth Implementation Assistance (SGIA) – This annual, competitive program provides direct technical assistance to state, regional, and local governments (and nonprofits partnering with governments) that wish to implement smart growth policies and techniques. Technical assistance is in the form of public policy analysis (e.g., reviewing state and local codes, school siting guidelines, transportation policies) or administering public participatory processes (e.g., visioning, design workshops, alternative analysis, build-out analysis).
See: *www.epa.gov/smartgrowth/sgia.htm*

Federal Highway Administration – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Congestion Mitigation and Air Quality (CMAQ) – The CMAQ program, continued in SAFETEA-LU through 2009, provides funding for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available for areas that do not meet the National Ambient Air Quality Standards (nonattainment areas) as well as former nonattainment areas that are now in compliance (maintenance areas). Projects providing facilities for pedestrians and bicycles may be funded under CMAQ if they can cost-effectively reduce emissions from highway sources. State and local governments, public agencies, incorporated private firms, and nonprofit entities are eligible.
See: *www.fhwa.dot.gov/safetealu/factsheets/cmaq.htm*

Recreational Trails Program – Funds are available to develop, construct, maintain, and rehabilitate trails and trail facilities. Trail uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. Eligible activities include the maintenance and restoration of trails, development and rehabilitation of trailside and trailhead facilities, purchase and lease of trail construction and maintenance equipment, construction of new trails, acquisition of easements and fee simple title to property, assessment of trail conditions for accessibility and maintenance, development and dissemination of publications and operation of trail safety and trail environmental protection programs, and state costs for administering the program. Authorized funding nationwide is $80 million in FY 2008 and $85 million in FY 2009.
See: *www.fhwa.dot.gov/safetealu/factsheets/factsheets-safetea-lu.doc*

Safe Routes to School Program – Section 1404 of SAFETEA-LU establishes a national Safe Routes to School program to fund state programs to actively encourage walking and bicycling to school; crosswalk improvements; safety training programs; and public awareness campaigns to educate students, parents, and drivers. The Delaware Department of Transportation (DelDOT) administers the program for the state.

See:
www.deldot.gov/information/community_programs_and_services/srts/pdf/safe_routes_to_school
_guidelines.pdf

   Contact Delaware's Safe Routes to School Program coordinator Sarah Coakley, at 302-760-
   2236 or *sarah.coakley@state.de.us*.

Scenic Byways – SAFETEA-LU provides funding for roads having outstanding scenic, historic,
cultural, natural, recreational, and archaeological qualities that have been designated as National
Scenic Byways. Eligible projects may include the development and provision of tourist
amenities and construction of bicycle and pedestrian facilities, interpretive facilities, overlooks,
and other enhancements for byway travelers. In Delaware, the Brandywine Valley Scenic
Byway was designated in 2005 and is eligible for funding.
See: *www.byways.org/explore/byways/57779/designation.html*

   Contact DelDOT's scenic byways coordinator at 302-760-2121.

Transportation, Community, and System Preservation Program (TCSP) – This program
provides funding for a comprehensive initiative including planning grants, implementation
grants, and research to investigate and address the relationships between transportation,
community, and system preservation and to identify private sector–based initiatives. States,
metropolitan planning organizations, local governments, and tribal governments are eligible for
TCSP discretionary grants to plan and implement strategies that improve the efficiency of the
transportation system, reduce environmental impacts of transportation, reduce the need for
costly future public infrastructure investments, ensure efficient access to jobs, services and
centers of trade, and examine development patterns and identify strategies to encourage private-
sector development patterns. Authorized funding nationwide is $61.25 M in FY 2008 and
$61.25 M in FY 2009.
See: *www.fhwa.dot.gov/tcsp/pi_tcsp.htm*

Transportation Enhancement (TE) – The Transportation Enhancement Program was
developed to fund "non-traditional" projects designed to strengthen the cultural, aesthetic, and
environmental aspects of the nation's intermodal transportation system, which builds on the
foundation of ISTEA and TEA-21. Funded projects must be related to surface transportation,
enhance the travel experience, increase the quality of life in American communities, and fit into
at least one of the eligible categories of funding. Authorized funding nationwide is $639 M in
FY 2008 and $511 M in FY 2009.
See: *www.enhancements.org/profile_search.asp*

   Contact Delaware's TE Coordinator Jeff Neizgoda at 302-760-2178 or
   jeff.niezgoda@state.de.us.

U.S. Department of Housing and Urban Development (HUD)

Community Development Block Grant (CDBG) Program – HUD awards grants to entitlement community grantees to carry out a wide range of community development activities directed toward revitalizing neighborhoods, enhancing economic development activities, and providing improved community facilities and services. CDBG funds may be used for the construction of public facilities and improvements, such as streetscape projects. The CDBG must directly benefit low-to-moderate income persons and/or geographic areas.

- In **Kent and Sussex Counties**, the CDBG program is administered by the Delaware State Housing Authority (DSHA). DSHA-managed programs serve municipalities and county governments in Kent and Sussex Counties only, excluding the City of Dover. For more information, contact Kimberly Brockenbrough at 302-739-4263 or *kimb@destatehousing.com*.

- In **New Castle County**, the Community Development and Housing Division of the Department of Community Services is responsible for managing and administering the federal CDBG Program for New Castle County (with the exception of the City of Newark). Nonprofit agencies or municipalities in New Castle County may contact Charlotte Gilbert, Community Services Administrator, at 302-395-5618 for more information.

U.S. Department of the Interior, National Park Service (NPS)

Challenge Cost Share Program (CCSP) – This program is designed to increase participation in the preservation and improvement of National Park Service natural, cultural, and recreational resources in all authorized NPS programs and activities and on national trails. Federal partners work together on projects with mutually beneficial outcomes. The CCSP is a matching fund program with a maximum award of $30,000. Projects selected should be able to be completed within one year. One-third of the CCSP funding is designated for National Trails System Projects such as National Scenic and Historic trails, National Scenic and Historic Trails in parks, National Recreation Trails, and rail-trail projects.
See: *www.nps.gov/ncrc/programs/ccsp*

Land & Water Conservation Fund (LWCF) – The LWCF program provides matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program is intended to create and maintain a nationwide legacy of high-quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States. Grants to states and localities, approved under the LWCF program, have funded parks acquisition, development, and planning of outdoor recreation opportunities in the United States. To be eligible for funding, each state must prepare and regularly update a statewide recreation plan (SCORP).   Each state then

initiates a statewide competition for available funding. For information on the federal program, See: *www.nps.gov/ncrc/programs/lwcf*

   See the "State Technical Assistance and Funding Opportunities" section of this document for information on the Delaware Land and Water Conservation Trust Fund grant program.

Pathways to Healthy Living – The Rivers, Trails, and Conservation Assistance (RTCA) program of NPS is embarking on a new nationwide initiative to serve as a catalyst to local groups and communities that need assistance planning trails and greenways that encourage regular physical activity. RTCA helps partners navigate the planning process, convert ideas into action, and assist with the development of concept plans and organizational capacity. See: *www.nps.gov/ncrc/portals/health/healthyliving.pdf*

Preservation America Grants – The Preserve America matching-grant program provides planning funding to select Preserve America Communities to support preservation efforts through heritage tourism, education, and historic preservation planning. See: *www.nps.gov/history/hps/hpg/PreserveAmerica*

Rivers, Trails, and Conservation Assistance Program – RTCA provides technical assistance only to community groups and local, state, and federal government agencies to conserve rivers, preserve open space, and develop trails and greenways. The RTCA staff offers assistance for recreation, conservation, and trail projects to build partnerships, assess resources, develop concept plans, engage citizen participation, identify potential sources of funding, create public outreach, organize a group, and provide conservation and recreation information. Examples of assistance projects focus on trail and greenway planning, open space protection, river conservation, watershed planning, and rail-trail conversions. See: *www.nps.gov/ncrc/programs/rtca*

Wild and Scenic Rivers Program – This program federally designates selected rivers in the United States for their "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values… to be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." The only river in Delaware designated as a Wild and Scenic River is the White Clay Creek. This designation provides activities, described in the White Clay Creek's Management Plan, to be eligible for special funding opportunities, which may include greenway and trail development. See: *www.nps.gov/nero/rivers/riversfunding.htm*

Types of State Grants

State technical assistance and funding programs may be either funded by federal dollars or

authorized as an appropriation by state law. The following terms help prospective grant applicants understand the type of funding award offered by a state government ("Grant Terminology").

Federal Pass-Through Money

The federal government allows states to pass-through federal grants to redistribute to local governments, nonprofit organizations, or institutions.

Grants-in-Aid

Funds may be appropriated in a grant-in-aid bill approved by state law or an annually authorized act.

Subaward

A state government may also assign part of its federal grant award to a local government in the form or a sub-grant or subaward.

Trust Funds

A state government may establish by law a trust fund, which authorizes funding or grant awards for a designated purpose or activity to eligible entities, as defined by the code requirement.

State Technical Assistance and Funding Opportunities

Delaware Department of Natural Resources and Environmental Control

Delaware Land and Water Conservation Trust Fund – The Greenway and Trail Program provides annual grants to municipal and county agencies. Grants may be awarded for projects such as land acquisition, greenway corridor acquisition or development, planning and design of parks or trails, or greenway and trail acquisition and development.
See: *www.destateparks.com/greenway/Grants/DTFGrant.htm*

Delaware Department of Transportation

Community Transportation Fund – This fund provides for maintenance and limited construction of transportation thruways, which include repairs to streets, curbs, walkways and/or sidewalks, bikeways, signage, landscaping, signalization, transportation enhancement projects, and safety projects. All local governments, state agencies, and conservation districts that have either municipality- or state-maintained roads may apply. Eligible entities should contact their

state legislator to apply for funds.

Contact Jennifer Pinkerton at DelDOT at 302-760-2071 or *jennifer.pinkerton@state.de.us*.

Delaware Economic Development Office (DEDO)

Delaware Main Street Program – Based on the National Main Street Center's four-point approach to revitalization, the Delaware Main Street Program provides technical assistance and training to Delaware's Main Street communities. The Main Street approach is a program of economic development designed to help communities retain and expand existing businesses and attract new businesses while improving the appearance, function, and image of the downtown. One benefit of the Main Street approach is enhanced walkability of a town's central business district.
See: *www.dedo.delaware.gov/MainStreet/httpdocs*

Contact Delaware Main Street Program coordinator Diane Laird at 302-739-4271.

Delaware Health and Social Services

Preventive Health and Health Services (PHHS) Block Grant – One of the three Delaware health programs funded by the PHHS Block Grant is the Community Health Promotion Programs–Healthy Communities. PHHS Block Grant funds are used in recruiting, hiring, and paying salaries for staff that support prevention programs in local communities. Funds are also used to implement activities aimed at prevention of obesity, promoting fruit and vegetable consumption, and promoting physical activity.

Contact Fred Breukelman, PHHS Block Grant Coordinator at 302-741-1010 or *fred.breukelman@state.de.us*.

Office of Management and Budget (OMB)

Community Redevelopment Fund – This fund is a matching capital-grant program administered by OMB with the assistance of the Office of the Controller General. Local governments can receive up to 40 percent of project costs to be used for community redevelopment, revitalization, and capital projects that will improve the economic, cultural, historical, social, and recreational health of Delaware's communities.
See: *budget.delaware.gov/documents/crf_application1.doc*

Livable Delaware Grant Funding – Administered by the Office of State Planning Coordination, the Livable Delaware Grant provides a 50 percent matching grant to local governments for the development of comprehensive plans, zoning and land-use ordinances, and mapping and GIS projects. Trail and path planning can be addressed in a local government's

comprehensive plan, official map, zoning ordinance, or subdivision ordinance.
See: *stateplanning.delaware.gov/services/grants.shtml*

Local Funding Strategies

Local governments are using traditional financing and more innovative approaches to generate funds to support a walkability project. Some of the financing techniques may raise funds, which can be used for a cash or in-kind match to federal or state grant funding.

Annexation Agreements

A local government in the process of annexing a parcel of property can opt to negotiate with a developer for an annexation agreement that will control the timing of the annexation and the contributions to be made by the developer to the jurisdiction. Since annexation is a voluntary act, local governments are free to negotiate with the developer for walkability enhancements, such as residential street design that promotes connectivity, pedestrian-friendly design standards, and/or trails, walkways and other pedestrian amenities (Persky and Wiewel, 74).

Assessments

Many local governments have ordinances that allow the town to assess property owners, whether in a business district or residential area, for the repair or installation of infrastructure, such as sidewalks or pedestrian walkways. This is particularly important in the revitalization of downtowns where the design and construction of a streetscape project should be bid out to improve economies of cost, pedestrian-friendly orientation, and attractive appearance.

Bonds

Bonds are typically used for long-term debt when financing large capital projects, such as trail construction or pedestrian improvements. Public officials must ask citizens to approve debt financing of a project through a bond referendum, or vote. Since debt ties up revenue in future budget cycles, debt-financed projects must be well planned and executed (Vogt, 3).

Capital Improvement Program (CIP)

A capital-improvement program, or a capital investment plan, is a plan for capital expenditures of a government to be incurred each year over a fixed period of future years. While policy guidelines vary, a CIP generally is an annual, five- or six-year projection of projects or purchases costing at least $10,000. The first year of a CIP is incorporated into the annual operating budget of a government. Many local governments have initiated a yearly appropriation for greenway and trail development in their capital improvements program under

a Parks and Recreation category of expenditures. This funding can be used to match either federal or state grant opportunities. A good CIP is a combination of a:

- **Policy decision**, made by the city council or legislative body, based on citizen input and staff recommendations on how to allocate resources and at what level of expenditure.
- **Final plan** that documents revenue and expenditure requirements needed to carry out programs.
- **Planning document** designed to communicate and coordinate the municipality's planned capital requirements for projects over a multi-year period. The plan integrates financial and physical planning of significant investments in infrastructure or in a town's services or programs.

A CIP should be consistent with other key municipal policy documents, such as the comprehensive plan and the zoning ordinance. It enables the municipality to finance future parkland or new infrastructure, maintain or improve existing infrastructure, or construct major facilities that promote walkability. Local government capital funds are critical in securing federal or state investments in local communities through matching grants and other funding opportunities.

Examples of capital outlay, or major projects that may be included in a town's CIP, include:

- Parkland acquisition.
- Construction of trails, shared-use paths, or sidewalks.
- Construction of downtown streetscape projects.
- Any recreation or walkability project that requires a debt obligation or borrowing.
- Design and construction of infrastructure improvements that improve pedestrian accessibility, safety, crossings, and/or facilities.

Conservation and Preservation Easements

The state of Delaware adopted a Conservation Easement Act in 1996. Conservation and preservation easements may be acquired by any governmental body, charitable organization, or trust. The purpose of a conservation easement is to retain or protect natural resources and open spaces. Building upon this law, local governments may require additional restrictions or separate conservation easement protection for trails.
See: *stateplanning.delaware.gov/livedel/imp_plans/impl_plan_dnrec.pdf*

Land Set-Asides

Municipalities may enact as part of their subdivision and land development ordinance a provision that requires developers to set aside part of the new development for recreation or trail use (Brandywine Conservancy, 38). The intent of these provisions is to develop a municipal trail

network connecting residential developments. Under this scenario, the developer would be required to construct a trail within the development to the specifications of the local government. To ensure that there is adequate funding set aside and construction meets required standards, a bond or escrow fund should be required. Once the development is completed, the homeowners' association assumes responsibility for trail maintenance and management.

Mandatory Dedications or Fee-in-Lieu-of Requirements

Municipalities may adopt regulatory tools that mandate a developer to dedicate public open space for parkland/trails, or pay a fee in lieu of the land contribution. The dedicated parkland must be accessible to residents of the proposed development and open to the public. Fees obtained through a fee-in-lieu-of provision must be earmarked for specific recreational facilities (such as a trail system), deposited into an interest-bearing account, and expended for the intended recreational facility (Brandywine Conservancy, 38).

Tax-Increment Financing

This financing strategy allows public improvement projects to be financed by future tax revenues within a designated area such as a central business district. Since a well-designed, walkable downtown provides a sense of community and promotes its interest as a destination, tax increment financing targets a central business district to support a downtown streetscape project.

Transfer of Development Rights

This growth management tool can be adopted by a municipality to allow environmentally sensitive and open-space areas to be protected and preserved from development, while development rights are shifted to areas designated for growth. According to the Delaware Valley Regional Planning Commission, "Transfer of Development Rights provides incentives to land owners, developers, and the community. Developers can build at higher densities than typically allowed in the 'receiving area,' which translates to higher profits and better infrastructure service to their developments" (Delaware Valley Regional Planning Commission, 2).

Foundations

Generally, there are three types of foundations. Private foundations limit funding to specific fields of interest and are quite competitive to receive. Corporate foundations make contributions to activities and programs related to the company's goals, employee volunteer commitments, and within the community where they are geographically located. Community foundations target philanthropic investment to nonprofit entities within the community that they serve. Donations from foundations may be in the form of land or easements, volunteer commitments, supplies, or cash grants.

The Foundation Center

This website is an excellent resource for new grantseekers to find sources of information on private philanthropy in the United States. The website provides individual and nonprofit grantseekers with online training and tutorials, tools and resources, and tips for proposal writing. See: *foundationcenter.org*

Corporate/Community Foundations

The following corporate/community foundations have a proven track record for providing support to nonprofit organizations for environmental or recreation-oriented initiatives.

AstraZeneca – USBC Health & Community Alliances (HCA) develops and implements local corporate philanthropy programs of AstraZeneca to nonprofit organizations with registered 501 (c) (3) status. Community Services is one of the five categories of charitable contributions that USBC HCA makes to nonprofit organizations located within AstraZeneca's U.S. headquarters area. Contributions support efforts that focus on family well-being, people with mental and physical challenges, youth guidance and development, diverse populations, public safety, health and environment, and capacity-building in nonprofit organizations.
See: *www.astrazeneca-us.com/content/aboutAZ/azInTheCommunity/communityAffairs/ astrazeneca-how-to.asp*

Bank of America, N.A. – Bank of America's corporate philanthropy program directs resources and supports high-impact initiatives and organizations to build strong communities and neighborhoods. Local Grants provide support to organizations dedicated to making their neighborhoods better places to live. Bank of America's signature Neighborhood Excellence Initiative recognizes, nurtures, and rewards community-based organizations and individuals working to improve their communities.
See: *www.bankofamerica.com/foundation/index.cfm?template=fd_grantprograms*

Carl M. Freeman Foundation – The Freeman Foundation provides capacity-building grants between $500 and $2,000, major grants ranging from $5,000 to $30,000, and special one-time or multi-year grant awards ranging from $250 to $2,000,000 to IRS- recognized tax-exempt, nonprofit organizations serving the residents of Sussex County.
See: *www.freemanfoundation.org/CarlMFreemanFoundation/Grants/tabid/176*

Conservation Alliance – This group of outdoor industry companies supports grassroots environmental organizations dedicated to funding conservation projects initiated through community-based campaigns. In 2007, the Conservation Alliance awarded $800,000 to 29 conservation organizations.
See: *www.conservationalliance.com/grants*

Delaware Community Foundation – The Delaware Community Foundation's Youth Philan-thropy Fund (YPF) grants specifically focus on program initiatives that promote the physical and emotional well-being of school-aged children. Each county has a specific area of focus.
See: *www.delcf.org/Apply_4_1.htm*

DuPont – DuPont supports programs and organizations that meet the needs of communities in which the company operates. Programming emphasis includes educational programs, culture and the arts, environmental initiatives, human and health service organizations, and civic and community activities. Funding programs include the DuPont Office of Education, DuPont Community Fund, and DuPont Volunteer Recognition Program.
See: *www2.dupont.com/Social_Commitment/en_US/outreach*

Groundwork USA Pilot Funding – Groundwork USA is a network of independent, not-for-profit, environmental businesses. Locally organized and controlled, Groundwork Trusts provide cost-effective project development services focused on improving their communities' environment, economy, and quality of life. Services include community planning, project management, design and construction, fundraising, and support for maintenance. Partnerships include federal agencies such as the National Park Service Rivers and Trails program. This program selects 1-2 new communities annually to participate in the Groundwork USA Initiative based on an evaluation process and submission of a successful proposal.
See: *www.groundworkusa.net/GW_USA/news.html*

International Paper Environmental Excellence Awards – International Paper, in partnership with The Conservation Fund, annually honors the conservation accomplishments of two individuals. Each International Paper Environmental Excellence Award is accompanied by an unrestricted $10,000 grant, made possible by support from The International Paper Company Foundation. A Conservation Partnership Award and an Environmental Education Award are presented annually.
See: *www.conservationfund.org/node/246*

Longwood Foundation – The Longwood Foundation provides capital, challenge, multi-year, and seed money grants. Giving priorities include nonprofit organizations that focus on cultural, historical, educational, community, and health-related community initiatives.

   Contact: Executive Director Peter Morrow at 302-654-2323.

National Trails Fund – In 1998, the American Hiking Society created the National Trails Fund to support grassroots organizations seeking to establish, maintain, and protect foot trails in America. Typically ranging from $500 to $5,000 per project, the awards provide funds to local organization for land acquisition, constituency-building campaigns, and traditional trail work projects.
See: *www.americanhiking.org/alliance/fund.html*

Nike, Inc. - Part of Nike's corporate giving program focuses on programs that support youth and physical activity. Nike provides grants to nonprofit organizations in communities where the company has a significant employee or business presence (e.g., Nike's outlet presence in coastal Delaware). Specific funding initiatives by Nike include:

- **NikeGO** – Nike has launched several initiatives to promote increased physical activity and fitness of youth. An in-school program, NikeGO PE is an innovative physical education program that provides elementary schools with the tools to build an inclusive physical education that emphasizes constant movement, wellness, and healthy lifestyles. NikeGO also sponsors after-school physical activity programs and created NikeGO Places to recycle athletic shoes into surfaces for recreation facilities.

- **Nike's Bowerman Track Program** – The Bowerman Track Renovation program provides matching cash grants to nonprofit, community-based organizations that are youth-oriented and seek to refurbish or construct running tracks. The program distributes approximately $200,000 matching grants annually and preference is given to projects using Nike Grind technology, which incorporates recycled athletic shoes in the track surface.

- **Jordan Fundamental Grant Program** – This program is designed to recognize outstanding teaching and instructional creativity in public secondary schools that serve economically disadvantaged students.

See: *www.nike.com/nikebiz/nikebiz.jhtml?page=26*

Playful City USA – KaBOOM! is a national nonprofit organization that envisions a great place to play within walking distance for every child in America. Playful City USA rallies communities to achieve better public policy, funding, and public awareness for increased play opportunities. It also provides resources, training, challenge grants, and publications for communities seeking to plan a new play space for their community.
See: *www.kaboom.org/Advocate/PlayfulCityUSA/tabid/159*

Recreational Equipment Incorporated (REI) Environmental Grants – REI's charitable giving focuses support in the areas of local community conservation and outdoor recreation programs, with engaging youth as a priority. Nonprofit organizations may apply for either a conservation grant or outdoor recreation grant, but they must be nominated by an REI employee. Unsolicited grant requests are not accepted. In 2007, REI funded 360 groups for an annual total of $3.5 million in grants. Grants to groups are generally about $5,000.
See: *www.rei.com/aboutrei/gives02.html*

The Conservation Fund – Together with other partners in conservation, The Conservation Fund supports initiatives that achieve conservation goals, connect the community to their environment, finance local conservation efforts, advance resource-based community

development, and protect parks and community green spaces. The Conservation Fund is spearheading a new initiative, National Forum on Children and Nature, to identify and invest in projects across the country that demonstrates how kids can rediscover the great outdoors.
See: *www.conservationfund.org/awards_and_grants*

The Funders' Network for Smart Growth and Livable Communities – This nonprofit, nonpartisan organization provides philanthropic support to organizations seeking to improve development decisions and growth policies for more livable communities. The network targets funding to address communications, community leadership, regional and neighborhood equity, transportation, green buildings and neighborhoods, and healthy people and places as they related to smart growth and livable communities.
See: *www.fundersnetwork.org*

The Kodak American Greenways Award Program – Eastman Kodak, The Conservation Fund, and the National Geographic Society provide small grants to stimulate the planning and design of greenways in communities throughout America. The annual grants program was instituted in response to the President's Commission on Americans Outdoors recommendation to establish a national network of greenways. Made possible by a generous grant from Eastman Kodak, the program also honors groups and individuals whose ingenuity and creativity foster the creation of greenways.
See: *www.conservationfund.org/node/245*

The Wal-Mart Foundation – Wal-Mart relies on its local associates to direct financial and volunteer resources to assist organizations that make a positive difference in the local community. Wal-Mart associates can direct funds to qualified nonprofit organizations, schools, religious organizations, government agencies, and civic and veterans groups for projects directly benefitting the community. Interested applicants should contact their local Wal-Mart store or Sam's Club.
See: *walmartstores.com/GlobalWMStoresWeb/navigate.do?catg=751*

WSFS – The WSFS Community Relations Program focuses on strengthening local organizations and improving the quality of life in the communities they serve. Philanthropic and volunteer support is provided to nonprofit organizations.
See: *www.wsfsbank.com/about-wsfs.aspx?id=2004*

Local Support

Many large local employers and local businesses will make small grants (a few hundred to a few thousand dollars) or contributions to activities and programs related to company goals or to support programs that enhance community life. Funding support may be in the form of a cash grant or in-kind donation that may be used help make up the local "match" for grant funding.

How Recreation Programming Encourages Use of Infrastructure, Trails, or Walkable Facilities

What is Recreation Programming?

"If you build it, they will come" may have worked for Kevin Costner in the film *Field of Dreams*, but it cannot be assumed that community members will actively seek fitness or engage in healthy lifestyle opportunities once infrastructure (e.g., trails, sidewalk projects, streetscape enhancements, shared-use paths, recreation facilities) is built. More success can be anticipated if a large number of community members are involved with the process from start to finish. In order for the community to see the benefit in using a particular infrastructure, trail, or facility, it is necessary to engage community members, educate them on the benefits of healthy living, involve citizens in initiatives to create active and healthy communities, and initiate community partnerships. While physical changes to the environment provide the infrastructure needed for physical activity, recreation programming promotes the social change for active and healthy lifestyles ("Healthy Communities Tool Kit").

Recreation programming is "designing and delivering recreation and leisure services" (Rossman and Schlatter, viii). It creates active and healthy lifestyles through recreation and fitness experiences. The practice of recreation programming is created around the belief that parks and exercise enhance the social, emotional, and physical qualities of life. Traditionally, the mission of parks and recreation departments or community-based recreation organizations was to provide access to local parks, open spaces, and recreation opportunities to provide leisure experiences. Recreation programming originally focused on providing leisure activities such as visual arts and crafts, athletic leagues and sports programs, fitness classes, dance, nature appreciation, and special events.

Increasingly, recreation programming involves a complex set of delivery formats and techniques. Today, many park and recreation departments and recreation organizations are joining forces with community health organizations and public health practitioners to launch educational programs geared toward increased physical activity and a healthier lifestyle. In fact, a recent survey by the International City/County Management Association (ICMA) indicates that nearly 90 percent of city managers feel that parks and recreation departments should have a leading role in developing community facilities and recreation programs that are conducive to an active lifestyle ("Inactive America: What Can Parks Do?").

Listed below are major park and recreation organizations that are assisting communities in initiating and sustaining healthy communities ("Mission, Vision, Goals").

Major Organizations Engaged in Recreation Programming

National Recreation and Park Association (NRPA)

NRPA was created to promote awareness and support for recreational facilities, parks, and leisure services to create social stability in a community and the physical/mental health of individuals. It also facilitates the development, maintenance, and expansion of social and relevant environmental public policies that support recreation programming through parks and facilities. The association also collects and cultivates a body of knowledge that helps parks and recreation professionals improve the delivery of service, increase the understanding of recreational behavior, and provide outreach to community members.

NRPA has embarked on several initiatives to advocate the use of parks to combat obesity and promote physical activity. "Hearts 'N Parks" is a joint program of NRPA and the National Heart, Lung, and Blood Institute. The goal of the program is to use local parks as the setting for family-oriented health education programs designed to promote healthy eating, physical fitness, and participation in recreational activities ("Inactive America: What Can Parks Do?").

NRPA has also aligned itself with many other organizations such as the American Heart Association, Institute for Cancer Prevention, East Coast Greenway Alliance, and Preventive Cardiovascular Nurses Association to advocate park and recreation grant funding for state and local governments. The groups recognize the need for sustained levels of grant funding to target programs that combat rising mortality due to physical inactivity and poor diet. The National Center for Chronic Disease Prevention and Health Promotion observed that "characteristics of our communities such as the accessibility and location of parks, trails, sidewalks, and recreation centers…may play an even greater (than social environments) role in promoting or discouraging an individual or family level of physical activity." A focus of NPRA and its partners has been to lobby collaboratively for support of active recreation programs, which improve mental health and reduce feelings of depression and anxiety ("Health Organizations and Parks and Recreation Advocates Unite").

In addition, NRPA created the "NRPA Health Management Resource: Strategies for Sustainability." With real-life examples and resources to aid implementation, NRPA hopes to help people initiate and sustain healthy changes within a community. Some of the resources that the guide offers demonstrate the role of community design in the relationship between transportation and health, the economic benefit of trails, how to start a walking program, and how to determine the walkability of communities ("Health Management Practice Resource").

YMCAs

YMCAs across America are urging people of all ages to become active through the national

organization Activate America. Created by the YMCA, the Pioneering Healthier Communities (PHC) project has been funded by $1.4 million from the Centers for Disease Control and Prevention. The plan of the project is to bring important health issues into the national policy debate arena and support local communities in developing more effective approaches to promoting healthy lifestyles. More specifically, goals of PHC include ("YMCA Leads the Way to Healthier Communities"):

- Changing the environment of after-school programs implemented by the YMCA and other community organizations so kids participate in physical activity and are offered healthy foods such as fresh fruits and vegetables and water.
- Influencing policymakers to put physical education back in schools and include physical activity in after-school programs.
- Building new or enhance existing walking/biking trails and sidewalks for residents to be active.
- Providing opportunities for residents to purchase and consume fresh fruits and vegetables through community gardens, farmers markets, and other activities.

PHC recognizes that the challenge in changing a behavior is the lack of readiness to make that particular change. Even when communities are ready, the real challenge is creating a change that is long lasting. The initiative advocates ten lessons for creating sustainable, healthy changes in communities. Five of those lessons, in particular, assist communities in making sustainable health changes through recreational programming ("Pioneering Healthier Communities"):

- **Seek technical assistance**, tools, and advice from experts, before programming starts, to determine the right methods to improve healthy eating and active living. This helps communities create programs that have a lasting effect on community members' quality of life. Expert advice is needed because political, civic, and other community leaders often find that there is not just one solution, but many that can together make an impact.

- **Involve a diverse team from the private, public, and nonprofit sectors** to ensure a joined success. That way, different parts of the plan can be handled by those who have strong ties to the particular department (e.g., program design and delivery, policy and regulatory change, communications, urban planning and design, and evaluation). Communities can also involve organizations with access to large audiences.

- **Ensure sustainability of the program** by incorporating individual team goals in the overall goal of the program. It is important for communities to remember that each part of the team is bringing a different goal to the table and to bring the team together around shared goals that do not forgo those individual objectives of the organizations involved.

- **Enhance the delivery systems by using team partners** at various branches or sites of the organization. If the partner organizations make a commitment to creating a healthier

environment at their own work site, they make a lasting contribution for sustainability and help to make the healthy choice equivalent to the easy choice.

• **Create policies and systems for sustainable change that impact an entire population** instead of just those people participating in a program. Programs alone do not create lasting change, but they are necessary to build trust among members of the team and create a shared vision for a healthier community.

National Organizations Supporting Healthy Community Initiatives

Other national public service organizations are recognizing that creating healthy communities requires support and advocacy among community leaders, elected officials, public health practitioners, transportation engineers, land-use planners, and citizens. The following organizations are mobilizing stakeholders to develop public policies, utilize existing or create new pedestrian-oriented infrastructure, establish innovative recreation programs, and spur social change to create healthier community environments.

Active Living Resource Center – The mission of the Active Living Resource Center is to provide technical assistance to create more active and more bicycle- and pedestrian-friendly communities. The website provides an online library of resources, a directory of experts, regional success stories, and examples of program initiatives to promote active lifestyles and encourage physical activity of children.
See: *www.activelivingresources.org*

American Hiking Society – This national organization is dedicated to promoting and protecting America's hiking trails, striving for trail advocacy, encouraging stewardship of hiking trails through volunteer vacations, and forming alliance hiking organizations.
See: *www.americanhiking.org*

American Public Health Association – Founded in 1972, the American Public Health Association (APHA) aims to protect Americans from preventable health threats and attempts to make sure that community-based health promotion, disease prevention activities, and preventive health services are all readily available throughout the United States. APHA strives to create a unified voice through many different areas of healthcare-related professions and people who care about their own health and the health of others.
See: *www.apha.org*

American Trails – This is the only national, nonprofit organization that works on behalf of all trail interests like hiking, biking, water trails, horseback riding, four-wheeling, and cross-country skiing. Their goal is for all trail interests to come together in support of America's trails. They worked with the National Park Service, the USDA Forest Service, Bureau of Land

Management, U.S. Fish and Wildlife Service, and other organizations to revitalize the National Recreation Trails program. American Trails also prints the American Trails Magazine and provides resources such as trail planning and building, trail promotion, management of trails, the impact of trails, and how to educate communities about trails. On their website, American Trails helps raise awareness of resources to locate funding for any trail-related projects. See: *www.americantrails.org* or the National Recreation Trails database (*tutsan.forest.net/trails*)

America Walks – This organization consists of grassroots advocacy groups dedicated to creating more walkable communities. This is done through creating community pedestrian advocacy groups that in turn educate the public on the benefits of walking and, when necessary, act as a voice for walking advocates. The website offers resources referring to pedestrian and bicycle education, pedestrian advocacy, safe built environments for children, and tools for pedestrian advocates. See: *www.americawalks.org*

Centers for Disease Control and Prevention (CDC) – CDC's Active Community Environments Initiative promotes walking, biking, and the development of neighborhood recreation facilities. It was developed with data concerning public health, urban design, and transportation planning. The initiative helps with characteristics of communities such as proximity of facilities, street design, amount of housing, and availability of prime pedestrian and bicycling conditions along with public transit. See: *www.cdc.gov/nccdphp/dnpa/physical/health_professionals/active_environments/aces.htm*

Center for Livable Communities – The Local Government Commission (LGC) is a nonprofit organization that provides resources, technical assistance, and networking to local elected officials and other dedicated community leaders who are working to create healthy, walkable, and resource-efficient communities. LGC promotes active living communities, which are those designed to provide opportunities for routine daily physical activity by people of all ages and abilities. A nationwide initiative of the LGC is the Center for Livable Communities. The Center for Livable Communities helps local governments and community leaders to be proactive in their land use and transportation planning and adopt programs and policies that lead to more livable and resource-efficient land-use patterns. See: *www.lgc.org/center*

Healthy Transportation Network – This organization works with communities to create safe conditions for bicycle and pedestrian behaviors, encourage more biking and walking as options for public transportation, and create communities that are walkable and bicycle-friendly. The network provides "successful stories" for local elected officials, land-use planners, transportation engineers, and community members. See: *www.healthytransportation.net/about.html*

International City/County Management Association (ICMA) – The Active Living

Ambassador's program is a peer network among ICMA members interested in building healthy communities. Monthly electronic updates are provided to ambassadors on topics of healthy eating, healthy communities, and active-living-related initiatives. Ambassadors are asked to share this information with other regional local government leaders. The program provides a forum for sharing active living and recreation program information with other communities to promote healthy lifestyles.
See: *www.icma.org/upload/bc/attach/%7B52A9455D-C980-43B4-A688-D8DBFADB78E4%7DActive%20Living%20Ambassador%20Fact%20Sheet[1].pdf*

National Transportation Enhancements Clearinghouse – This clearinghouse provides project details of Transportation Enhancements activities. These projects are federally funded, community-based activities that expand travel choices and enhance transportation experiences by improving the historic, aesthetic, cultural, and environmental aspects of transportation infrastructure.
See: *www.enhancements.org*

Nemours Health and Prevention Services (NHPS) – NHPS is working to educate parents and children about healthy eating and physical activity. In Delaware, Nemours has launched an initiative, "Grow Up Healthy," to change the climate and culture within the state to better support health promotion and disease prevention. The campaign is designed to help make Delaware's kids healthy and urges community leaders to advocate physical education and school wellness policies, the design of more walkable communities and places to play, and programs to finance childhood weight management programs. Online resources are available to provide guidance to parents and caregivers ways to promote children's health, good nutrition, and increased physical activity.
See: *www.nemours.org* and *www.growuphealthy.org*

Pedestrian and Bicycle Information Center – This resource provides information about health, safety, engineering, advocacy, enforcement, access, education, and mobility for pedestrians and bicyclists. The Center aids anyone interested in pedestrian and bicycle issues including engineers, private citizens, planners, police enforcement, educators, advocates, and the health community. It provides aid by promoting and distributing current and accurate bicycle and pedestrian information, providing technical assistance to various audiences and professionals to ensure they receive the best information, and generating a network of informed individuals and organizations that disseminate knowledge of pedestrian and bicyclist issues to the public.
See: *www.walkinginfo.org*

Rails-to-Trails Conservancy – This organization provides technical assistance, information resources, and referrals to trail and greenways experts and advocates nationwide. Services are available to communities, government organizations, nonprofits, or other entities interested in creating, managing, or programming trails and greenways.
See: *www.railtrails.org*

Robert Wood Johnson Foundation

- **Active Living by Design** – This national program creates and evaluates new approaches to encouraging physical activity through public policy, community design, and strategies involving communication. They offer education and training, resources (tool kits, case studies, and successful practices), coaching and facilitation, and program development, implementation, and evaluation.
  See: *www.activelivingbydesign.org/index.php?id=499*

- **Leadership for Healthy Communities** – The Foundation created "Leadership for Healthy Communities" that supports government leaders as they create policies to reduce childhood obesity. They do so by supporting active living, access to healthy foods, and a healthy diet. They offer expertise in developing plans that support healthy eating and active living. They also identify the best practices and policies to use for particular community types and help in finding the key funding sources for each community. Finally, they offer training and technical assistance with the initiation of healthy communities.
  See: *www.leadershipforhealthycommunities.org*

- **The Active Living Network** – This network focuses on how a built environment including neighborhoods, buildings, parks, transportation systems, and open spaces assist in living an active life. The source is designed for professionals, advocates, and people associated with implementing programs from a wide range of professions such as public health, transportation, and urban planning. The site contains a large database featuring current projects, programs, and initiatives in a variety of states and types of communities (e.g., urban, suburban, rural, and exurban).
  See: *www.activeliving.org/about*

Smart Growth Network – This group concentrates investment of time, resources, and attention into individual center cities and older suburbs. Smart Growth is both town-centered and pedestrian- and transit-oriented and promotes a greater mix of housing, commercial, and retail uses. Some of the principles that make up Smart Growth include the following:

- Creating walkable neighborhoods.
- Encouraging community and stakeholder collaboration.
- Making development decisions predictable, fair, and cost effective.
- Strengthening and directing development to already existing communities.
- Fostering distinctive, attractive communities with a strong sense of place.

See: *www.smartgrowth.org/about*

The National Center for Bicycling and Walking (NCBW) – The main mission of NCBW is to create bicycle-friendly and walkable communities. The organization seeks to change the way

communities are planned, designed, and maintained in order to provide greater opportunities for biking, walking, and active lifestyles within communities. One of NCBW main initiatives has been the Walkable Community Workshop program, a planning process to help communities realize a more walkable and bike-friendly future.
See: *www.bikewalk.org/workshops.php*

In New Castle County, WILMAPCO has been selected by NCBW to facilitate interactive Walkable Community Workshops, which identify real-world problems and hands-on solutions to enhance walkability in local communities.
See: *www.wilmapco.org/walk/#Background_Information*

United States Access Board – This is an independent federal agency devoted to the improvement of accessibility for people with disabilities. It was established in 1973 to ensure access to federally funded facilities and is now the leading source of information for accessibility design. The Access Board develops and maintains design criteria for the built environment, electronic and information technology, transit vehicles, and telecommunications equipment. It also provides training and technical assistance on these requirements and accessible design. In addition, it continues to enforce accessibility standards that cover federally funded facilities.
See: *www.access-board.gov*

Local Entities Supporting Healthy Community Initiatives

Delaware Council on Greenways and Trails – The Delaware General Assembly established the Council on Greenways and Trails in 1995 to foster a cooperative effort to preserve, protect, and link green open spaces. The Council advises the Secretary of the Department of Natural Resources and Environmental Control (DNREC), reviews Delaware Land and Water Conservation Trust Fund greenways and trail grant applications, serves as a resource for organizations seeking to link open space areas, and provides online maps and links for trail information in Delaware.
See: *www.destateparks.com/greenway/council.htm*

Delaware Greenways – This organization leads grassroots efforts throughout New Castle County and Delaware to leverage public and private investment for greenways and trails, promoting policies for conservation and open space initiatives, creating livable communities, and preserving scenic landscapes. Greenways initiatives generally target initiatives that are not within parks systems of units of government and follow greenway corridors that are targeted for recreation or conservation.
See: *www.delawaregreenways.org*

Delaware Trailspinners – This nonprofit organization of mountain bikers is committed to

preserving trails through education and advocacy. Volunteers donate significant time and effort to construct, preserve, and improve trail systems for shared use. Delaware Trailspinners sponsor an Adopt-A-Trail program for volunteers to lead trail maintenance and improve trails and provide an opportunity for stewardship of its members.
See: *www.trailspinners.org*

DNREC's Greenways and Trails Program – This program, administered by DNREC's Parks and Recreation division, provides grants under the Delaware Land and Water Conservation Trust Fund for greenways and trails, and resources for communities seeking to initiate greenway and trail projects.
See: *www.destateparks.com/greenway*

East Coast Greenway – The goal of the East Coast Greenway is to connect cities and towns along the East Coast with a continuous, traffic-free scenic pathway as a national greenway. Eventually, the East Coast Greenway will provide a 3,000 mile, multi-use trail stretching from Maine to Florida. According to a 2006 "State of the Trail" report, Delaware has completed a blueprint for action and boasts the highest percentage of completed trail miles. The East Coast Greenway traverses the Christina Walkway in Wilmington, New Castle Riverfront Greenway, and James F. Hall Trail in Newark.
See: *www.greenway.org*

Promoting Physical Activity Through Recreation Programming

A common theme among the many recreational programs across the nation is the mission behind the theme, or the purpose behind the initiative. By creating the theme, people feel included in the reason for such a program and are, therefore, more likely to use the facility or trail. For example, "WALKArlington" (Virginia) created a theme involving several different categories of people within the community in the hope that more people will be motivated to become active. Without a mission behind the initiative, people will not know the purpose of the infrastructure—Why the facility was built in the first place, and what programs are being designed for it now ("What is WALKArlington?").

Local government parks and recreation departments are forging partnerships with community health organizations to promote physical activity within community parks. "Indy in Motion" (Indiana) is a co-initiative of the City of Indianapolis Parks and Recreation Department, the Marion County Health Department, and the National Institute for Fitness and Sport. The partnership targets fitness opportunities, organized trail walks, and educational programs for families within the city's parks system ("Inactive America: What Can Parks Do?"). Greenfield (Wisconsin) Parks and Recreation Department is another example of a multi-pronged approach to linking recreation- and health-oriented focused programs. Through a partnership with the Greenfield Health Department, the Park and Recreation Department has expanded its health-related programs and services, sponsored an annual "It's a Walk in the Park" fitness event and fitness challenge at a local festival, and created a lighted trail system with interstate linkages ("Partnerships and Programs for Health").

Below are national and Delaware-specific programming initiatives that promote physical activity or simply the awareness and value of the walkability of communities.

National Healthy Communities Programming Initiatives

"Activate Chester County"

Chester County, Pennsylvania
Population: 36,854
Purpose: To urge families to adopt healthy lifestyles through collaboration among hospitals, health and recreation centers, school districts, municipalities, and YMCAs for families to adopt healthy lifestyles. The program:

> • Serves as a resource to improve health through education, screenings, and opportunities

for physical activity.

- Offers children a full day of physical activity and health education on "Healthy Kid Day."
- Features a "CAN Walk" event, which requires the donation of canned goods to participate and concludes with entertainment and refreshments.
- Offers a website with online calendar of events, BMI calculation, advice on how to be active and eat smart, and a personal fitness tracker.

Sponsors/Partners: Chester County Health Department, Chester County Schools, Chester County Hospital, Independence Blue Cross, AICP, La Communidad Hispana Inc., West Chester University, Brandywine Health and Fitness Foundation, YMCA, and United Way.
See: *www.activatechestercounty.org/acc_aboutUs.html*

"Livable Indiana Neighborhood Connections"

Indiana, Pennsylvania
Population: 15,016
Purpose: To promote healthy, safe neighborhoods through walking, cycling, and the use of public transit. The program urges residents to:

- Explore the town's pre-World War II development pattern (tree-lined streets, sidewalks, and street grid system) make it an attractive walking location.
- Support the "Safe Routes to School" program, which received a $500,000 grant from PennDOT to improve curbs, crosswalks, and pedestrian refuge islands. The "Walking School Bus Program," sponsored by Kia Motors, includes five routes to either the local elementary, middle, or high school.

Sponsors/Partners: Indiana University of Pennsylvania, Kia Motors, public school districts in Indiana, volunteers who walk children to school, civic groups, community organizations, senior citizen homes, County Office of Planning and Development, and parents.
See: *dspace.udel.edu:8080/dspace/handle/19716/2851* and *www.education-world.com/a_admin/admin/admin350.shtml*

"Shape Up Somerville"

Somerville, Massachusetts
Population: 77,012
Purpose: To prevent obesity in elementary-school-aged children. Components of the program include:

- Use of participatory process with intervention activities designed to influence every part of an early elementary school student's day.
- Introduction to healthy eating (Eat Smart!).

- Specific changes within the before-, during-, and after-school environments with introduction to healthy eating (Eat Smart!) and increased opportunities for physical activity (Play Hard!).
- School wellness with enhancements to school food service, expanded pedestrian safety and environment policies, and city employee fitness wellness benefits.
- Reinforcement of family health through parent outreach and education.
- Facilitation of a community-based collaborative partnership (three culturally diverse urban communities).

Sponsors/Partners: Tufts University, City of Somerville, Shape up Somerville Task Force, Somerville Public Schools, Teachers, School Nurses and Pediatricians, farmers markets, restaurants, and parents.
See: *nutrition.tufts.edu/research/shapeup*

"The 3 E's of Pedestrian Safety"

Chevy Chase, Maryland
Population: 9,381
Purpose: To promote a safe pedestrian environment through enforcement, engineering, and education.

- **Enforcement** – Police monitor sidewalks and high-traffic areas to enforce laws related to pedestrian safety and ensure that motorists yield to pedestrians.
- **Engineering** – These efforts focus on infrastructure and sidewalk improvements such as crosswalk markings, visibility issues, and accessibility to bus stops, medians, and signage. All future projects must have an "impact on pedestrians" statement.
- **Education** – The educational component is designed to raise awareness about pedestrian safety issues. The "Street Smart Education" program includes radio ads, printed safety tips, and a unique education program for immigrants regarding rules of the road. High school students are trained to show elementary students how to cross streets and walk to school safely.

Sponsors/Partners: County Department of Public Works and Transportation, Public School Districts, State Highway Administration, Latino Community, government agencies, local businesses
See: *www.montgomerycountymd.gov/mcgtmpl.asp?url=/content/PIO/news/pedestriansafety/ThreeEpage.asp*

"Walk for a Healthy Community: Organizations Unite to Make a Difference"

Harrisburg, Pennsylvania
Population: 47,472

Purpose: To raise funds for local health and human service agencies in the capital region. A secondary goal is to energize community members to have a greater hand in their health by becoming or staying physically active. The activity:

- Features a 5K run and free one-mile fun walk.
- Raises funds for local health and service organizations to further their missions and role in promoting physical activity.
- Connects community members with the mission of local health and public service organizations.

Sponsors/Partners: Highmark Blue Shield sponsors this walk so that 100 percent of money raised goes to participating organizations. Other project partners include: Arthritis Foundation, Big Brothers Big Sisters of the Capital Region, Brethren Community Ministries, Camp Curtin Branch YMCA, Central Pennsylvania Coalition United to Fight Cancer, CHANNELS Food Rescue, Community Check-Up Center (CCC), Harrisburg Mayor's Commission on Literacy, Highmark Caring Foundation or Highmark Caring Place, HOPE Station, Hospice of Central Pennsylvania, Keystone Children & Family Services, Make-A-Wish Foundation, Mission of Mercy, Parent Works, Pennsylvania Association for the Blind, Potential Reentry Opportunities in Business & Education, South Central Pennsylvania Sickle Cell Council, and Tri-County Association for the Blind.
See: *www.walkforahealthycommunity.org/hbg*

Delaware Healthy Communities Programming Initiatives - Statewide

"5-2-1 Almost None Campaign"

Delaware (Statewide)
Purpose: To increase awareness of the importance of children's physical activity and nutrition. It educates parents and children of the need for five vegetables and fruits a day, two hours or less of television time, one hour of physical activity, and almost no sugary beverages. Components include educational materials, media campaign, and training.

Sponsors/Partners: Nemours Health and Prevention Services, elementary schools, and childcare providers.
See: *apps.nccd.cdc.gov/DNPAProg/SearchV.asp?State=DE*

"Get Up and Do Something"

Delaware (Statewide)
Purpose: To increase regular physical activity and improve the nutritional health of Delawareans, particularly 18- to 30-year olds. Created by the Delaware Coalition to Promote

Physical Activity and Healthy Nutrition, the initiative promotes awareness of physical activity and nutrition, provides social support for individuals going through the "stages of change" continuum, increases the proportion of physically active adults, and provides a broad source of information about physical activity. The program acknowledges that change to develop a healthy and active lifestyle requires patience, commitment, and effort. The website offers articles and quick facts about nutrition and physical activity and lists of physical activities to do involving places unique to Delaware.

Community involvement is a cornerstone of the program. Community groups and agencies are serving as leaders and resources to Delaware residents. In addition, the Delaware Health and Social Services' Division of Public Health (DPH) and the Delaware Health Fund are offering mini-grants to community groups that are encouraging physical activity and/or healthy nutrition. The components of the program include building local capacity, providing grants, training, and social marketing through television ads, brochures, and a website.

Sponsors/Partners: University of Delaware, DPH, and Lt. Governor's Challenge.
See: *apps.nccd.cdc.gov/DNPAProg/SearchV.asp?State=DE* and *www.getupanddosomething.org*

"Lt. Governor's Challenge"

Delaware (Statewide)
Purpose: To encourage physical activity among inactive individuals and to help active individuals maintain or increase their activity. Program components include incentives and individual behavior change.

Sponsors/Partners: Lt. Governor's Office, DPH, University of Delaware, American Cancer Society, YMCAs, Delaware's Senior Olympics, and the Delaware State Chamber of Commerce.
See: *apps.nccd.cdc.gov/DNPAProg/SearchV.asp?State=DE*

"Walk Delaware"

Delaware (Statewide)
Purpose: To promote walking as an easy way for senior citizens to incorporate physical activity into daily living. The program challenges seniors to walk the length (96 miles) or the width (35 miles) of Delaware by walking less than half a mile a day. Logbooks are provided to track individual progress and rewards are given out through the Delaware Senior Olympics.

Sponsors/Partners: Delaware Senior Olympics, Lt. Governor's Challenge, and the Delaware Health and Social Services' Division of Services for Aging and Adults with Physical Disabilities (DSAAPD).
See: *apps.nccd.cdc.gov/DNPAProg/SearchV.asp?State=DE*

Delaware Healthy Communities Programming Initiatives - Regional/Local

Brandywine Village "Main Street Community" Activity

Brandywine Village, Delaware
Population: 10,000
Purpose: To highlight the historic landscape of the Brandywine Village. The self-guided walking tour features a twelve-page guide to twenty different historical sites around the Brandywine Village area. The tour:

• Presents a designated walking route with information on historical sites.
• Provides the convenience of a self-guided activity.
• Encourages self-exploration by visitors and tourists.
• Offers a venue for school field trips to increase the physical activity of students.

Sponsors/Partners: Delaware Main Street Program, Delaware Department of Economic Development, University of Delaware, and the Council of Wilmington.
See: *www.brandywinevillage.org/images/BrandywineValley_walktour.pdf* and *www.ci.wilmington.de.us/legislation/resolutions/2006/2553.pdf*

"Chesapeake and Delaware Canal Trail Concept Plan"

(future project)
Delaware City, Delaware
Population: 1,510
Chesapeake City, Maryland
Population: 802
Purpose: To enhance recreational activities along the canal by creating a multi-use trail. Plans call for:

• Constructing additional parking, rest areas, and interpretive signage, which will be integrated into the existing landscape.
• Preserving and protecting the special character and natural resources of the canal by creating a trail along the existing service road.
• Designing a trail to support low-impact recreational use that respects the canal and surrounding natural areas.

Sponsors/Partners: Congressman Castle, Project Working Group, and the Army Corps of Engineers.
See: *www.delawaregreenways.org/Newsletter_May2006.pdf*

"First State Heritage Park"

Dover, Delaware
Population: 32,135
Purpose: To create a free urban "park without boundaries" that links historical and cultural sites in Dover. The park opened in 2004 as a partnership among state agencies, under the leadership of Delaware State Parks, and in collaboration with the City of Dover, Kent County, nonprofit organizations, and the private sector. The park:

- Features guided walking tours and self-guided audio tours, which promote physical activity.
- Connects free park site destinations through the walking tour such as Legislative Hall, Delaware Public Archives, Biggs Museum of American Art, Delaware Visitor Center and Galleries, Delaware Archeology Museum, Museum of Small Town Life, and the Johnson Victrola Museum.
- Offers special events such as festivals, unique exhibits, lantern tours, special walking tours, and holiday happenings to highlight historical sites within historic Dover.

Sponsors/Partners: Delaware Department of State, Delaware Department of Natural Resources and Environmental Control, Delaware Economic Development Office, Delaware State Parks, and nonprofit and private-sector organizations.
See: *www.destateparks.com/heritagepark/FSHP_fall07rev.pdf*

"Mispillion Greenway Walking Trail and Tour"

Milford, Delaware (Kent and Sussex Counties)
Population: 6,732
Purpose: To encourage use of the walking trail and tour to promote health and fitness while showcasing Milford's rich history. The initiative:

- Highlights historical points of interest.
- Demonstrates a connection between city parks, natural areas, historic sites, cultural areas, and open spaces.
- Promotes the use of pedestrian trail and historical walking tour.
- Provides tips for fitness walking.
- Includes a brochure describing the initiative and provides a trail map.

Sponsors/Partners: Healthy DE 2010, City of Milford Parks and Recreation Department, University of Delaware, Centers for Disease Control and Prevention, and the Governor's Council on Lifestyle and Fitness.
See: *www.destateparks.com/Activities/trails/Milfordwalkingtour.pdf*

Rehoboth Beach Streetscape Project

Rehoboth Beach, Delaware
Population: 1,556 (year-round)
Purpose: To improve the walkability and appearance of Rehoboth Beach, tackled through a three-phase streetscape project. Streetscape improvements include:

- Adding aesthetically pleasing trash receptacles to accompany the existing, traditional white benches.
- Planting of street trees.
- Installing gray and red bricks to create paths to emulate a more natural feel than purely red brick.
- Encouraging businesses to exchange "box signs" for more artistic and visually appealing signage.
- Constructing of a new bandstand at the end of the boardwalk to draw residents, visitors, and tourists to the business district.

Sponsors/Partners: *Cape Gazette*, Bank of Delaware, Ocean Atlantic Agency, Comcast Spotlight, Inclind Inc., and Delaware Main Street.
See: *www.rehomain.com/streetscape.html* or *www.rehomain.com/aboutus.html*

"Walk Rehoboth"

Rehoboth Beach, Delaware
Population: 1,556 (year-round)
Purpose: To promote fitness, fun, and awareness of Rehoboth Beach's scenic beauty and streetscape. The event, which is held each Saturday and Sunday from Memorial Day to Labor Day, raises money for the Rehoboth Beach Public Library by charging a dollar per walk or twenty dollars for the year.

Sponsors/Partners: Rehoboth Beach Main Street and Dewey Beach Chamber of Commerce.
See: *www.walkrehoboth.org/Join_WalkRehoboth.html*

"Walkable Communities Workshop Program"

Wilmington, Delaware
Population: 72,664
Purpose: To educate community members on the importance of walkability. The program emphasizes that everyone is a pedestrian, walking is an essential transportation mode, and walkable communities reduce pollution, enjoy economic benefits, and focus on pedestrian safety. Core aspects of the workshop include:

- Design of a pedestrian-friendly community, traffic patterns, and sidewalks.
- Participation in a walking audit of the community.
- Engagement of people in a mapping exercise where people write down their realistic visions for improving pedestrian conditions to move towards a plan of action.

Sponsors/Partners: Wilmington Area Planning Council, Delaware Department of Natural Resources, and Southbridge Civic Association.
See: *www.dnrec.state.de.us/dnrec2000/Divisions/Soil/dcmp/WilmSAMP/ Southbridge%20Walkable%20Community%20Report.pdf*

Management and Maintenance of a Walkable Facility

Guiding Principles for Effective Management and Maintenance

If components of a pedestrian circulation system are well planned, designed, and constructed, long-term maintenance needs and management costs of the facility will be minimized. Initially, community support is high during the planning phase for a new trail or shared-use path. However, once the facility is construction, enthusiasm generally wanes and it is difficult to garner interest in management and maintenance responsibilities. It is critically important, therefore, to prepare a management plan during the master planning process to identify ongoing management and maintenance needs, responsibilities, and costs. While facilities must be designed with accessibility in mind, they also need to continue to be in good repair, accessible, and regularly inspected to meet ADA requirements.

The following guiding principles will help ensure the preservation of an effective management and maintenance system:

- Start with sound planning and design to address future maintenance needs.
- Consider protection of life, property, and environment as key aspects of management and maintenance.
- Maintain and promote a quality outdoor recreation and transportation experience.
- Develop a management plan that is reviewed and updated annually with operational policies, standards, tasks, and routine and curative maintenance goals.
- Maintain quality control and conduct regular inspections.
- Include police, fire/rescue personnel, and field crews in both the design review of the program and continuous management process.
- Maintain an effective, responsive public feedback system and promote public participation.
- Uphold good neighborly relationships with adjacent properties.
- Operate cost-effective programs with sustainable funding sources.

Stewardship

The stewardship process must consider both public-sector activities—such as the construction of roads and utilities—and private-sector activities—such as land subdivision and development. Coordination among agencies at the local, regional, state, and federal levels is vital to ensure that these activities are supportive of the plan and complementary to each other. Long-term stewardship also requires the enduring commitment of project staff, elected officials, project partners, stakeholders, and concerned citizens working cooperatively. This stresses the need for

a shared community vision and value system centered on the protection of a pedestrian circulation system, trail, bicycle, streetscape, and outdoor recreational resources.

Routine and Remedial Operations

Systematic Risk-Management Assessment

Safety is central for all maintenance operations and is the single most important maintenance concern of elements of a pedestrian circulation system. The City of Greenville, N.C., has implemented the following measures to ensure safety within its trail system:

- Schedule and document inspections to determine the amount of use, location, type of construction, age, and condition of bridges, trail surfaces, railings, and signage. Follow-up with the proper corrective measures in a well-timed manner.
- Evaluate and remove all obstacles or objects that could impede facility usage and provide solutions such as alternative routing and removal of obstacles.
- Implement a database management system, a crime-tracking system, and create a safety follow-up task force to address problems that may develop.
- Develop an emergency response protocol into operation that works with law enforcement, EMS agencies, and fire department that includes mapping of access points, design of pedestrian facilities, and access roads.
- Install emergency phones in appropriate remote areas. Each local emergency response unit should have an up-to-date map of all pedestrian and trail facilities.

Manage Interagency Responsibilities

It is crucial to coordinate the commitment of agencies responsible for walkable facilities to complete the following routine maintenance tasks. Listed below are the tasks assigned to a City of Greenville, N.C., greenway committee to monitor the maintenance of the community's trail system:

- Establish a coordinating committee with representatives from each of the participating stakeholders and organizations.
- Identify which entity will provide ongoing oversight, leadership, and coordination for the overall network.
- Review important private and public projects that might impact the pedestrian circulation system and its components.
- Pursue other cooperative agreements and grants for ongoing maintenance needs.
- Monitor maintenance, operations, and other advocacy functions now and in the future.
- Assess accident and crime reports and take the necessary actions on a case-by-case basis to ensure that all facilities do not depreciate due to safety concerns, crime, or fear of criminal activity.

Remedial Program Development

Remedial program development refers to activities required to sustain the quality of the pedestrian network. Maintenance needs will depend on many factors including weather, climate, volume of use, type of surface treatment, installation procedures, and age of the facility. The establishment of a committee, maintenance hotline, or reporting procedures may help formalize a process for addressing remedial program needs. To develop the remedial aspect of the program, updates should be made in these respective areas:

• Informational signage (rules and regulations) to communicate proper usage of all network facility types.
• Directional signage to integrate new trail systems as new projects are implemented.
• User maps to reflect any additions or changes to the systems or overall network and also reference connections between trail facilities.

Table 5. Maintenance of Pedestrian and Bicycle Facilities Within Roadway Rights-of-Way (modeled after City of Greenville, N.C., Department of Transportation info)

Task	Frequency	Comments
Regular inspection	2X per year	All on-road bikeways, identifies needed repairs of pavement signs, markings, etc.
Shoulder and bike-lane sweeping	2X per year	All roadways with bicycle facilities.
Shoulder and bike-lane repairs	As needed	Repair road surface, including potholes, cracks, or other problems on facilities.
Median island and curb extension repairs	As needed	Repair of curb and gutters, removal of debris.
Shoulder and bike-lane resurfacing	During regular roadway repaving	Maintain or increase pavement width during repaving projects.
Debris removal from shoulders	As needed	Remove debris roadway shoulders and bike lanes.
Snow and ice removal	As needed	Plow snow off roadway shoulders and bike lanes, and require property owners to shovel sidewalks.
Pedestrian signals	As needed	Replace burned-out or broken pedestrian signal heads; adjust pedestrian signal timing to accommodate standard pedestrian walking speed.
Signs and markings	As needed	Repair or replace pedestrian and bicycle signage or marking, crosswalk markings, as identified during inspections.
Vegetation control	As needed	Mow grass and trim limbs and shrubs two feet back from sidewalk edge.
Litter removal	6X per year	May be done with volunteers

Routine Maintenance Needs

Routine maintenance refers to the day-to-day regimen of litter pick-up, trash and debris removal, weed and dust control, sweepings, sign replacement, shrub and tree trimming, and other regularly scheduled upkeep of each segment of a pedestrian network. The rate of routine maintenance should be established as new facilities are implemented and should be updated annually to reflect any changes in usage and safety issues. Volunteers can be used to sweep and remove trash from pedestrian facilities. Regular attention should be given to the surrounding landscape, both man-made and natural, to maintain a high-quality network. This includes:

- Pruning and trimming trees and shrubs.
- Mowing vegetation.
- Mulching and edging.
- Controlling invasive species.

Remedial Maintenance Needs

Remedial maintenance refers to correcting major faults in the pedestrian network, as well as repairing, replacing, or restoring significant components of facilities that have been damaged, destroyed, or significantly deteriorated from normal usage and age. Some minor repairs may occur on a five- to ten-year cycle such as replacing signage, repainting, and seal coating asphalt pavement. Major reconstruction repairs will occur over a longer period or after a natural event such as flood. An example of major reconstruction remedial maintenance includes the stabilization of a severely eroded hillside. The repair and maintenance of existing facilities should be reflected in the projected budget for future maintenance costs. Listed below are the longevities for different types of surfaces used on shared-use paths and trails, and how frequently they should be repaired:

- Mulch: 2-3 years.
- Granular stone: 7-10 years.
- Asphalt: 7-15 years.
- Concrete: 20+ years.
- Boardwalk: 7-10 years.
- Bridge/Underpass/Tunnel: 100+ years.

Habitat Enhancement and Control

Habitat enhancement seeks to improve aesthetics, help prevent erosion, and prevent harm to the wildlife habitat. Habitat control seeks to alleviate damage caused by wildlife. To protect wildlife and enhance the natural habitat of the environment:

- Plant native vegetation.

- Protect man-made and natural features of the landscape from wildlife by installing fencing around sensitive or newly planted materials.
- Apply herbicide to remove any problem plant species.
- Apply herbicide to retain facility edges and prevent encroaching vegetation.
- Discourage interaction between facility users and facility inhabitants such as feeding the wildlife.

Administration and Jurisdictional Responsibilities

It is recommended that a municipal employee be designed as a "Pedestrian Coordinator," to carry out administrative responsibilities of managing the pedestrian network. The duties of the coordinator may include carrying out recommendations of the management plan; applying for funds; overseeing planning, design, and construction of phases of the pedestrian network; organizing volunteer efforts; and coordinating responsibilities with other agencies such as DelDOT.   The Pedestrian Coordinator should plan and direct administrative responsibilities in concert with:

- **Public works department/engineering** – To carry out the timely construction of project phases and remedial maintenance of all hard, municipality-owned trails, shared-use paths, and pedestrian facilities.

- **Parks and recreation department** – To maintain trails and shared-use paths in parks and park facilities. Active recreation of facilities should be planned through recreation and special events programming.

- **Police department** – To train municipal police officers on the latest laws governing bicyclists and pedestrians and to provide safety patrolling.

- **Volunteers** – To optimize success of programs and use of facilities, it is essential to build a pool of volunteers to build community pride and help connect the community to the pedestrian network. Volunteers may donate time to offset the cost of construction or maintenance of a facility. Citizen advocacy groups, recreation boards or councils, trail ambassadors, event assistants, or other volunteer positions may be established to lead volunteer efforts in advocacy, stewardship, fundraising, maintenance, and recreation programming.

- **DelDOT** – To enhance inter-jurisdictional coordination in the maintenance of all pedestrian and bicycle facilities within the state-owned rights-of-way, as well as the design and construction of state on-road facilities. This includes bicycle lanes, paved shoulders, sidewalks on state roads, and pedestrian signals.

- **Property owners** – To ensure that routine maintenance of off-road sidewalks and shared-use paths is conducted according to municipal ordinances.

- **Nonprofit group, task force, or coalition** – To develop stewardship for trails, shared-use paths, or other pedestrian facilities, which may include:

  - Attaining, refurbishing, protecting, and developing natural resources.
  - Incorporating public historical, cultural, and recreational facilities with compatible partners.
  - Developing an information center and education materials to increase awareness of environmental and historical value of the network
  - Assisting the local government in fund raising through grants, donations, leasing of concessions, and special events.
  - Maintaining committees/boards to represent diverse community interests.

Note: All information for this section obtained from Chapter 6, "Operations and Management" of the "Trails and Greenways" master plan for Greenville, North Carolina.

Creating and Sustaining a Volunteer Program

Volunteerism Trends and Facts

Not only is it important to get stakeholders engaged in planning a pedestrian-friendly community, it is also essential to involve them with the construction and maintenance of walkability projects. Use of volunteer resources helps to lower maintenance costs and build long-term support for a pedestrian facility. The best way to enlist and use volunteers is to establish a volunteer program. Before developing such a program, it is important to understand trends and facts that influence an individual's inclination to volunteer. Consider these trends to identify volunteers that may be recruited to assist with a walkability project (Bureau of Labor Statistics):

- In 2005, women demonstrated more of a willingness to volunteer than men.
- People within the age bracket of 35-44 were the most active volunteers, followed by those 45-54.
- Married people volunteered more than single people.
- Parents with children under the age of 18 were more likely to volunteer than those without children.
- Employed people volunteered more than unemployed people or those not in the labor force. Part-time workers volunteer more than full-time workers.
- Volunteers spent on average 50 hours on volunteer activities. People over the age of 65 averaged the most time spent volunteering, while people between the ages of 16-19 and 25-34 averaged the least number of hours.
- Volunteers were involved most commonly with organizations that were either affiliated with a religion, school, youth-related activity, or community-service project.

People volunteer with a particular organization because they believe in the organization's mission. If the community has rallied around the planning of the project, these supporters may wish to volunteer to continue to support its mission. In order to maintain the momentum of support, it is useful to understand the following motivations for volunteering (Merrill Associates):

- Shared conviction – A belief in the mission behind the organization.
- Affiliation – A desire to be associated with a particular organization.
- Influence – An aspiration to influence the aims and direction of an organization.
- Altruism – A wish to show an interest in the welfare of others without any promise of tangible recompense.
- Social interaction – A desire to meet others with similar life goals and interests.
- Career building – An interest in using volunteer work as an opportunity to develop

occupational skills and network with others along a similar career path.
• Learning opportunity – A quest to gain knowledge and experience.
• Accomplishment – A sense of wanting to help an organization create and complete projects that give the volunteer satisfaction and pride.
• Community service requirement – As a means to complete a class or graduation project.

Volunteer Program Planning

Projects that have a clear and compelling vision, concrete goals, and broad-based community support exhibit the ingredients to build successful volunteer programs. Prospective volunteers need to strongly identify with the shared vision, feel that the volunteer work is valuable, and believe that they will gain a sense of achievement from involvement. To develop a solid volunteer program, an organization must (Points of Light Foundation):

• Identify the work project while defining how the project contributes to the strategic goals and mission of the organization.
• Outline the tasks associated with the project and identify how it benefits the volunteers.
• Identify potential project partners and investigate potential funding sources.
• Determine the number of volunteers needed and clarify skills needed to perform each task.
• Communicate how the volunteers will be organized (work as a team with team leaders, committee, or independent work).
• Determine the project location, logistical needs, and working conditions.
• Determine the tools, supplies, nourishment needed while determining the training needed for the work and for safety. Train staff and volunteers to prepare for accidents.
• Decide the length of the project (duration and daily work hours) and the total project cost.
• Plan fun and social activities for volunteers.
• Plan volunteer recognition/appreciation events during and after the project.
• Recognize volunteers, project sponsors, partner organizations, and funders.

Roles of Volunteers

A volunteer coordinator may be designated to recruit, coordinate schedules, determine roles, develop job descriptions, and recognize service hours of volunteers. The coordinator should identify the type of volunteer job opportunities that will support the sustainability of a walkability project. Once the type of volunteer jobs are identified, job descriptions need to be prepared to outline the nature of work, needed skills, time commitment, physical demands, required training, and hours and location of work.

The roles of volunteers vary and may evolve depending on the stage of the project. In the early stages of the project, volunteers may form committees to plan walkability projects, solicit funds,

advise the organization, develop a maintenance plan, and coordinate human resource efforts of local community groups, service clubs, nonprofit organizations, school groups, civic organizations, business, and other project partners. During the implementation phase, volunteers may be enlisted to finalize the design of a project, support communications and outreach efforts, assist office operations, and in-kind labor for facility construction or landscaping.   Volunteers may provide in-kind services such as labor for facility construction, routine maintenance, or recreation programming. Once the facility is constructed, volunteers can help support the sustainability of the project by other in-kind services such as routine maintenance, recreation programming, or planning and executing special events.   Volunteers may also establish trail committees, "friends of parks/trails" groups, adopt-a-trail crews, ambassador programs, and stewardship initiatives. If civic groups or organizations are involved in volunteer efforts, written agreements should be developed to formalize commitments and long-term service obligations. Efforts of all volunteers and volunteer groups should be recognized and credited on signage, press releases, websites, and outreach material.

Recruiting Volunteers

Advertising and promoting volunteer opportunities can serve as a mechanism for recruiting volunteers and enhancing the visibility of the initiative. Promote the need for volunteers through press releases, electronic or print newsletters, existing volunteer referral services, stakeholder groups, speaker's bureaus, civic events, or other outreach activities. Convey how the volunteer opportunity will benefit both the volunteer and contribute towards the vision and goals of the initiative. Explain the nature of the volunteer opportunity and what roles volunteers will fulfill. When recruiting an individual or group of volunteers, consider the following questions to ensure a good match to the needs of the project (Mayes Wilson and Associates):

- Do you believe in the mission of the project?
- Who are the groups that will use the facility (compare consistent, sporadic, and rare usage)?
- Who will benefit from use of the facility and who in the community will benefit from those people using it?
- Who might be opposed to the project?
- Who are the stakeholders that the organization wants to get involved in the project?
- What are the benefits of being a volunteer?

Good volunteer programs should have policies and procedures to provide structure for the program and guidance for the volunteers. Policies are also a component in successful risk management for the municipality and can be adapted from existing employee procedures. Volunteers should be advised during an orientation process on practice and policies governing alcohol/drug use, confidentiality, liability, safety, harassment, and discrimination (Points of Light Foundation).

Evaluating and Recognizing Volunteers

An evaluation of volunteers and the volunteer program on a periodic or annual basis is essential to sustaining an effective and efficient program. The evaluation process should relate back to the program goals and volunteer job descriptions. Evaluating volunteers can help ensure that a volunteer performs work that matches described work, obtains proper training, receives adequate supervision, and feels a sense of accomplishment. The evaluation process should be a two-way dialogue to allow the volunteer to critique the volunteer program and offer suggestions for improvement.

Finally, a successful volunteer program should recognize and celebrate volunteer efforts and highlight the importance of volunteerism. Several recent studies have shown that recognition also helps with effective recruitment campaigns for new volunteers. The appreciation of volunteers contributes directly to the strength of the volunteer organization and the sustainability of its efforts (Points of Light Foundation).

Case Studies

Delaware City Canal Promenade Project
Delaware City, New Castle County (1,453 pop.)

Planning the Pedestrian Connection to the Historic Downtown

Delaware City is situated on the Delaware River and has historic ties to the Chesapeake and Delaware Canal. Dating from the early 19th century, the town was a significant port for shipping business ("History: Delaware City"). Its historic district has hundreds of structures telling of the community's past, and the town is a destination for outdoor fun such as bicycling, hiking, and bird-watching ("Welcome to Delaware City").

In 1998, the City commissioned a study that laid out the concept design of the Delaware City Canal Promenade Project. To build consensus, the Mayor and Council held public hearings and the Main Street Delaware City, Inc. (MSDC) conducted community outreach. Building consensus was not difficult given that the town already shared the vision of attracting visitors and that the promenade project is clearly consistent with this community vision (Morrill).

An array of funding sources provided the means necessary to construct the needed pedestrian connection to the historic downtown. Federal sources include the U.S. Army Corps of Engineers (USACE), Transportation Enhancements funding (TE), and the Federal Emergency Management Agency (FEMA). State sources include the Community Transportation Fund (CTF), Community Redevelopment Fund (CRF), Delaware Land and Water Conservation Trust Fund (LWCTF), and State Bond Bill funding. These sources combine with innovative local in-kind matches, like a land donation and a land lease (Morrill).

Vision and Concept Plan

The goal of the Delaware City Canal Promenade was to create a bicycle and pedestrian facility that connects neighborhoods to downtown. The long-term objective is to extend the promenade to connect with the main Chesapeake and Delaware Canal (C & D Canal) trail, which is intended to be a regional recreational facility. The future vision is for the promenade to be a pedestrian link within the city and between cities. Another purpose has been to beautify and encourage economic revitalization downtown and along the riverfront (Morrill).

Three phases of the promenade project have been completed to date, with an indefinite number of phases to follow in reaching the long-term objective of connecting to the C & D Canal trail. Phase One restored the appearance of the area around the old locks of the canal by installing railing along the riverfront, putting up informative signage about the history of the area, and

creating a new entrance to the downtown park. Phase Two entailed the creation of a new segment of park in "The Basin" area facing the canal, which extended the existing park by replacing an adjacent parking lot. Phase Three of the project extended the promenade from the Sterling building south along Canal Street to William Street. It also involved the replacing of the deteriorated bulk heading along the riverfront and the canal (Morrill).

Accomplishments

The project has stimulated private investment to revitalize historic buildings in the city's commercial center. Building facades have been restored, and work is being conducted to recruit shops to Clinton Street. The project has attracted one restaurant to the district-Crabby Dicks. Furthermore, the project has extended the downtown park space and increased its use by residents and visitors as the new promenade encircles the site. A future attraction will be the Sterling building, which was purchased by the city to prevent its further deterioration. It is currently undergoing a $1.5 million structural and exterior rehabilitation, and the plan is to draw another restaurant to the downtown (Morrill).

Programming

There are a number of programming initiatives that promote the promenade. Most programs are sponsored by either the City or MSDC. An annual "Delaware City Day" event attracts 5,000 to 10,000 people with fireworks and other festivities. The "Canal Fest" takes place in the fall, and the music series in the park occurs in August—both are sponsored by MSDC. An annual "Escape from Fort Delaware Triathlon" supports MSDC's mission to revitalize downtown Delaware City while preserving its cultural and historic heritage. Furthermore, a "Walk Across Delaware" event, part of the Lt. Governor's Challenge to get people to increase their level of physical activity, started and ended in Delaware City (Morrill).

Funding

Total project cost: approximately $8 million (includes phases 1-3 and estimate for last phases)
Federal funding sources: $1.8 million
State funding sources: $2.2 million
Local monetary match sources: All matches from other grants

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James F. Hall Trail
City of Newark, New Castle County (pop. 28,547)

Scenic, Urban Trail in a College Town

While Newark, Delaware may be best known as the home of the University of Delaware (UD), it has also garnered a stellar reputation as a beautiful, recreation-oriented and pedestrian-friendly town. The City of Newark has long been a leader in recreation through its efforts to acquire parkland, preserve scenic landscapes and greenways, and plan for the development of its comprehensive parks system and recreation programs. From its genesis in 1968, Newark's parks system has grown to encompass twenty-nine parks encompassing over 400 acres. The City of Newark's trail system showcases how comprehensive infrastructure planning, the formation of partnerships, and stakeholder/public involvement in the planning process can lead to recreation facilities that reflect the vision of the community.   Named for the City's first Parks and Recreation director, the James F. Hall Trail serves as the cornerstone of a future community-oriented trail network.

Planning for the James F. Hall Trail was spearheaded by a working committee comprised of stakeholders.   While the City of Newark has a vibrant downtown area, scenic college campus, and attractive residential areas and parks, the need to cross roads made pedestrian and bicyclist access difficult. To address this need, goals for trail planning were to provide optimal connectivity to key destinations, ensure safe passage for pedestrians and bicyclists, and form the core for future trail linkages. Following a stakeholder-driven master planning process, the trail was constructed on city parkland and land acquired from UD and Amtrak. Opened for use in 2003, the 1.76 mile multi-use asphalt trail, serves both a recreation and transportation function. Running parallel to Amtrak's northeast corridor tracks, the scenic trail traverses wetlands, woodlands, streams, and passes through Philips, Lewes, and Kells Parks. It is an extremely popular recreation venue for walkers, bicyclists, in-line skaters, and joggers. As an off-road transportation facility, it is wheelchair accessible and safely links residential neighborhoods, three local parks, UD's college campus, sidewalks to Newark's downtown, the Delaware Technology Park, and the College Square Shopping Center.

Master Plan

The James F. Hall Trail evolved from a vision of a pathway that would integrate the needs of the community, provide a safe, off-road transportation option, and enhanced connectivity. A Newark Bicycle Committee was formed from representatives of the municipality, UD, the Wilmington Area Planning Council (WILMAPCO), and the community. During the master planning process, the Newark Bicycle Committee held public hearings to foster community awareness of the project, gain community support, and gather input on design options. Because of its urban and somewhat remote setting, safety was a paramount concern. To address this

concern and planned 24-hour use of the facility, plans for the trail called for the installation of lighting and emergency call boxes linked directly to Newark Police Department.   Trail amenities such as benches, trash receptacles, location or warning signage, tenth-of-a-mile measurement markings, crushed stone shoulders for runners, and low-maintenance perennial landscaping were also planned to reflect the needs and interests of prospective trail users.

Due to the success of the James F. Hall Trail, future investments are planned for trail system linkages. Plans for the construction of the 1.85 miles of the Pomeroy and Newark Rail Trail are underway. At the southern end, the Omerou Rail Trail will join the Hall Trail and link neighborhoods, Newark's downtown, city parks, and a planned transit hub. At the northern end, the Pomeroy Rail Trail will connect the White Clay Creek State Park, University of Delaware's Laird Campus, and pass within a half mile of the Newark Reservoir Trail. The interconnected trail system showcases the City of Newark's effort to build safe and user-friendly trails that serve both recreation and transportation purposes.

Programming

To promote use of its trail system, the City's Parks and Recreation Department has started a Healthy Newark Community Walking Club for residents. This free club encourages walking, healthy living, and stewardship of parks and trail facilities. A starter packet, provided by the Parks and Recreation Department, provides information on walking, ways to stay healthy, a pedometer, and a form to record walking activity. Local sponsors provide incentive rewards. In addition to this program, several special events have promoted the use and increased popularity of Newark's trail system. A free Health and Wellness Fair for the community was planned with a one- and three-mile "kickoff" fitness walk along the James F. Hall Trail. Each December, a "Reindeer Run" benefits the Special Olympics Delaware. The Fraternal Order of Police, Lodge Number 4, also hosts a Walk and Run Event to benefit the American Cancer Society and commemorate the city's former police chief, William Nefosky, who succumbed to pancreatic cancer.

Funding

Total project cost: $2,100,000
Federal Transportation Enhancements funding: $1,900,000
DNREC's Delaware Land and Water Conservation Trust Fund: $200,000

Contact

Charlie Emerson, City of Newark Parks and Recreation Director
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Mispillion Greenway
Milford, Kent County (6,732 pop.)

Refocusing on the Riverway

Like other Delaware towns, Milford's riverway has provided an essential venue for a wide variety of commerce and trade. The shipbuilding industry prospered on the Mispillion River for 150 years, the first vessel having been built in 1761 ("Mispillion Greenway," 4). The River also played a vital role as a transportation corridor and a source of power for local industry. Hence, it is written in the history of the town that the Mispillion River was "the economic lifeblood of Milford" ("An Overview"). The focus on the river, however, waned with the advent of railroads in the 1880s. There was no longer the same dependence on the river, as the railroad served the transportation needs of the community (Emory).

With recent revitalization efforts, Milford residents are envisioning the riverway as key to future economic prosperity and its potential to promote the town's history and health. The City's Parks and Recreation Department had spearheaded the movement to create a greenway along the river, following a recommendation in a study conducted by IPA at the University of Delaware. During the first phase of the greenway project, Milford's Chamber of Commerce spearheaded the effort to form a local greenway council in 1991. The Chamber and the greenway council collectively sought input from stakeholders and the community forged ahead in a "great move at a great time" to revitalize a stagnant downtown (Emory). "It has been a boom ever since," explains Gary Emory, director of the Department of Parks and Recreation. "A renaissance is going on in our little progressive town."

The Mispillion Greenway has received funding from several federal sources (i.e., Transportation Enhancement funding, U.S. Department of Agriculture/Soil Conservation Service, and National Fish and Wildlife) and state sources (Delaware Land and Water Conservation Trust Fund and Community Transportation Funds, formerly Suburban Street Funds). The City of Milford contributed monetary matches through city funding and other grants. The City also combined these sources with in-kind matches of donations of lands that the city received from local philanthropists (Emory).

Vision and Concept Plan

Prior to the construction of the greenway project, pedestrian travel within Milford's downtown was difficult. The vision was to build a greenway facility that is scenic, mobility-friendly, and provides easy access to its central business district. The greenway fosters opportunities for pedestrians and bicyclists to travel on both sides of the river via the greenway trail, provides pedestrian bridges to cross the river, and physically links to downtown office buildings, shops, parks, and residential areas. Main goals include improving and expanding the existing

riverfront greenway and park; uniting the central commercial district with parks, schools, and historic sites; planning for continued beautification and expansion of the greenway. After 21 phases spanning 18 years (1991-2008), the greenway project has seen improvements such as construction of a new library by the riverside, a city park that links the walkway with the library and downtown business district, installation of pedestrian and fishing bridges, and acquisitions of historic buildings along its path ("An Overview"). Future phases are being planned to fulfill the goals formed by the greenway council and to ultimately have a two-mile loop of trail that will include Goat Island, a nine-acre nature study park (Emory).

Programming

Downtown Milford Inc. (DMI) organizes and supports community events in the downtown area that draws residents, visitors, and tourists to the Mispillion Greenway. One event sponsored by DMI, the "Bug & Bud Festival" celebrates Delaware's state bug and was recognized as a "local secret, big find" in 2007 by Travelocity. Other events sponsored by DMI include the Saturday Farmer's Market, Milford Heritage Festival, Holiday Glow, and Santa's House. Each September, the Riverwalk "Freedom" Festival is presented by the Chamber of Commerce for Greater Milford, Inc. and the City's Parks and Recreation department. This event attracts around 5,000 people and celebrates America's freedom, features a pancake breakfast, showcases live bands, and displays fireworks at dusk ("Milford Chamber Office").

The City's Parks and Recreation department, in collaboration with Healthy Delaware 2010 has developed a Mispillion Greenway Walking Trail and Tour brochure to promote physical activity and showcase the community's historic architecture. The brochure includes a map, which guides residents and tourists on a self-directed tour of over a dozen historic homes and points of interest. It also provides tips for walkers to make walking a habit, maintain optimal fitness, and improve cardiovascular health.
See: *www.destateparks.com/Activities/trails/Milfordwalkingtour.pdf*

Funding

Total project cost: approximately $4,000,000 (to date)
Federal funding sources: $1,839,500
State funding sources: $1,768,000
Local monetary match sources: $387,500 and other grant matches

Contact

Gary L. Emory, City of Milford Parks and Recreation Director
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Mulberry Street Improvement Project
Town of Milton, Sussex County (1,657 pop.)

A Pedestrian-Friendly Connection to a Historic Downtown

Milton, Delaware, is a quaint, historic town located at the mouth of the Broadkill River in Sussex County.   Renowned for its rich shipbuilding heritage, the town is being rediscovered by tourists visiting Delaware's eastern shore, fans of historic architecture, and nature enthusiasts. Milton has been designated as one of Delaware's and among the nation's first Preserve America communities, which strive to showcase cultural and natural heritage assets and bolster economic vitality in towns.

Walkability has become paramount to Milton as a heritage tourism destination. The Town of Milton embarked a streetscape project to make its downtown a focal point for shopping, strolling, and connectivity. The Governor's Walk pedestrian promenade invites leisure walking along the Broadkill River through the downtown business district to patronize businesses, view historic properties, and enjoy its natural beauty.

Funded with the help of a $3 million Transportation Enhancements award and a local match of $80,000 in the form of a federal Community Development Block Grant, a recent Mulberry Street Improvement project established a needed sidewalk and a pedestrian connection to important community destinations. The project was initiated by leaders of the Town of Milton, with enthusiastic support from the community. Prior to the project, Mulberry Street was an uninviting pedestrian zone due to its lack of sidewalks, connectivity, and poor drainage. Mulberry Street was unsafe for children walking to the nearby elementary school and individuals, particularly low-income seniors, who wished to walk downtown.

Concept Plan

To address these problems, town leaders garnered support from the legislative community and developed a concept plan with input from the community. The Mulberry Street Improvement Project was eyed to improve pedestrian safety, promote traffic calming, enhance visual aesthetics, and promote connectivity to popular destinations such as the elementary school, Milton's historic town center, Wagamon's Pond recreation area, and new development on Rt. 16 along the north edge of the town. The project involved several key elements to improve pedestrian safety and connections. Key elements included the installation of sidewalks, construction of curbs as a safety barrier, and water run-off management. The installation of curbs, which gives the appearance of a narrower roadway, in combination with a reduced speed limit, serve as a traffic- calming measure for the roadway.

Major investments in streetscape improvements, have contributed to Milton's quest to become a

more walkable and recreation-oriented community. Funding of recreation facilities include fishing bridges, a boat launch area, playground equipment, and fishing along the banks of the Milton Memorial Park located downtown, and the new Mill Park along Mulberry Street. Milton's pedestrian orientation and sense of past capitalize on its image as a historic gem within the Diamond State.

Programming

As a major gateway to Milton's historic town center, the Mulberry Street Improvement Project has helped to showcase the community's preservation initiatives, display its natural heritage, strengthen its economic vitality, and demonstrate local pride through its many civic events. The Convention and Visitors Bureau of Sussex County highlights Milton's history and heritage attractions. Seasonal events, festivals, a speakers' bureau and film series, and permanent exhibit to expound its maritime heritage are sponsored by the Milton Historical Society. Listed on the National Register of Historic Places, the Milton Historic District invites pedestrians to view its Victorian-style architectural treasures.   Recreational areas, the Governor's Walk promenade, quaint shops, inns, public places, and a craft brewery have placed Milton on the map as a pedestrian-friendly destination.   Programming under the "Safe Routes to School" program is being coordinated through H.O. Brittingham Elementary School, located in the heart of Milton on Mulberry Street.

Funding

Total project cost: $3,000,000
Federal Transportation Enhancements funding: $2,920,000
Local match (CDBG Funds): $80,000

Contact

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UD Healthy/Walkable Communities Initiative

The University of Delaware's Healthy/Walkable Communities Initiative began in 2006 as a partnership between the Institute for Public Administration and the University's Department of Health, Nutrition, and Exercise Science (DHNES). Funding support for the initiative was provided through a contract with the Delaware Division of Public Health through DHNES.

The goal of the program was to research key aspects of the built environment as they related to health and obesity, publish a paper on the findings, and work with a number of municipalities in Delaware to improve their walkability, and ultimately the health of said communities. During the program's first year, Dover, Townsend, and Bridgeville, Delaware were chosen. Each was awarded a $2,000 mini-grant and received a complimentary health/walkability assessment conducted by IPA staff and research assistants. A brief report was also provided to each. In each case, a committee of interested citizens (often including town staff, elected officials, or planning commissioners) identified a problematic area of the municipality to serve as the study area. The groups then typically walked the area, took pictures, and helped IPA staff gather data for further analysis.

Dover's primary concern was a break in its sidewalk network between Central Middle School and Silver Lake Park on Washington Street (the only route to the park). Though not heavily trafficked, pedestrians were forced to walk in the travel lanes because of several breaks in the sidewalk and the somewhat hilly terrain on the south side of the street. Dover city staff suggested that a bulb-out (to extend the sidewalk further into the street) or landscaping and grading in the existing right-of-way as potential solutions. Recognizing the improvements would cost well over $2,000, the City earmarked the mini-grant to offset a portion of the project and agreed to make up the difference with existing sidewalk funds.

Bridgeville was already an extremely walkable, and well-walked community. Its key concern was building upon successes it had already achieved with its walking club and community events. To that end, Bridgeville wanted to formalize and appropriately sign a walking route within town. IPA staff and town volunteers walked several potential routes, decided on one, and planned for its enhanced walkability during the assessment. Bridgeville has allocated the mini-grant toward signs/activity stations.

Townsend, like Bridgeville, was also interested in formalizing a five-kilometer walking route. It was anxious to explore potential pedestrian connections to a new park, and was keen to apply for capital funds for a redesign of its main street. It appropriated and spent its mini-grant to help defray the costs of engineering/scoping work for a streetscape project. Ocean View and Elsmere were chosen as second-year towns. Ocean View is exploring a greenway trail along its canal, while Elsmere is scoping out a similar project along a rail line in town.

Conclusion

Physical inactivity is taking its toll on Americans as evidenced by a rise in health care costs, increase in the incidence of childhood and adult obesity, and growth in a variety of health problems associated with a sedentary lifestyle. Factors such as car-oriented community design, unsafe or inaccessible walking environments, and sprawling land-use patterns have contributed to the trend of inactivity. The built environment of a community—such as the design of pedestrian facilities, connectivity of streets, compact development, proximity to recreation facilities, and the walkability of neighborhoods—can determine the extent to which residents have opportunities for routine physical activity.

There is increasing recognition that the design of a community can impact the health of its residents. Communities are also realizing the economic potential of developing more walkable environments. Local community leaders and policymakers have the opportunity to influence active living by adopting smart growth principles, shaping transportation and land-use policies, designing mobility-friendly infrastructure, and funding recreation programs that encourage the use of pedestrian facilities.

Walkable communities don't happen by accident. Community leaders and policymakers need to identify and convene stakeholders to collectively develop a vision for a healthy community. Consensus building is essential to build support for the vision, develop plans that reflect input from all stakeholders, and develop a common ground for action. Once the vision has been established, an inclusive master planning process is needed to guide decision-making on projects that enhance walkability. Successful master plans should be financially feasible, environmentally compatible, balanced, technically sound, responsive, and flexible. There should be several opportunities for public review and feedback on a draft master plan prior its adoption. Once approved, an implementation plan should be prepared based on available funding, phases of construction, and priorities for connections within the overall pedestrian network.

 A well-designed and maintained pedestrian circulation system can encourage people to be more active and less automobile dependent. Pedestrian-friendly facilities should be designed with the needs of the users in mind and to provide network continuity, safety, comfort, convenience, accessibility, and visual appeal. Constructing a walkability project with sound design, resilient construction, and a management plan will contribute to the use, safety, and overall sustainability of a community's pedestrian circulation system.

An array of technical assistance and funding options to fund active living and walkability initiatives are available. Major infrastructure investment, however, will require funding from multiple funding sources and the ability to leverage grant funds.   Successful projects enlist project partners and volunteers to maximize the use of resources, build community support, and

encourage use of a facility. Municipal parks and recreation departments play a huge role in promoting healthy communities by programming recreation activities, special events, and fitness challenges. While measures listed in this resource guide are not exclusive, it is hoped that these strategies will help Delaware municipalities begin the journey toward improved health.

Appendices

Appendix A

Pedestrian Environmental Data Scan (PEDS), University of Maryland

Implementation Checklist for Walkable Communities, Institute for Public Administration

Glossary

Bibliography

Appendix B

Walkability Improvements – Delaware City Promenade Project, Delaware City

Before/After Walkability Improvements – James F. Hall Trail, City of Newark

Walkability Improvements – Mispillion Greenway, City of Milford

Before/After – Mulberry Street Improvement Project, Town of Milton

Conceptual Streetscape Design - Town of Townsend

Appendix A

Pedestrian Environmental Data Scan (PEDS), University of Maryland

Kelly J. Clifton, PhD - National Center for Smart Growth - University of Maryland, College Park

Implementation Checklist for Walkable Communities
Institute for Public Administration at University of Delaware

<u>Design for pedestrian safety</u>
- **Always provide adequate lighting**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Capital project: _____
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Separate wheels from heels as much as possible with buffers, pleasant pedestrian pathways through parking lots etc.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Pleasant walking environment: Comfortable, safe places to wait, shade trees, special pavement, public art**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Maintenance: Light bulbs, tree trimming, sidewalk condition, snow removal, graffiti removal, street sweeping, grass mowing**
  - ❑ Building code
  - ❑ Work with state agency: _____
  - ❑ Operations (operating budget, town staff, inspections, contract with another agency or business)
- **Information & Orientation: street signage and neighborhood identification, clearly articulate rules, warnings and directions. Signage should be consistent, coherent and visible, pedestrian, cyclist and vehicular signage. Define borders and boundaries.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Plan/development review process
  - ❑ Need information or assistance

<u>Design for all users</u>
- **Codes are ADA compliant.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Need information or assistance

- Minimize grade changes, glare and shadows. Provide long sight distances, longer crossing times, and rest areas. Provide buffers and snow storage areas between the street and sidewalk.
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- Adopt basic sidewalk standards and dimensions.
  - 5' with green strips, 8' without
  - Commercial sidewalks—7.5' to 15' wide
  - Green strips—5' wide
  - Vertical clearance—8'
  - Tree/obstacle clearance—2.5'
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Plan/development review process
- Intersection design, crosswalks
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- Provide frequent & safe pedestrian crossings (mid-block if necessary)
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- Crosswalks & curb ramps
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Construction inspection
  - ❑ Need information or assistance

Continuous, connected, direct and convenient

- Offer a clear, direct route to and from destinations. Provide access from public transit, accessible parking, public streets, and passenger loading zones to the entrances they serve
- Provide visible, continuously linked facilities within a parcel, between parcels, and from each parcel to the surrounding neighborhood
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process

- **Minimize dead-end streets, cul-de-sacs and loop roads. Limit length to 200 feet where allowed.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Provide sidewalk connections every 250 to 300 feet**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Extend existing street grid into new developments.**
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Allow vertical and horizontal mixing of land uses, and require a variety of housing types and sizes.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Zoning change
  - ❑ Building design guidelines
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Locate and design public facilities such as schools to maximize pedestrian, bicycle and transit access, in addition to access by school buses.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Zoning change
  - ❑ Building design guidelines
  - ❑ Work with state/other agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Other public facilities and institutions should be designed and located to encourage access by pedestrians and support the fabric of the community.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance

- **Design and locate open space and recreation areas to maximize bicycle/pedestrian connections. Do not allow open space to be a barrier to walking and transit.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Construction inspection

Minimize walking distances
- **Reduce or eliminate minimum side yards, setbacks and lot widths. Consider build-to lines**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Plan/development review process
- **Restore or demolish abandoned and neglected buildings and properties.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Operations (operating budget, town staff, inspections, contract with another agency or business)
  - ❑ Need information or assistance
- **Encourage development of vacant and infill parcels**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Operations (operating budget, town staff, inspections, contract with another agency or business)
  - ❑ Need information or assistance
- **Parking: Minimize the amount of surface parking. Locate parking to the side and rear of buildings. Use several small lots instead of one big ugly sea of asphalt**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Screen dead spaces with attractive walls, hedges or berms. Require landscaping. Screens, walls & fences should allow for observation of public spaces.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Plan/development review process

Building Design and Placement

- **Bring buildings close to the street. Set back garages away from the street, behind the building facade. Incorporate plazas and seating at entrances.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Plan/development review process
- **Locate doors, windows and activity areas facing street. No blank walls, lots of windows at street level. Use articulation to reduce the scale of large buildings.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building design guidelines
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Avoid large changes in scale**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Zoning Change
  - ❑ Building design guidelines
  - ❑ Need information or assistance
- **Preserve and protect older and historic buildings**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Building code
  - ❑ Zoning Change
  - ❑ Building design guidelines
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance

Design streets for cars AND pedestrians

- **Minimize street width and design speed. Allow on-street parking. Design intersections for pedestrian safety, minimize crossing distance and maximize visibility.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
  - ❑ Need information or assistance
- **Use short blocks and T intersections in residential areas.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process
- **Slow traffic with traffic calming measures.**
  - ❑ Revisions to subdivision/zoning codes
  - ❑ Capital project: _____
  - ❑ Special project (i.e. redevelopment, economic development)
  - ❑ Work with state agency: _____
  - ❑ Plan/development review process

❑ Need information or assistance
- **Reduce the impact of driveways: controlled/channeled entrances, continue sidewalk, maximum driveway widths**
    - ❑ Revisions to subdivision/zoning codes
    - ❑ Work with state agency: _____
    - ❑ Plan/development review process
    - ❑ Need information or assistance

Make the most of transit
In addition to all of the above:
- **Provide appropriately located and lighted stops and pull-offs**
    - ❑ Revisions to subdivision/zoning codes
    - ❑ Capital project: _____
    - ❑ Work with state agency: _____
    - ❑ Plan/development review process
    - ❑ Need information or assistance
- **Provide comfortable and safe places to wait.**
    - ❑ Revisions to subdivision/zoning codes
    - ❑ Work with state agency: _____
    - ❑ Plan/development review process

Code Revisions
- ❑ **Review process**
- ❑ **Mixed uses**
- ❑ **Area standards**
- ❑ **Open space**
- ❑ **Sidewalks**
- ❑ **Street trees and landscaping**
- ❑ **Parking requirements and parking lot design**
- ❑ **Block length**
- ❑ **Historic preservation**
- ❑ **Fencing and screening**
- ❑ **Building code and design**
- ❑ **Sign regulations**
- ❑ **Lighting**
- ❑ **Residential & employment density along transit routes**

Development Review
- ❑ **Pedestrian and Vehicular Connections**
- ❑ **Shared parking & cross-access easements**
- ❑ **Extending the street grid**
- ❑ **Parking and site design**
- ❑ **Landscape plan**
- ❑ **Circulation plan**
- ❑ **Orientation of doors and entry plazas**

Maintenance
- ❑ Keep pedestrian facilities and lighting in good condition
- ❑ Remove snow, trash and graffiti quickly
- ❑ Maintain landscaping to avoid encroachment and blocked sightlines
- ❑ Light bulb replacement
- ❑ Tree trimming
- ❑ Sidewalk repairs
- ❑ Snow removal
- ❑ Graffiti removal
- ❑ Street sweeping
- ❑ Grass mowing

Capital Improvements
- ❑ Sidewalks
- ❑ Streetscape improvements
- ❑ Parking facilities
- ❑ Landscaping
- ❑ Lighting
- ❑ Burying utilities

Funding
- ❑ Operating budget
- ❑ Capital budget & programming
- ❑ Grants and other sources of public money
- ❑ Other sources
    - Developer contributions
    - Homeowners
    - Businesses
    - Sponsors, Partners

****

Mix of Land Uses: Specific uses recommended near residential and employment
- Schools & educational facilities
- Commercial office buildings
- Restaurants, taverns, coffee shops
- Parks and recreation facilities
- Neighborhood-scale retail such as news stands, dry cleaners
- Civic, institutional uses
- Grocery stores
- Child care

"Implementation Checklist," Lorene J. Athey, UD IPA, Handout for Planning 105:
Walkable Communities, May 3, 2007

Glossary

The glossary compiles and defines terms that are essential or useful in order to understand the material in this resource guide. This vocabulary list is intended to be a companion to the reader so one becomes comfortable with the jargon used herein. The terms are separated into two groups: (1) healthy planning, which contains words and phrases pertinent to the planning of healthy/walkable communities; and (2) general planning, which contains the basic language of planning commissioners as manifested in comprehensive plans and ordinances of the government, whether state, county, or local.

Healthy Planning

Best Practice—"generally recognized optimal way of performing a task" (Shafritz, 321).

Brownfields—"typically abandoned or underused commercial and industrial properties that contain some contamination that may affect their future constructive use" ("Healthy Community Design").

Brownfield Redevelopment—"[o]nce cleaned up to acceptable environmental standards—the property's future use will determine the necessary cleanup level—brownfields can become viable economic development centers, attracting growth that may otherwise spill out onto the urban-rural fringe" ("Healthy Community Design").

Built Environment—"the street layout, zoning, recreation facilities, parks and location of public buildings among other design elements" ("Healthy Community Design").

Carpools—they "bring together employees who travel from the same area in one vehicle, thereby reducing traffic and parking congestion while improving air quality" ("Livable Neighborhoods").

Curb Cuts—"space within a curb that is cut away to create a flat area convenient for bicycles, wheelchairs, and strollers" ("Healthy Places Terminology").

Destinations (NED)—"[w]alking for its own sake is nice, but most people walk to get somewhere"; consideration is given to daily functions of residents and land-use patterns that promote better access to destinations (Lehman, 6).

Environment (NED)—"[a]t the human scale and the pedestrian pace, a walk allows for maximum enjoyment of the neighborhood or city environment"; consideration is given to aesthetics, security, and close "building orientation" to walkways (Lehman, 6).

Greenfield—"[f]armland and open areas where there has been no prior industrial or commercial

activity, and therefore where the threat of contamination is much lower than in urbanized areas" (Dane County Comprehensive Plan).

Greenways—"corridors of protected open space managed for conservation and recreation purposes" ("Healthy Community Design").

Greenbelts—"continuous bands of open space or resource land around towns and cities" (McMahon, 34).

Main Street—"neighborhood shopping area and business district, sometimes having a unique character that draws people from outside the area" (Dane County Comprehensive Plan).

Maintenance—"keeping facilities in good repair and up to proper standards in order to provide dependable access, safety, and security" (O'Donnell, 16).

Mixed-Use Development—"a strategy that authorizes local governments to use their planning and zoning authority to site appropriate residential, retail, office and educational facilities within close proximity to each other to encourage walking and biking as a routine part of everyday life" ("Healthy Community Design").

NED—"a three-pronged approach to assessing a community's walkability: the network, environment, and destinations" ("Healthy/Walkable Communities Initiative," 3)

Network (NED)—"[j]ust as cars require a continuous, well-maintained road system to travel, pedestrians require a network suitable for safe, comfortable walking"; good network is characterized by continuous sidewalks, crosswalks in appropriate places, and direct routes (Lehman, 5).

New Urbanism—"process of reintegrating the components of modern life - housing, workplace, shopping and recreation - into compact, pedestrian-friendly, mixed-use neighborhoods linked by transit and set in a larger regional open space framework" (Dane County Comprehensive Plan).

Pedestrian-Friendly—describes an "area that caters to the needs of pedestrians" ("Healthy Places Terminology").

Quality of Life—"[r]eferring to an overall sense of well-being with a strong relation to a person's health perceptions and ability to function" ("Healthy Places Terminology").

Rail-Trails—"multi-purpose public paths created from former railroad corridors" ("Healthy Community Design").

Road Sense—"pedestrian skills for dealing with traffic" ("Livable Neighborhoods").

Safety—"protection from the risk of injury, design hazards, and conflicts" (O'Donnell, 16).

Security—"freedom from the occurrence or fear of criminal activity" (O'Donnell, 16).

Sense of Place—"[i]n an increasingly homogenous world, a community with its own feel and flavor stands out" (McMahon, 7).

Shared-Use Paths—"paved or unpaved facility used by a range of non-motorized travelers" (O'Donnell, 5).

Sidewalks—"paved walkways typically running parallel to a roadway" including "crosswalks as part of the sidewalk system" (O'Donnell, 4).

Smart Growth—growth that "makes it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment" (Getting to Smart Growth, i).

Sprawl—"development pattern characterized by the following traits:
1. No boundaries; unlimited outward expansion
2. Low-density residential and commercial settlements
3. Widespread strip commercial development; sporadic or 'leapfrog' development
4. Responsibility for land-use and zoning decisions fragmented among various jurisdictions
5. Private automobiles dominate transportation options; inconvenient or no public transportation available
6. Great differences in economic status among residential neighborhoods
7. Land use segregated into specific zones; no mixed-use development"
("Healthy Places Terminology").

Telework—"[s]ubstitute phone and email for physical travel when work allows" ("Livable Neighborhoods").

Trails—"paths used for walking, bicycling, horseback riding or other forms of recreation or transportation" ("Healthy Community Design").

Transit-Oriented Development—"development includes bus and rail options in the transportation component of a local government's comprehensive plan" ("Healthy Community Design").

Walkable Neighborhoods—neighborhoods "characterized by proximity (a mix of homes, shops, schools and other destinations) and connectivity (streets providing direct routes and safe connections to destinations for pedestrians and bicyclists)" (Increasing Active Living, 5).

Walking School Bus—"a group of children walking to school with one or more adults." (National Center for Safe Routes to School).

General Planning

Aesthetic Zoning—"regulation of building design and site developments in the interest of appearance" (Solnit, 10).

Capital Improvement Program—"governmental timetable of permanent improvements budgeted to fit fiscal capability some years into the future" (Solnit, 12).

Cluster Development—"development design technique that concentrates buildings in specific areas on a site to allow remaining land to be used for recreation, common open space, or the preservation of historically or environmentally sensitive features" (Dane County Comprehensive Plan).

Comprehensive Plan—"[c]omprehensive plan means a document in text and maps, containing at a minimum, a municipal development strategy setting forth the jurisdiction's position on population and housing growth within the jurisdiction, expansion of its boundaries, development of adjacent areas, redevelopment potential, community character, and the general uses of land within the community, and critical community development and infrastructure issues" (Delaware Code, Title 22: §702, b).

Conditional Use—"use that may locate in certain zoning districts provided it will not be detrimental to the public health, morals, and welfare and will not impair the integrity and character of the zoned district" (Solnit, 14).

Dedication—"turning over of private land for a public use by an owner or developer, and its acceptance for such use by the governmental agency in charge of the public function for which it will be used" (Solnit, 16).

Easement—"right to use property owned by another for specific purposes" (Solnit, 18).

Eminent Domain—"right of a government to make a taking of private property for public use or benefit upon payment of just compensation to the owner" (Solnit, 18).

Impact Fee—"payment of money imposed on development activity as a condition of granting development approval in order to finance the facilities needed to service the new growth and development activity" (Dane County Comprehensive Plan).

Infill Development—"[d]evelopment that takes place within existing infrastructure instead of building on previously undeveloped land" ("Healthy Places Terminology").

Infrastructure—"[g]oods and services that are regarded as essential to the functioning of a developing economy" which "includes such things as power, transport, roads, housing, education, health and other social services" (Dane County Comprehensive Plan).

Neighborhood—"smallest subarea in city planning, defined as a residential area whose residents have public facilities and social institutions in common, generally within walking distance of their homes" (Solnit 24).

Open Space—"[t]hat part of the countryside which has not been developed and which is desirable for preservation in its natural state for ecological, historical, or recreational purposes, or in its cultivated state to preserve agricultural, forest, or urban greenbelt areas" (Solnit, 26).

Overlay Zones—they "are imposed over existing zoning districts" and "provide an additional layer of development standards to address special land-use needs" (Hoch, 359).

Payment in Lieu of Dedication—"[c]ash payments required as a substitute for a dedication of land by an owner or developer, usually at so many dollars per lot" (Solnit, 16).

Permitted Uses—"activities that are specifically allowed without discretionary review" in a given zone (Hoch, 350).

Planning Commission—"typically composed of seven to nine members appointed by the chief elected official or governing body" and its "role typically involves initiating or reviewing comprehensive revisions to community plans, zoning maps, zoning ordinances, and subdivision regulations" (Hoch, 347).

Right-of-Way—"right of passage over the property of another" (Solnit, 30).

Setback—"minimum distance required by zoning laws to be maintained between a building and the street or between a structure and property lines" ("Healthy Places Terminology").

Subdivision Regulations—"land-use controls that govern the division of land into two or more lots, parcels, or sites for building" and they describe "(1) the procedures that a subdivider must follow to obtain approval by a local government, (2) the criteria for the internal design of a subdivision, and (3) construction standards for public improvements in the subdivision" (Hoch, 362).

Urban Fringe—"area at the edge of an urban area usually made up of mixed agricultural and urban land uses" where "leapfrogging or sprawl is the predominant pattern" (Solnit, 34).

Zoning—"[l]ocal codes regulating the use and development of property within specific categories" ("Healthy Places Terminology").

Zoning District—"section of a city or county designated in the zoning ordinance text and (usually) delineated on the zoning map, in which requirements for the use of land and building and development standards are prescribed" (Solnit, 37).

Zoning District Regulations—they "describe the purposes of each district or zone, the uses permitted as-of-right or conditionally, and the development standards applicable to each district" (Hoch, 350).

Bibliography

2010 Richmond Trail Strategy. March 2003. *City of Richmond, Canada: Parks, Recreation, and Cultural Services Division*. 25 March 2008. <www.richmond.ca/__shared/assets/2010trails_report8409.pdf>.

Abele, Susan. Community Recreation and Parks: a Handbook for Pennsylvania Municipalities. Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation, and the Pennsylvania Recreation and Park Society, Inc. 2003. 29-34.

"About ALbD." Active Living by Design: Increasing Physical Activity Through Community Design. Robert Wood Johnson Foundation and UNC School of Public Health. 11 Dec. 2007 <www.activelivingbydesign.org/index.php?id=499>.

"About HTN." Healthy Transportation Network. California Center for Physical Activity. 10 Dec. 2007 <www.healthytransportation.net/about.html>.

"About NCSL: Mission & Governance." 2007. *National Conference of State Legislatures*. 17 Dec. 2007 <www.ncsl.org/public/govern.htm>.

"About PRO." PRO. Parks and Recreation Ontario. 4 Dec. 2007 <www.prontario.org/about.html>.

"About the Coalition." 2005. *Complete The Streets*. 19 Feb. 2008 <www.completestreets.org/about.html>.

"About the National Trust Main Street Center." 2007. *National Trust for Historic Preservation*. 17 Dec. 2007 <www.mainstreet.org/content.aspx?page=2&section=1>.

"About Us: What is the DNP." *Downtown Newark Partnership*. 17 Dec. 2007 <newark.de.us/downtown/About_Us.htm>.

"ACES - Active Community Environments Initiative." Center for Disease Control and Prevention. 22 May 2007. Department of Health and Human Services. 10 Dec. 2007. <www.cdc.gov/nccdphp/dnpa/physical/health_professionals/active_environments/aces.htm>.

"Active Living Network - About." Active Living Network. 10 Dec. 2007 </www.activeliving.org/about>.

Ames, Steven C. 1997. "Community Visioning: Planning for the Future in Oregon's Local Communities." San Francisco, CA: APA Conference Proceedings. 27 May 2008. <www.design.asu.edu/apa/proceedings97/ames.html>.

Annapolis Municipal Code. 2002. *City of Annapolis, Maryland*. 11 Dec. 2007. <www.ci.annapolis.md.us/>.

Army Corps of Engineers. March 1981. Installation Design: Improving the Visual Environment. 5 May 2008. < www.usace.army.mil/publications/armytm/tm5-803-5/c-8.pdf>.

Athey, O'Donnell, and DeCoursey. 11 April 2005. "Mobility Friendly Design Standards: Recommendations for Delaware." *University of Delaware Institute for Public Administration*.

Baldwin, Claire. "A 30,000-Foot View: Visioning Sets the Way." June 2008. Public Management. Washington, D.C.: ICMA

Barrett, Marihelen. The Built Environment and Public Health. Wilmington, DE: Nemours Health and Prevention Services, 2004.

"Benefits of Rail-Trails." 2007. *Rails-to-Trails Conservancy*. 14 May 2008 <www.railstotrails.org/whatwedo/railtrailinfo/benefits.html>.

Bowman, Joel P. "The Advantages of Oral Communication." <u>Oral Communication</u>. 21 Aug. 2002. West Michigan University. 8 Jan. 2008 <homepages.wmich.edu/~bowman/oral.html>.

Brandywine Conservancy. <u>Community Trails Handbook</u>. Chadds Ford, PA: Brandywine Conservancy, 1997.

Bridgeville Municipal Code. 2007. *Town of Bridgeville, Delaware*. 11 Dec. 2007. <www.townofbridgeville.net>.

"Brochures Flyers." <u>Community Tool Box</u>. 5 June 2002. Rivers, Trails, Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/writcom_brochures.htm>.

Brown, Brigit. "Sustainable Trail Design." Wisconsin Department of Natural Resources. 4 Mar. 2008 <www.dnr.state.wi.us/org/land/parks/trails/council/minutes/sustainabletrails.pdf>.

<u>City of Dover</u>. 2007 - 2007 Final Budget. City of Dover, Delaware. 6 Dec. 2007. <www.cityofdover.com/information/documents/budget>.

<u>Claymont Community Redevelopment Plan, 2004</u>. New Castle County, Delaware. 14 May 2008 <www.co.new-castle.de.us/landuse/home/fileuploads/images/claymontpage/claymont%20plan%20chapter%201.pdf>.

<u>Code of Kent County, Delaware</u>. 2004. *Kent County, Delaware*. 14 May 2008 <www.co.kent.de.us/Codes.html>.

<u>Code of Sussex County, Delaware</u>. 2008. *Sussex County, Delaware*. 14 May 2008 <www.sussexcountyde.gov/government.cfm>.

<u>College Park Municipal Code</u>. 29 Nov. 2007. *City of College Park, Maryland*. 11 Dec. 2007. <www.ci.college-park.md.us>.

"Complete Streets Help Keep Kids Safe!" 2005. *Complete The Streets.* 19 Feb. 2008 <completestreets.org/documents/cs-kids-screen.pdf>.

"Consensus Building." <u>Community Tool Box</u>. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 26 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/dec_consensus.htm>.

"Core Principles of CSS." 2005. *Context Sensitive Solutions.org*. 14 May 2008 <www.contextsensitivesolutions.org/content/topics/what_is_css/core-principles>.

<u>Cumberland Municipal Code</u>. 7 Dec. 2007. *City of Cumberland, Maryland*. 11 Dec. 2007. <www.ci.cumberland.md.us>.

Dane County (Wisconsin) Department of Planning and Development. *Dane County Comprehensive Plan*. "Glossary of Terms." October 2007. <danedocs.countyofdane.com/webdocs/PDF/PlanDev/ComprehensivePlan/draftplan/VOLIII_Glossary.pdf>. 28 Nov. 2007.

<u>Dane County Comprehensive Plan</u>. 18 Feb. 2008. *Dane County, Wisconsin*. 21 Feb. 2008 <danedocs.countyofdane.com/webdocs/PDF/PlanDev/ ComprehensivePlan/draftplan/VOLIII_Glossary.pdf>.

DeCoursey, William J. and Lorene Athey. "Transit-Oriented Design - Illustration of TOD Characteristics, Draft." Newark, DE: Institute for Public Administration, University of Delaware, Nov. 2007.

<u>Delaware City Municipal Code</u>. *Delaware City, Delaware*. 11 Dec. 2007. <www.delawarecity.delaware.gov>.

<u>Delaware Code</u>. 25 Sep. 2007. *State of Delaware*. 17 Dec. 2007. <delcode.delaware.gov>.

"Delaware Main Street." 17 Dec. 2007 <www.dedo.delaware.gov/MainStreet/httpdocs/>.

"Delaware's Municipalities: Facts and Figures." 21 May 2007. *State of Delaware*. 11 Dec. 2007. <stateplanning.delaware.gov/information/municipalities.shtml>.

Delaware Valley Regional Planning Commission. *Horizons 2025 Implementation Municipal Tools and Techniques*. April 2002. <www.dvrpc.org/asp/Pubs/reports/MIT000.pdf>.

Delaware Valley Regional Planning Commission. Horizons 2025 Implementation: Municipal Tools and Techniques: Land Use - Planning and Policy, April 2002.

DelDOT. Phase I: Policy Analysis - Delaware Statewide Pedestrian Action Plan, 2007. Dover, DE: Delaware Department of Transportation, 2007.

Derry, Mark. "Latest ADA Guidelines: Design, Engineering, and Construction Issues." IPA Policy Forum: 21 Feb. 2008. Sidewalks and Shared-Use Paths: Improving Mobility and Designing Transit-Ready Communities. University of Delaware, Institute for Public Administration.

"Displays." Community Tool Box. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/vicom_displays.htm>.

Elsmere Municipal Code. 2003. *Town of Elsmere, Delaware*. 11 Dec. 2007. <www.townofelsmere.com>.

Emory, Gary. Personal Interview. March 2008.

"Executive Order No. 14 Regarding Gov. Minner's 'Livable Delaware' Agenda." 5 Oct. 2007. *State of Delaware*. 15 Nov. 2007 <governor.delaware.gov/orders/eo_14.shtml>.

"Executive Order Number Eighty-Three Creating an Advisory Council on Walkability and Pedestrian Awareness." 5 Oct. 2007. *State of Delaware*. 27 Feb. 2008 <governor.delaware.gov/orders/eo83.shtml>.

"FHWA and Context Sensitive Solutions (CSS)." 22 April 2008. *U.S. Department of Transportation Federal Highway Administration*. 14 May 2008. <www.fhwa.dot.gov/context/index.cfm>.

"Findings From the Field." Apr. 2005. Points of Light Foundation and Volunteer Center National Network. 30 May 2006 <www.pointsoflight.org/downloads/pdf/resources/research/findingsfield_2005-04.pdf>.

"Form-Based Codes: Implementing Smart Growth." June 2005. Local Government Commission. 24 April 2008. <www.lgc.org/freepub/PDF/Land_Use/fact_sheets/form_based_codes.pdf>.

"From Vision to Action: Strategies for Advancing Transit-Oriented Development." Brochure. San Carlos, CA: San Mateo County Transit District, September 2007.

Good Jobs First. Research Manual. "Glossary of Economic Development Jargon." <www.goodjobsny.org/glossary.htm>. 19 May 2005.

"Gov. Ruth Ann Minner, Lt. Gov. John Carney Unveil 'Livable Delaware' Agenda to Control Growth." 17 July 2007. *State of Delaware*. 15 Nov. 2007 <governor.delaware.gov/news/2001/03march/03222001%20%20livable%20delaware.shtml>.

"Health Management Practice Resource." National Recreation and Parks Association. 14 Jan. 2008. <www.nrpa.org/content/default.aspx?documentId=6268>.

"Health Organizations and Parks and Recreation Advocates Unite." 29 March 2004. National Recreation and Parks Association. 14 Jan. 2008. <www.nrpa.org/content/default.aspx?documentId=1076>.

"Healthy Community Design." May 2005. *National Conference of State Legislatures*. 15 Nov. 2007 <www.ncsl.org/programs/environ/healthyCommunity/landuse.htm>.

"Healthy Communities Tool Kit." <u>MDCH Healthy Living</u>. 2006. Michigan Department of Community Health. 5 Dec. 2007 <www.michigan.gov/documents/HealthyCommunitiesToolKit_Web_167445_7.pdf>.

"Healthy Places Terminology." *Centers for Disease Control and Prevention*. 21 Feb. 2008 <www.cdc.gov/healthyplaces/terminology.htm>.

Hesselbarth, Woody, and Brian Vachowski. "Trail Construction and Maintenance Notebook: 2004 Edition." <u>Federal Highway Administration</u>. 29 Sept. 2004. <u>United States Department of</u>. 4 Mar. 2008 <www.fhwa.dot.gov/environment/fspubs/00232839/index.htm>.

"History: Delaware City." *Delaware City, Delaware*. 29 Feb. 2008 <delawarecity.info/history.html>.

"I-5/SR 509 Freight and Congestion Relief - Glossary." <u>WSDOT Projects</u>. Washington State Department of Transportation. 19 Dec. 2007 <www.wsdot.wa.gov/Projects/I5/SR509FreightCongestionRelief/glossary.htm >.

"Inactive America: What Can Parks Do?" National Recreation and Park Association. 14 Jan. 2008. <www.nrpa.org/content/default.aspx?documentId=3743>.

"In the News." Sept. 2005. Form-Based Codes Institutes. 24 April 2008. <www.formbasedcodes.org/news.html>.

<u>Increasing Active Living: A Guide for Policy-Makers</u>. Washington, D.C.: Leadership for Healthy Communities, 2007.

International City/County Management Association and National League of Cities. (1997). *Building Citizen Involvement: Strategies for Local Government*. (Chapter 1, p.12).

International City/County Management Association and the Smart Growth Network. <u>Getting to Smart Growth: 100 Policies for Implementation</u>. Washington, DC: ICMA, 2002.

International City/County Management Association and the Smart Growth Network. <u>Getting to Smart Growth II: 100 More Policies for Implementation</u>. Washington, DC: ICMA, 2003.

Interview held on February 14, 2008 with David Bartoo, Trail Planner of Department of Natural Resources and Environmental Control of Delaware

Johnson, Russ. <u>Creating Connections: the Pennsylvania Greenways and Trails How-to Manual</u>. Pennsylvania Greenways Partnership Commission. 1998. 19-22.

Jones, Robert. "Consensus Building Tools For." <u>Policy Consensus Initiative</u>. National Policy Consensus Center. 20 Dec. 2007 <www.policyconsensus.org/publications/reports/consensus_building_tools.html>.

<u>Kent County Comprehensive Plan, 2007: Public Hearing Draft</u>. 2004. *Kent County Levy Court, Delaware*. 14 May 2008. <www.co.kent.de.us/Departments/Planning/Zoning/documents/FullPublicHearingDraft-Clean_000.pdf>.

Lehman, Megan and Michelle Boyle. <u>Healthy & Walkable Communities</u>. Newark, DE: University of Delaware Institute for Public Administration, July 2007.

"LHC Homepage." *Leadership for Healthy Communities*. 17 Dec. 2007
<www.leadershipforhealthycommunities.org>.

"LHC Overview." *Leadership for Healthy Communities*. 17 Dec. 2007
<www.leadershipforhealthycommunities.org/AbouOver-3886.html>.

Litman, Todd Alexander. "Economic Value of Walkability." *Transportation Research Record* 1828 Paper No. 03-2731 (2003): 3-11.

"Livable Neighborhoods." 26 Feb. 2007. State of Delaware. 15 Nov. 2007
<stateplanning.delaware.gov/livedel/information/ln_intro.shtml>.

"Local Secrets, Big Finds: Bug and Bud Festival, Milford." 1996-2008. Travelocity. 15 Apr. 2008
<svc.travelocity.com/promos/localsecrets_2007_delaware/0,TRAVELOCITY,00.html>.

London Grove Municipal Code. *London Grove Township, Pennsylvania*. 11 Dec. 2007. <www.londongrove.org>.

McMahon, Edward T., Shelley S. Mastran, and Blaine Phillips, Jr. Better Models for Development in Delaware: Ideas for Creating More Livable and Prosperous Communities. Centreville, DE: The Conservation Fund, 2004.

Miami-Dade County Office of Strategic Business Management. November 2004. "A Guide to Results-Oriented Government and Performance Measurement."

"Milford's Fifth Annual Bug & Bud Festival." 2005. *Downtown Milford Inc., Delaware*.
14 Apr. 2008 <www.downtownmilford.org/festival.html>.

Milford Municipal Code. *City of Milford, Delaware*. 11 Dec. 2007. <www.cityofmilford.com>.

"Mispillion Greenway: An Overview." Pamphlet. Milford, DE: Milford Parks & Recreation Dept., 2006.

"Mispillion Greenway Walking Trail and Tour: Promoting Milford's Health and History." Brochure. Milford, DE: Milford Parks & Recreation Dept., 2006.

"Mission, Vision, Goals." National Recreation and Park Association. 4 Dec. 2007
<www.nrpa.org/content/default.aspx?documentId=490>.

Moore, James A. "Context Sensitive Solutions." HDR Community Planning and Urban Design Group.
Community Connection Newsletter Winter 2008.

Morrill, Paul. Personal Interview. 5 Feb. 2008.

National Center for Safe Routes to School. "Start a walking school bus: the basics."   8 July 2008.
<www.walktoschool.org>.

"National Trails Training Partnership." American Trails. 4 Feb. 2008. 4 Mar. 2008
<www.americantrails.org/nttp/default.htm>.

"Neighborhood Meeting." Planning and Development Services. City of Shoreline. 19 Dec. 2007
<cosweb.ci.shoreline.wa.us/uploads/attachments/pds/handouts/neighborhood%20meeting.pdf>.

Newark Municipal Code. *City of Newark, Delaware*. 11 Dec. 2007. <www.cityofnewarkde.us>.

Newark Municipal Code. 2004-2007. *City of Newark, New Jersey*. 11 Dec. 2007. <www.ci.newark.nj.us>.

New Castle County Unified Development Code. *New Castle County, Delaware*. 14 May 2008. <www.co.new-castle.de.us/CZO/nccportal.asp>.

"Newsletters." Community Tool Box. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/writcom_newsletters.htm>.

"Observations From the Volunteering Front Line." May 2005. Points of Light Foundation and Volunteer Center National Network. <www.pointsoflight.org/downloads/pdf/resources/research/Frontline4.pdf>.

Office of Chamber of Commerce for Greater Milford, Delaware. Personal Correspondence. March 2008.

"Other Opportunities: Project Team Support." Volunteers for Outdoor Colorado. Outdoor Colorado. 12 June 2006 <www.voc.org/page.php?pname=involved/other>.

"Overweight and Obesity: At a Glance." 11 Jan. 2007. *U.S. Department of Health & Human Services*. 14 May 2008 <www.surgeongeneral.gov/topics/obesity/ calltoaction/fact_glance.htm>.

"Partnerships and Programs for Health." National Recreation and Park Association. 14 Jan. 2008. <www.nrpa.org/content/default/aspx?documentId=6375>.

Persky, J. and Wiewel, W., ed. Suburban Sprawl: Private Decisions and Public Policy, Armonk, NY: M.E. Sharpe, 2002.

"Pioneering Healthier Communities." YMCA Activate America. 22 June 2006. YMCA. 4 Dec. 2007 <www.ymca.net/downloads/aa_phc_lessons_learned_report.pdf>.

Pocopson Municipal Code. *Pocopson Township, Pennyslvania*. 11 Dec. 2007. <www.pocopson.org/index.htm>.

"Preface." Safe Routes to School: Practice and Promise. Safe Routes to School. 4 Dec. 2007 <www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2004/pages/preface-1.htm>.

"Press Releases." Community Tool Box. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/writcom_press.htm>.

Prince George's County (Maryland) Planning Board, Prince George's County Planning Department. "Glossary of Planning Terms." <www.mncppc.org/html/glossary2.htm.> 28 Nov. 2007.

"Public Solutions." Policy Consensus Initiative. National Policy Consensus Center. 20 Dec. 2007 <www.policyconsensus.org/publicsolutions/index.html>.

Rathke, David M., and Melvin J. Baughman. "Recreational Trail Design and Construction." 2008. University of Minnesota. <www.extension.umn.edu/distribution/naturalresources/DD6371.html>.

Realizing the Vision: 2040 Regional Framework Plan. 2007. Northeast Illinois Planning Commission. 21 May 2008. < www.nipc.org/2040/english/introduction.shtml>.

Rossman, Robert and Schlatter, Barbara. Recreation Programming: Designing Leisure Experiences. Champaign, IL: Illinois State University, 5th edition, 2008.

Ryan, Bill. "Economic Benefits of A Walkable Community." C*enter for Community Economic Development, University of Wisconsin–Extension*. Newsletter Issue 83, July 2003.

"Select Your Tools." Community Tool Box. 27 Jan. 2003. Rivers, Trails, and Conservation Assistance Program. 1 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/index_comtoolbox.htm>.

Sidewalks and Shared-Use Paths: Improving Mobility and Designing Transit-Ready Communities. Newark, DE: Institute for Public Administration, University of Delaware, 2008.

Smyrna Municipal Code. 2003-2007. *Town of Smyrna, Delaware*. 11 Dec. 2007. <www.smyrnadelaware.com/>.

"Speakers Bureau." Community Tool Box. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/out_speakers.htm>.

Squires, Chase. "New Urban Designs Sought in Obesity Fight." 16 June 2006. Washington Post. 15 Nov. 2007 <www.washingtonpost.com/wpdyn/content/article/2006/06/16/AR2006061600193.html>

State of Delaware. "Livable Delaware Agenda." March 2001. <www.stateplanning.delaware.gov/livedel/default.shtml>. 28 Nov. 2007.

Sussex County Comprehensive Plan Update, 2008. 2008. *Sussex County, Delaware*. 14 May 2008 <www.sussexcountyde.gov/compplan/>.

"Telephone & Email." Community Tool Box. 5 Jan. 2002. Rivers, Trails, and Conservation Assistance Programs. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/out_telephone.htm>.

"The Main Street Approach: The Four Points." 2007. *National Trust for Historic Preservation*. 17 Dec. 2007 <mainstreet.org/content.aspx?page=47&section=2>.

"Tip Sheet- Engaging the Community." Mobilizing for Action Through Planning and Partnerships. 2 Oct. 2007 <mapp.naccho.org/EngagementTipSheet.asp>.

Town of Bethany Beach Comprehensive Plan. 22 Sep. 2005. *University of Delaware Institute for Public Administration*. 11 Dec. 2007 <www.ipa.udel.edu/localgovt/municipalities/bethanybeach>.

Town of Bridgeville Comprehensive Plan. 29 Nov. 2005. *University of Delaware Institute for Public Administration*. 11 Dec. 2007. <www.ipa.udel.edu/localgovt/municipalities/bridgeville>.

Town of Clayton Comprehensive Plan. 29 Mar. 2006. *University of Delaware Institute for Public Administration*. 11 Dec. 2007 <www.ipa.udel.edu/localgovt/municipalities/clayton>.

Town of Elsmere Comprehensive Plan. 15 Sep. 2004. *University of Delaware Institute for Public Administration*. 11 Dec. 2007. <www.ipa.udel.edu/localgovt/municipalities/elsmere>.

Town of Middletown Comprehensive Plan. 24 Jan. 2006. *University of Delaware Institute for Public Administration*. 11 Dec. 2007. <www.ipa.udel.edu/localgovt/municipalities/middletown>.

Town of Townsend Comprehensive Plan. 12 Oct. 2005. *University of Delaware Institute for Public Administration*. 11 Dec. 2007. <www.ipa.udel.edu/localgovt/municipalities/townsend>.

"Trail Design and Construction." National Trails Training Partnership. 1 Feb. 2008. American Trails. 4 Mar. 2008 <www.americantrails.org/resources/trailbuilding/MAsustain.html>.

Trails and Greenways Master Plan. The City of Greenville. 27 Mar. 2008 <www.greatergreenville.com/city_services/greenwaysmasterplan/pdf>.

Trail & Path Planning: A Guide for Municipalities. West Chester, PA: Chester County Planning Commission, 2007.

"Trail Towns: Capturing Trail-Based Tourism." Guide. Latrobe, PA: Allegheny Trail Alliance, 2005.

"Transit-Oriented Development (TOD)." Brochure. Philadelphia, PA: Delaware Valley Regional Planning Commission, August 2002.

Trenton Municipal Code. 1999-2006. *City of Trenton, New Jersey*. 11 Dec. 2007. <www.ci.trenton.nj.us/>.

"Understanding Volunteer Motivations." Merrill Associates. 30 May 2006 <www.merrillassociates.net/topic/2002/12/understanding-volunteer-motivations>.

U.S. Department of Justice (DOJ). A Guide to Disability Rights. Washington, D.C.: DOJ, 1996.

"Virginia Greenways and Trails Toolbox." Guide. Richmond, Virginia: Parsons Harland Bartholomew & Associates, Inc., 2000.

Vogt, A. John. Capital Budgeting and Finance: A Guide for Local Governments. UNC Chapel Hill: Institute of Government, 2004.

"Volunteering in the United States, 2005." Bureau of Labor Statistics. United States Department of Labor. 30 May 2006 <www.bls.gov/news.release/volun.nr0.htm>.

"Volunteer Program Planning." Working Solutions. Sept. 2002. Points of Light Foundation and Volunteer Center National Network. 30 May 2006 <www.pointsoflight.org/downloads/pdf/networks/nonprofitgov/workingsolutions/WS-Sept2002.pdf>.

"Websites." Community Tool Box. 5 June 2002. Rivers, Trails, and Conservation Assistance Program. 21 Nov. 2007 <www.nps.gov/phso/rtcatoolbox/out_websites.htm>.

"Welcome to Delaware City." *Delaware City, Delaware*. 29 Feb. 2008. <www.delawarecity.delaware.gov>.

"What is a Charrette?" National Charrette Institute. 2 Apr. 2008. <www.charretteinstitute.org/charrette.html>.

"What is CSS?" 2 May 2007. U.S. Department of Transportation Federal Highway Administration. 5 Feb. 2008 <www.fhwa.dot.gov/context/what.cfm>.

"What is Leadership for Healthy Communities?" Leadership for Healthy Communities: Advancing Policies to Support Healthy Eating and Active Living. Robert Wood Johnson Foundation. 10 Dec. 2007 <www.leadershipforhealthycommunities.org/>.

"What is WALKArlington." WALKArlington. Arlington, Virginia. 4 Dec. 2007 <www.commuterpage.com/walk/about/>.

"Who We Are." 2005. *Complete The Streets*. 19 Feb. 2008 <www.completestreets.org/whoweare.html>.

"YMCA Leads the Way to Healthier Communities." About the YMCA. YMCA. 4 Dec. 2007 <www.ymca.net/activateamerica/activate_america_leadership.html>.

"Zoning: Talking Points." *Planning for Healthy Places*. 14 May 2008 <www.healthyplanning.org/factsheets/Zoning.pdf>.

Appendix B

Walkability Improvements - Delaware City Promenade Project, Delaware

Before/After Walkability Improvements - James F. Hall Trail, City of Newark

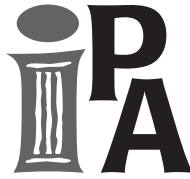## Walkability Improvements - Mispillion Greenway, City of Milford

Before/After - Mulberry Street Improvement Project, Town of Milton

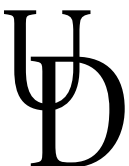## Conceptual Streetscape Design - Town of Townsend

before

before

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