

Chapter 7

IMPLEMENTATION

7.1 Overview

The text in this chapter describes how the Town of Wake Forest can turn the vision of a connected network of safe pedestrian routes into a reality. The strategy for doing so involves the physical changes discussed in Chapter 4, as well as new policy and program considerations covered in Chapter 6. This chapter deals with opportunities and strategies, key implementation steps (implementation policies), phasing of the pedestrian network, necessary staffing, and methods for developing facilities. Together these chapters fit together to form the implementation program.

7.2 Opportunities and Strategies

Among the opportunities to promote the Plan recommendations available to the Town of Wake Forest, is the opportunity to build upon an already committed and active base of citizens, pedestrians, and Downtown leaders and enthusiasts in the area. Through their organizations, institutions, publications, and networks, the Town can get the word out about improved or new pedestrian facilities and programs.

Second among the opportunities, is the availability of the existing pedestrian facilities (Downtown sidewalks, existing trails, etc). Though some changes are being suggested in the short-term and a much expanded network is suggested for the long-term, the presence of an existing network provides a strong foundation from which to build. Residents are already accustomed to seeing pedestrians on sidewalks and trails and should become used to seeing pedestrian walkway and trail signs. Building on their existing awareness is much easier than building on no awareness.

The final category of opportunity is building upon the existing patchwork of destination points. The Downtown,



Figure 7(a):
Kiwanis Greenway



IMPLEMENTATION

schools, parks, and residential and commercial areas, are all places pedestrians currently travel to or would like to travel to. Short connectors between destinations connect with other connectors to the next destination. In the end, long corridors are created from this distribution of linked destination points. The addition of crosswalks and signage will make these destinations more attractive to pedestrians.

From these opportunities comes the framework for an initial implementation strategy:

- 1) Use the base of pedestrians to expand the awareness of the benefits of a walkable community.
- 2) Expand and modify the existing pedestrian route network to a comprehensive, connected, safe system so that it better meets the needs of the community, provides access to all, and enhances the current transportation infrastructure.
- 3) Begin making the critical connections between destination points that will allow for continuous growth of and improvement in the pedestrian transportation network.

These three steps represent the core of the implementation strategy. As the individual policy recommendations and physical recommendations are addressed, they should each fit with one of these three primary strategies.

7.3 Adopting this Plan

The first step in implementation of the Pedestrian Plan is adoption. By adopting the Pedestrian Plan, the community is able to shape larger regional decisions so that they fit within the goals of the plan. The Town also gives itself greater authority in shaping local land use decisions so that they achieve the goals and vision of this plan.



Figure 7(b):
Dr. Calvin Jones House



7.4 Action Steps

After the plan is adopted, implementation of specific recommendations can begin. Many of these will occur simultaneously and include policy and facility improvement changes. The key steps are:

- Create the necessary governance capability and administration (staffing) capability to support and oversee the implementation of this plan and the proper maintenance of the facilities that are developed.
- Secure the funding necessary to undertake the short-term projects and develop a funding strategy that will allow the community to incrementally complete each of the suggested pedestrian facility improvements over a 10 year period. Opportunities are listed below.

Considering Town bond referendum for monies allocated towards pedestrian walkways

Expanding local capital improvements program for yearly appropriation for greenway and sidewalk development

Setting aside money for construction and maintenance of pedestrian facilities

Pursuing and requesting roads within Town be added to TIP program for sidewalk and greenway development/improvement

Applying for monies from North Carolina Safe Routes to School Program to make infrastructure improvements within 2 miles of schools

Pursuing Community Development Block Grants (CDBG) that provide money for capital improvements (including sidewalks and greenways) in low-income neighborhoods.

Seeking other sources of City funding for pedestrian improvements that may include local assessment districts, developer exactions, local bonds, and code enforcement.



Figure 7(c):
Franklin Street



IMPLEMENTATION



Figure 7(d):
Downtown Wake Forest

Pursuing funding from other sources listed in Appendix C-Funding

- Add signs to the recommended network routes so that functional, safe, and updated pedestrian routes and greenways are immediately available to the community. Where worn, used foot paths exist and further greenway development is anticipated, add signs to promote use and safety.
- Develop and implement education and awareness programs such as public events, which can be used to announce new pedestrian routes and some of the upcoming projects.
- Begin working on the proposed facilities that are categorized as short-term phasing projects, which are outlined in Appendix B and on Map 7.1.
- Ensure that pedestrian planning is integrated with other transportation planning efforts at the state and local level, as well as with long-range and current land use, economic development, parks and recreation, environmental, and community planning.
- Coordinate pedestrian improvement projects with scheduled street re-paving, streetscaping, and other utility work.

7.5 Pedestrian Network Prioritization and Phasing

7.5.1 Sidewalk Projects

From the overall pedestrian network described in Chapter 4, facilities were phased into short-term (0-3 years), medium-term (4-7 years), and long-term (8-10 years). Top Priority projects are the top ranked of the short-term projects and were determined by the facility segment's ability to serve key destinations, address safety concerns, and expand connectivity. These segments will provide immediate benefits, but the Town should also evaluate



cost and feasibility of each project when determining order of construction. The methodology of prioritization, scoring, and the entire phasing table are described in detail in Appendix B. The Top 20 priorities segments are listed in the table below and can be seen in Map 7.1.

"Top Twenty Sidewalk Projects"

Road Segment	Starting	Ending
North Main Street	North Avenue	Harris Road
Durham Road	Capital Blvd. (US-1)	North Wingate Street
North White Street	Roosevelt Avenue	Flaherty Park
North Avenue	Start	End
Roosevelt Avenue	Front Street	Wait Avenue
Rogers Road	Forestville Road	South Main Street
South Main Street	South Avenue	Holding Avenue
E Cedar Avenue	North Main Street	Railroad Tracks
North Franklin Street	NC 98 Bypass	Wait Avenue
Front Street	Start	End
Heritage Lake Road	Rogers Road	Heritage Heights
South Avenue	Start	End
South Wingate Street	Holding Avenue	Stadium Drive
Spring Street	North White Street	Taylor Street
Wait Avenue	Allen Road	Roosevelt Avenue
Rogers Road	ETJ	Forestville Road
Stadium Drive	North Wingate Street	Capital Blvd.
North Wingate Street	Stadium Drive	Chestnut Street
Rock Spring Road	Stadium Drive	Juniper Avenue
South Main Street	Holding Avenue	Rogers Road



Figure 7(e):
Downtown Wake Forest

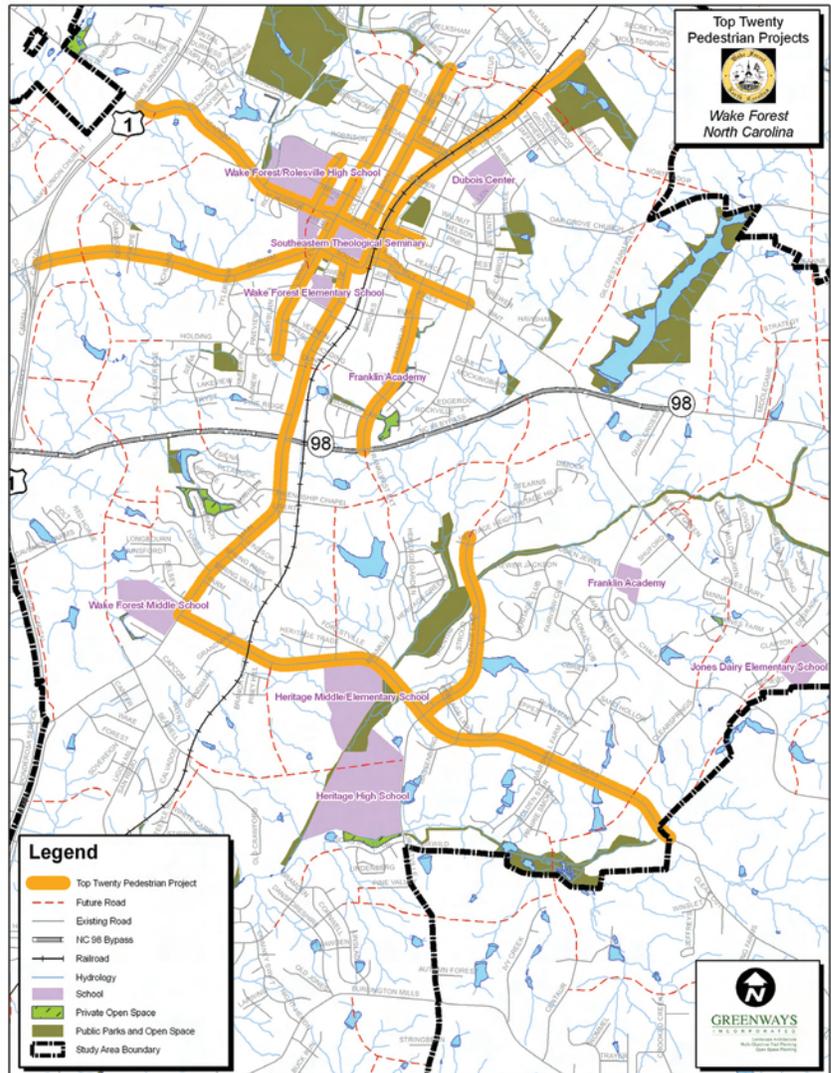


IMPLEMENTATION

“Top Twenty” Pedestrian Projects



Figure 7(f):
North Main Street



Map 7.1



7.5.2 Greenway Corridors

Greenway corridors were prioritized based on their connections to multiple land uses and destinations, available easements, and existing greenway trail segments. Further evaluation of obstacles and environmental constraints should be conducted to assess feasibility, while weighing cost and benefits of each greenway corridor. The following greenway corridors are listed in order of priority:

- 1) Wake Forest Bypass Greenway (Along NC 98 Bypass)
- 2) Smith Creek Greenway
- 3) Richland Creek Greenway
- 4) Sanford Creek Greenway
- 5) Cimarron Greenway
- 6) Tom's Creek Greenway (Conservation Corridor)

7.6 Staffing

In order to implement, construct, promote, and maintain a pedestrian network, Town departments and staff should be given the responsibilities shown in the table below:

Implementation: Planning Department

Facility Development and Maintenance: Public Works Department

Community Programs: Planning Department, Parks and Recreation Department

Enforcement: Town Police Department

Public Information Distribution:

Adapted from other successful pedestrian communities, recommended staffing for each department is shown below:

Planning Department: The Town Planning Director or another high-ranking planning official should take on the responsibilities of "Pedestrian Coordinator." These duties would include the overall commitment to carrying out recommendations from this Plan, applying for funding, and



Figure 7(g):
Pedestrian crossing at
Rogers Road and South
Main Street



IMPLEMENTATION

overseeing the entire pedestrian program. Overseeing the program requires an evaluation and monitoring process to measure successes and failures of the Plan's implementation. This includes updating and improving portions of the Plan and pedestrian facility development methods over time if necessary.

Members of the Planning staff should also conduct tasks such as updating and publishing new local pedestrian maps, creating and updating GIS layers of all pedestrian facilities, proposing future alternative routes, and working with adjacent communities and regional organizations to coordinate pedestrian linkages.

Public Works Department: The Public Works Director should oversee the construction and maintenance of all pedestrian facilities. The Public Works section responsible for Streets should also be responsible for future sidewalk construction and maintenance. One member of the Public Works should handle pedestrian facility development, construction, maintenance among his/her other responsibilities.

Parks and Recreation Department: The Parks and Recreation Director and/or staff should play a role in education and encouragement programs. Recreation centers and other trail, park, and school areas can be the location of events such as educational courses. This department should also play a role in managing off-road pedestrian facilities.

Police Department: All local police officers should be educated about North Carolina bicycle and pedestrian laws and interactions between bicyclists, pedestrians, and motorists. *The Guide to North Carolina Bicycle and Pedestrian Laws*, written by the NCDOT Division of Bicycle and Pedestrian Transportation, should be distributed to local law enforcement officers. Police officers should become more proactive in educating the public and enforcing laws when they are broken.

Public Information Office: Town of Wake Forest employees responsible for providing public information and promoting



the implementation of this Plan should ensure that updated information is available on the web, at the Wake Forest Chamber of Commerce, Town of Wake Forest public facilities, and also promoted through local media. To promote the pedestrian network and build momentum, officials should present pedestrian improvements and achievements by means of local newsletters, newspapers, the Town website, and local cable television. Ribbon cutting ceremonies could be held for accomplishments such as greenways. Programs and events are another way to involve the public.

Volunteers: Services from volunteers, student labor, and seniors, or donations of material and equipment may be provided in-kind to offset construction and maintenance costs. Formalized maintenance agreements, such as adopt-a-trail or adopt-a-highway can be used to provide a regulated service agreement with volunteers. Other efforts and projects can be coordinated as needed with senior class projects, scout projects, interested organizations or clubs or a neighborhood's community service to provide for the basic needs of the pedestrian network. Advantages of utilizing volunteers include reduced or donated planning and construction costs, community pride and connection to the Town's pedestrian network, and increased awareness about pedestrian safety issues.

7.7 Methods for Developing Facilities

This section describes types of transportation facility construction and maintenance projects that can be used to create new pedestrian facilities. Note that roadway construction and reconstruction projects offer excellent opportunities to incorporate facility improvements for pedestrians. It is much more cost effective to construct pedestrian facilities while roadway maintenance or construction is underway than to initiate the improvement later as a "retrofit."

To take advantage of upcoming opportunities and to incorporate pedestrian facilities into routine transportation and utility projects, the "Pedestrian Coordinator" should



IMPLEMENTATION

keep track of the Town's projects (through the Public Works Department), any road maintenance or construction projects, and any other local and state transportation improvements. The "Pedestrian Coordinator" should be aware of the different procedures for state and local roads. More detail on facility design and treatment can be found in Chapter 5.

Finally, it is imperative throughout the development of facilities to have coordination with NCDOT. Short term projects can be discussed with the NCDOT Division 5 office. Scoping and requesting TIP (Transportation Improvement Program) projects should continue by coordinating with the CAMPO (Capital Area Metropolitan Planning Organization) and contacting the PDEA (Project Development and Environmental Analysis) Branch of the NCDOT. More information about the TIP can be found in Appendix C. Finally, long-term needs can be discussed with the NCDOT Transportation Planning Branch.

7.7.1 Roadway Construction and Reconstruction

Pedestrians should be accommodated any time a new road is constructed or an existing road is reconstructed. All new roads with moderate to heavy motor vehicle traffic should have sidewalks and safe intersection attributes. The Town of Wake Forest should take advantage of any upcoming construction projects, including roads being built from the Thoroughfare Plan. Also, case law surrounding the ADA has found that roadway resurfacing constitutes an alteration, which requires the addition of curb ramps at intersections where they do not exist.

7.7.2 Residential and Commercial Development

As detailed in Chapter 6, the construction of sidewalks and safe crosswalks should be required during development. Pedestrian facilities that are built along with site construction are more cost-effective than retrofit projects. This ensures the future growth of the pedestrian network and the development of safe communities.



7.7.3 Retrofit Roadways with New Pedestrian Facilities

There may be critical locations in the proposed Pedestrian Network that have pedestrian safety issues or are essential links to destinations. In these locations, it may be justified to add new pedestrian facilities before a roadway is scheduled to be reconstructed or utility work is scheduled.

In some places, such as along S. Main St., it may be relatively easy to add sidewalk segments to fill gaps, but other segments may require removing trees, relocating landscaping or fences, and regrading ditches or cut and fill sections.

Another opportunity to improve the pedestrian environment are under-used travel lanes. In the future, the Town should identify and consider streets with under-used travel lanes for potential traffic calming projects including restriping, lane reduction, and sidewalk widening.

7.7.4 Bridge Construction or Replacement

Provisions should always be made to include a walking facility as a part of vehicular bridges, underpasses, or tunnels, especially if the facility is part of the Pedestrian Network. All new or replacement bridges should accommodate pedestrians with wide sidewalks on both sides of the bridge.

7.7.5 Signage and Wayfinding Projects

Signage along specific routes or throughout an entire community can be updated to make it easier for people to find destinations. Pedestrian route and greenway signs are one example of these wayfinding signs, and they can be installed along routes independently of other signage projects or as a part of a more comprehensive wayfinding improvement project.

7.7.6 Greenway Acquisition

Because the majority of greenways exist in an off-road environment, the acquisition of land or easements becomes a critical part of the implementation process. The recommended alignment of greenways in this Plan follows publicly-owned land where possible, but in many cases, an acquisition



IMPLEMENTATION

strategy will have to be implemented in areas of privately-owned land.

There are several resources and strategies that can aid in the implementation and acquisition process. First, greenways should be considered as “infrastructure” and an important facility in the Town of Wake Forest, providing ecological and recreational services. They can and should be complementary elements of the overall drainage and floodplain infrastructure and be a part of the City’s water quality and flood management programs.

Second, the Town of Wake Forest should pursue partnerships with land trust and land managers to make more effective use of its land acquisition funds and strategies. Enlisting the support of a local land trust could help broker land protection arrangements between private landowners and the Town of Wake Forest. The Town should also take advantage of its existing, Town-owned utility easements where acquisition is not necessary.

Finally, providing educational material to local landowners and developers about the benefits of greenways and land/easement donations is also an excellent means to stimulate greenway acquisition.

The following list of tools describe various methods of acquisition that can be used by landowners, land conservation organizations, and the City of Graham to acquire greenway lands.

Land Management

Management is a method of conserving the resources of a specific greenway parcel by an established set of policies called management plans for city-owned greenway land or through easements with private property owners. Property owners who grant easements retain all rights to the property except those which have been described in the terms of the easement. The property owner is responsible for all taxes associated with the property, less the value of the easement granted. Easements are generally restricted to certain portions



of the property, although in certain cases an easement can be applied to an entire parcel of land. Easements are transferable through title transactions, thus the easement remains in effect perpetually.

Management Plans: The purpose of a management plan is to establish legally binding contracts which define the specific use, treatment, and protection for city-owned greenway lands. Management plans should identify valuable resources; determine compatible uses for the parcel; determine administrative needs of the parcel, such as maintenance, security, and funding requirements; and recommend short-term and long-term action plans for the treatment and protection of greenway lands.

Conservation Easement: This type of easement generally establishes permanent limits on the use and development of land to protect the natural resources of that land. When public access to the easement is desired, a clause defining the conditions of public access can be added to the terms of the easement. Dedicated conservation easements can qualify for both federal income tax deductions and state tax credits. Tax deductions are allowed by the Federal government for donations of certain conservation easements. The donation may reduce the donor's taxable income.

Preservation Easement: This type of easement is intended to protect the historical integrity of a structure or important elements in the landscape by sound management practices. When public access to the easement is desired, a clause defining the conditions of public access can be added to the terms of the easement. Preservation easements may qualify for the same federal income tax deductions and state tax credits as conservation easements.

Public Access Easements: This type of easement grants public access to a specific parcel of property when a conservation or preservation easement is not necessary. The conditions of use are defined in the terms of the public access easement. Often times, these easements already exist, are owned by the City,



IMPLEMENTATION

and are linear, following utility lines. A City utility easement or recreation easement are two options to be considered in Graham. If an easement has already been cleared and set aside for utilities such as sewer or for recreation, a greenway can be an easy addition.

Government Regulation

Regulation is defined as the government's ability to control the use and development of land through legislative powers. The following types of development ordinances are regulatory tools that can meet the challenges of projected suburban growth and development as well as conserve and protect greenway resources.

Dedication/Density Transfers: Also known as incentive zoning, this mechanism allows greenways to be dedicated for density transfers on development of a property. The potential for improving or subdividing part or all of a parcel of property, as permitted under Wake Forest's or Wake County's land use development laws, can be expressed in dwelling unit equivalents or other measures of development density or intensity. Known as density transfers, these dwelling unit equivalents may be relocated to other portions of the same parcel or to contiguous land that is part of a common development plan. Dedicated density transfers can also be conveyed to subsequent holders if properly noted as transfer deeds.

Negotiated Dedications: This type of mechanism allows the City to negotiate with landowners for certain parcels of land that are deemed beneficial to the protection and preservation of specific stream corridors. This type of mechanism can also be exercised through dedication of greenway lands when a parcel is subdivided. Such dedications would be proportionate to the relationship between the impact of the subdivision on community services and the percentage of land required for dedication-as defined by the US Supreme Court in *Dolan v Tigid*.



Fee-in-Lieu: To complement negotiated dedications, a fee-in-lieu program may be necessary to serve as a funding source for other land acquisition pursuits. Based on the density of development, this program allows a developer the alternative of paying money for the development/protection of greenways in lieu of dedicating greenway lands. This money is then used to implement greenway management programs or acquire additional greenway land.

Reservation of Land: This type of mechanism does not involve any transfer of property rights but simply constitutes an obligation to keep property free from development for a stated period of time. Reservations are normally subject to a specified period of time, such as 6 or 12 months. At the end of this period, if an agreement has not already been reached to transfer certain property rights, the reservation expires.

Buffer / Transition Zones: This mechanism recognizes the problem of reconciling different, potentially incompatible land uses by preserving greenways that function as buffers or transition zones. Care must be taken to ensure that the use of this mechanism is reasonable and will not destroy the value of a property.

Overlay Zones: An overlay zone and its regulations are established in addition to the zoning classification and regulations already in place.

Subdivision Exactions: An exaction is a condition of development approval that requires development to provide or contribute to the financing of public facilities at their own expense. For example, a developer may be required to build a greenway on-site as a condition of developing a certain number of units because the development will create the need for new parks or will harm existing parks due to overuse. This mechanism can be used to protect or preserve greenway lands, which are then donated to either the City or County. Consideration should be given to include greenway development in future extraction programs.



IMPLEMENTATION

Acquisition

Acquisition requires land to be donated or purchased by a government body, public agency, greenway manager, or qualified conservation organization. It should be noted that in land acquisition for which a greenway may be built with federal funds, the landowner must be offered payment of fair market value and documentation of the offer must be recorded.

Donation or Tax Incentives: In this type of acquisition, a government body, public agency, or qualified conservation organization agrees to receive the full title or a conservation easement to a parcel of land at no cost or at a “bargain sale” rate. The donor is then eligible to receive a federal tax deduction of up to 30 to 50 percent of their adjusted gross income. Additionally, North Carolina offers a tax credit of up to 25 percent of the property’s fair market value (up to \$5000). Any portion of the fair market value not used for tax credits may be deducted as a charitable contribution. Also, property owners may be able to avoid any inheritance taxes, capital gains taxes, and recurring property taxes.

Fee Simple Purchase: This is a common method of acquisition where a local government agency or private greenway manager purchases property outright, Fee simple ownership conveys full title to the land and the entire “bundle” of property rights including the right to possess land, to exclude others, to use land, and to alienate or sell land.

Easement Purchase: This type of acquisition is the fee simple purchase of an easement. Full title to the land is not purchased, only those rights granted in the easement agreement. Therefore the easement purchase price is less than the full title value.

Purchase / Lease Back: A local government agency or private greenway organization can purchase a piece of land and then lease it back to the seller for a specified period of time. This lease may contain restrictions regarding the development and use of the property.



Bargain Sale: A property owner can sell property at a price less than the appraised fair market value of the land. Sometimes the seller can derive the same benefits as if the property were donated. Bargain Sale is attractive to sellers when the seller wants cash for the property, the seller paid a low cash price and thus is not liable for high capital gains tax, and/or the seller has a fairly high current income and could benefit from the donation of the property as an income tax deduction.

Option / First Right of Refusal: A local government agency or private organization establishes an agreement with a public agency or private property owner to provide the right of first refusal on a parcel of land that is scheduled to be sold. This form of agreement can be used in conjunction with other techniques, such as an easement to protect the land in the short-term. An option would provide the agency with sufficient time to obtain capital to purchase the property or successfully negotiate some other means of conserving the greenway resource.

Purchase of Development Rights: A voluntary purchase of development rights involves purchasing the development rights from a private property owner at a fair market value. The landowner retains all ownership rights under current use, but exchanges the rights to develop the property for cash payment.

Condemnation: The practice of condemning private land for use as a greenway is viewed as a last resort policy. Using condemnation to acquire property or property rights can be avoided if private and public support for the greenway program is present. Condemnation is seldom used for the purpose of dealing with an unwilling property owner. In most cases, condemnation has been exercised when there has been an absentee property ownership, when the title of the property is not clear, or when it becomes apparent that obtaining the consent for purchase would be difficult because there are numerous heirs located in other parts of the United States or different countries.



IMPLEMENTATION

Eminent Domain: The right of exercising eminent domain should be done so with caution by the community and only if the following conditions exist: 1) the property is valued by the community as an environmentally sensitive parcel of land, significant natural resource, or critical parcel of land, and as such has been defined by the community as irreplaceable property; 2) written scientific justification for the community's claim about the property's value has been prepared and offered to the property owner; 3) all efforts to negotiate with the property owner for the management, regulation, and acquisition of the property have been exhausted and that the property owner has been given reasonable and fair offers of compensation and has rejected all offers; and 4) due to the ownership of the property, the timeframe for negotiating the acquisition of the property will be unreasonable, and in the interest of pursuing a cost effective method for acquiring the property, the community has deemed it necessary to exercise eminent domain.

References

Guide for the Planning, Design, and Operation of Pedestrian Facilities. American Association of State Highway and Transportation Officials (AASHTO). July 2004.

Pedestrian Master Plan. The City of Oakland. Part of the Land Use and Transportation Element of the City of Oakland's General Plan. November 12, 2002. http://www.oaklandnet.com/government/Pedestrian/Ch_4.pdf

