Alan M. Voorhees Transportation Center

Constructing, Maintaining and Financing Sidewalks in New Jersey

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prepared for:
New Jersey Department of Transportation

funded by:
Federal Highway Administration

August 2006

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

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Executive Summary

This research has been undertaken to explore how sidewalks in New Jersey are constructed, maintained, reconstructed and financed. Sidewalks are a complicated issue due to multiple jurisdictions (local, county, and state), ambiguous responsibility for construction, reconstruction and maintenance, and contested liability. The research methodology included interviews with New Jersey planners and engineers at the state and local levels, a review of state and national guidelines, consultation with national professionals regarding practices outside New Jersey, and a legal analysis of sidewalk-related caselaw. Sidewalks provide many benefits for pedestrians, including a stable, firm, all-weather surface, physical separation from motor vehicles, and a public space for social interaction. Although sidewalks have been a part of the infrastructure of our cities and towns since colonial times, their installation has declined with suburbanization as homeowners sought a rural feel and commercial uses moved to auto-oriented highway strip development where high traffic speeds and large parking lots made walking inconvenient. Lack of consistent requirements and funding for sidewalk construction contributed to their decline in the latter half of the twentieth century.

There is growing recognition of the need to support pedestrian accessibility at the federal, state, and local levels, as evidenced by the increased support for pedestrian facilities in federal transportation funding authorization acts beginning with ISTEA in 1991. The Americans with Disabilities Act (ADA) of 1990 has also contributed significantly to the regulation and design of pedestrian facilities. FHWA and AASHTO have published useful guidebooks that address sidewalk design.

Most sidewalks in New Jersey are constructed by landowners as part of the development process. They may also be built by a state, county, or local agency in connection with of roadway construction or reconstruction. The Residential Site Improvement Standards (RSIS) set forth sidewalk requirements for residential development in the state. No comparable set of standards exists for non-residential developments. Counties and the State are authorized, but not required, to construct sidewalks during road construction. Sidewalks may not be constructed during development or road construction if the developer seeks an exception from the RSIS or local site plan requirements, or if the State or county has not identified a need in the project scoping process.

Concrete is the preferred material for sidewalk construction because of its long service life. Problems with damage from tree roots can be avoided through proper species selection and a sufficient tree lawn setback. Proper techniques must be used during sidewalk reconstruction to avoid damaging tree roots. Routine maintenance and snow and ice removal is typically the responsibility of the abutting property owner, both in New Jersey and nationally.

For sidewalks to be effectively maintained and properly repaired, responsibility for sidewalk management activities needs to be defined. Conversely, most of the problems involving sidewalk management result from ambiguity over responsibility or the lack of a responsible party.

The cost of constructing and reconstructing sidewalks is typically born by the landowner when it is required as part of a development, and by the State, county or local agency when constructed as part of road construction or reconstruction. Municipalities may assess all, a portion of, or none of the costs of constructing sidewalks on the abutting property owners. NJDOT Local Aid funding has also been used for municipal sidewalk-only projects.

Public entities are generally immune from liability from injuries suffered on sidewalks through the principle of sovereign immunity as codified in the Torts Claim Act (NJSA 59:1-1 et.seq.) Historically, abutting property owners were also considered to be immune from liability through common law, which held that sidewalks in the public right-of-way were the responsibility of the public entity with jurisdiction over the roadway. But the common law understanding of liability has been tested in the courts, and both commercial and charitable property owners may now be held liable for poorly maintained sidewalks. Residential property owners, however, remain immune from liability for damages. In addition, because street trees located in the public right-of-way are not the responsibility of the abutting property owner, the owner is not liable for tree-related damage.. However, if the problematic tree is located on private property the owner may be held liable. Shade tree commissions are immune from liability for damaged sidewalks caused by trees located in the public right-of-way, Regardless of liability, the ownership status and responsibility for maintenance of sidewalks in the public right-of-way remains ambiguous.

Recommendations

Sidewalk construction and maintenance responsibility

- Statutes should clarify that improvements within the public right-of-way, including sidewalks, are the responsibility of the agency having jurisdiction over the roadway.
- NJDOT should be required to adopt regulations defining when sidewalks must be included as part of state roadway construction or reconstruction
- The State Highway Access Management Code should be revised to specify when sidewalks must be required on a development site as a condition of access permit approval.
- Counties and the NJDOT should be allowed to enter into jurisdictional agreements with municipalities that assign a municipality with management responsibility over sidewalks and provide financial assistance.

Sidewalk snow and ice policy

- Public entities having authority over roadways should be required by statute to establish programs to assure that sidewalks remain passable, especially following snow storms, in order to remove this burden from private property owners.
- The agency having jurisdiction over a roadway should be required by statute to clear snow from sidewalks on bridges, through interchanges and along open space properties.
- Jurisdictions having authority over roadways should also be required to keep intersections and crosswalks passable during winter storm events.
- Public entities responsible for plowing a roadway should be required by statute to assure that sufficient room exists to store the snow off of the sidewalk.

Street trees

- The State, counties and municipalities should be required to retain the services of qualified urban foresters or arborists (NJ Certified Tree Experts) to supervise new plantings and to advise on any construction or maintenance activities that may affect existing street trees.
- Supervising tree service providers should be required to be licensed by the State of New Jersey, as proposed in pending NJ Senate Bill 1199.
- The Legislature should establish statutory policies encouraging the planting of street trees and vegetation along roadways in the state, and provide funding support.
- The entity having jurisdiction over the roadway should be responsible for the cost of repairing sidewalks damaged by street trees, or that function delegated to a lower level of government as part of a jurisdictional agreement.
- Operations of Shade Tree Commissions should be fully subject to the Tort Claims Act.

Liability

- The Legislature should return liability for sidewalks to the public entity maintaining the street.
- Similarly, responsibility for repairing damaged or deteriorated sidewalks should be placed on the public entity.
- Abutting property owners should only be responsible for negligent actions on their part, not deterioration from normal wear.
- The Tort Claims Act should be amended to require a public entity to document that it operates a sidewalk inspection and repair program.

1.0 Introduction and Background

1.1 Purpose of Research

This research has been undertaken to determine how sidewalks in New Jersey are constructed, maintained, reconstructed and financed.

The report has been prepared under the direction of the New Jersey Bicycle and Pedestrian Resource Project of the Voorhees Transportation Center (VTC) at Rutgers, The State University of New Jersey's Edward J. Bloustein School of Planning and Public Policy.

The Bicycle and Pedestrian Resource Project is a partnership between the New Jersey Department of Transportation (NJDOT) and VTC. The program assists elected officials, decision makers and transportation professionals to clearly understand the needs of bicyclists and pedestrians and how those needs can be addressed. In addition to disseminating policy and technical information about walking and bicycling, the Resource Program undertakes research studies regarding policy or technical issues of concern in New Jersey. Funding for the program has been provided by the Federal Highway Administration (FHWA) through NJDOT's Office of Bicycle and Pedestrian Programs.

1.2 Why Build Sidewalks?

Sidewalks in urban and suburban areas provide a wide variety of benefits for pedestrians, including the following:

- Stable, firm, durable and slip-resistant surface for walking
- Fast draining, all-weather walking surface
- Smooth surface that can be readily cleared of snow
- Public, outdoor area for social interaction
- Physical separation from motor vehicles
- Play area for children

Sidewalks are usually constructed as part of an urban street cross-section that also includes curbs.

Sidewalks may encourage walking activity. In communities with sidewalks, it is convenient to choose walking as a transportation mode or a recreational activity. Numerous public health authorities including the Centers for Disease Control (CDC), the American Medical Association (AMA) and the American Heart Association strongly encourage regular moderate exercise such as walking.[1]

For children, sidewalks provide an essential environment for safe, independent mobility. In addition, sidewalks can provide a safe, communal play area for a variety of games and

[1] In July 1996 the US Surgeon General issued the Report on Physical Activity and Health, which found that regular moderate physical activity can substantially reduce the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure. For a more complete discussion of the health benefits of physical activity, including walking, see http://www.cdc.gov/healthyplaces/healthtopics/physactivity.htm which provides links to further reports and analyses.

activities including drawing with chalk, playing hopscotch, and learning to bicycle or roller skate, amongst others.

Motor vehicles and pedestrians can coexist on local residential streets on which both motor vehicle speeds and traffic volumes are low and on-street parking is either prohibited or limited. However, even on these streets the provision of sidewalks can be beneficial in encouraging walking, facilitating social interaction and creating play areas.

On collector and arterial streets in suburban and urban areas, the physical separation provided by sidewalks becomes much more important. Even at low speeds the power, bulk and noise of motor vehicles make them threatening to walkers. At higher speeds, motor vehicles become lethal. Although pedestrians were involved in only 3% of all reported motor vehicles crashes in New Jersey in 2003, they constituted approximately 20% of the fatalities resulting from crashes.[2]

1.3 A Summary of American Sidewalk History

Sidewalks have been constructed since early in the development of colonial towns. By 1750 in Philadelphia, "sidewalks, chiefly made of brick, were found throughout the town, and in most cases were protected from the street by wooden posts planted at intervals of about twenty feet."[3]

A lithograph showing what the original Federal Hall in Manhattan looked like in 1797 depicts an urban street with sidewalks on both sides. As depicted in this lithograph, cities and towns frequently provided stepping stones at intersections to help pedestrians cross the dirt or cobbled roads on smooth and clean "cross walks".

Federal Hall, Manhattan, 1797 *(Library of Congress Prints and Photographic Division)*

One of the reasons that early American communities were incorporated as cities, boroughs or villages was that a municipality could be authorized to grade and improve the streets in the town and construct sidewalks. For example, the village of Binghamton, NY, following its incorporation in 1834, "proceeded with dexterity to level and otherwise improve the streets, to flag the sidewalks and to remove nuisances." [4]

By the beginning of the early 19th century cities and borough in New Jersey were also concerned about the quality of the pedestrian environment and were prepared to invest in

[2] NJDOT reports that there were 283,627 reported motor vehicle crashes in 2003, of which 9,380 or 3.3% involved pedestrians. The FHWA Office of Highway Statistics reports that 747 persons were killed in motor vehicles crashes in New Jersey in 2003, of whom 147 or 19.7% were pedestrians.
[3] Nicholas B Wainwright, A Philadelphia Story, The Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, 1952, p. 7
[4] J B Wilkinson, The Annals of Binghamton, Broome County Historical Society, 1967, p. 184.

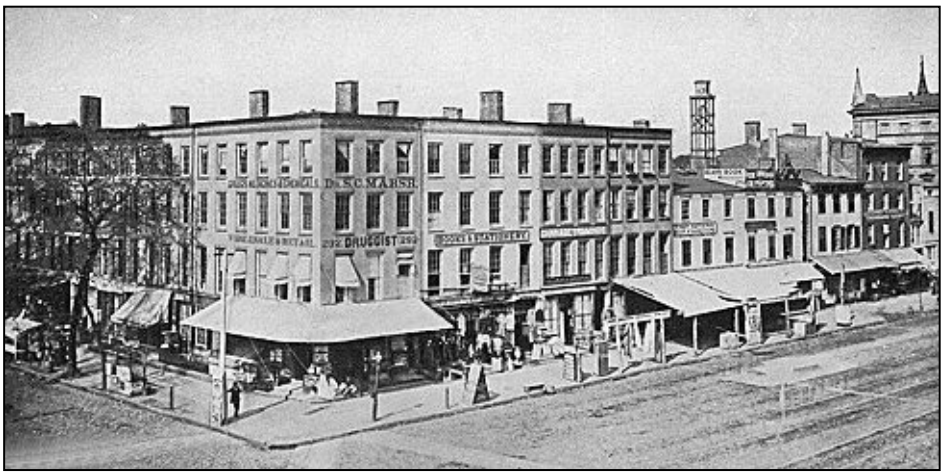
sidewalks. When Theodore Burr designed the first bridge to cross the Delaware River in Trenton he included in the design two 11' carriage ways and 4.5 foot wide sidewalks on either side. That bridge opened to carriage and pedestrian traffic in 1806.[5]

In 1810 Elizabeth Town passed an ordinance to appoint a street commissioner and to regulate the laying out, paving and graveling of sidewalks and footways and to provide for the repair of sidewalks and footways. [6] In Newark, Broad and Market Streets had flagstone sidewalks as early as 1820, although the streets were not paved until 1853.[7]

In 1833 the City of Boston created a position of Superintendent of Streets, and passed an ordinance requiring property owners or tenants of property to clear snow from sidewalks within 6 hours following the end of a snowstorm.[8]

As these various examples demonstrate, many New Jersey and American cities considered sidewalks to be essential features by the early 19th century, nearly a century before the advent of automobiles.

Photographs of New Jersey's cities and towns taken in the 1890s usually show streets with curbs and sidewalks, and the sidewalks frequently have a width of ten feet or greater. This is not that surprising since walking remained the principal means of personal transportation in New Jersey.



Corner of Broad and Market Streets, Newark NJ, 1890's
(www.oldnewark.com)

Outside of incorporated cities, towns and boroughs, it was less likely that sidewalks would be constructed. Photographs taken in rural hamlets at the end of the 19th century in New Jersey often show streets that lacked sidewalks or only had sidewalks laid down in front of specific buildings such as taverns or inns.

[5] Trenton Historical Society, A History of Trenton: 1679 – 1929, p. 249.
[6] W. Woodford Clayton, editor, History of Union and Middlesex Counties, Everts & Peck, 1880, p 181.
[7] Frank John Urquhart, et al, A History of the City of Newark, Lewis Historical Publishing Inc, 1913, p. 569.
[8] Charter and Ordinances of the City of Boston, 1834, Chapter 41-39, Section 17. As reported at bostonhistory.typepad.com

During the first part of the twentieth century most new developments laid out within incorporated cities and boroughs included sidewalks. In these developments, it was still assumed that most people would walk to jobs and stores, even as the automobile became increasingly important as a means of personal transportation.

1.4 The Decline of Sidewalk Construction

1.4.1. Lack of sidewalks in residential developments

In rural areas, streets evolved without sidewalks even during the 19th century. In these areas the cost of connecting isolated hamlets together with sidewalks would have been prohibitive and rural residents were accustomed to walking along roadways to visit friends, attend school or go to church or the market.

During the Great Depression and extending through the post-World War II period, an increasing number of residential developments were laid out without sidewalks, especially in unincorporated townships. For example, most streets constructed in Princeton Township following World War II lacked sidewalks.

While initially the lack of sidewalks may have reflected a cost saving measure on the part of developers, during the 1960s and 1970s an increasing number of developments were laid out without sidewalks for the purpose of providing a more natural or bucolic atmosphere. As discussed above, rural villages and hamlets traditionally lacked sidewalks; home buyers were attracted to the "rural look" of suburban streets that also lacked curbs and sidewalks, and residents objecting to the construction of sidewalks on existing subdivision streets today frequently cite the impact sidewalks would have on the "rural" look of their residential streets.

Another reason that streets have evolved without sidewalks was the practice of subdividing residential building lots along existing farm roads and rural highways. These building lots allowed individuals or builders to construct homes without having to lay out new streets. The practice also allowed the lots to be laid out and homes constructed in rural townships free of the oversight that occurred in cities where engineers, building officials and development ordinances regulated the way development occurred. By saving on infrastructure costs, homes could be sold for less money. Prior to the car this type of isolated development along rural roadways could only occur in areas that were accessible by railroads and interurban trolleys. The advent of the automobile and the development of highway networks provided accessibility to isolated lots everywhere.

1.4.2. Lack of sidewalks in commercial developments

Traditionally shopkeepers and employers sought central locations that were accessible to residents by walking. Because of the importance of walking for personal transportation, as discussed above, sidewalks were a critical element of urban infrastructure in commercial areas from an early date.

With the advent of the automobile, more and more retail and service providers began to look for locations that were readily accessible by automobile. If a store owner or business person was primarily seeking to serve automobile owners, they no longer saw as much need to serve pedestrians. Increasingly through the early decades of the 20th century one could find businesses without sidewalks along highways in rural areas and the outskirts of cities. State and federal funding for "good roads" provided by fuel taxes and other

vehicle user taxes made most locations in New Jersey readily accessible by automobile, reducing the traditional commercial benefit enjoyed by town and city centers.

Following World War II there was an explosion of development along highway corridors. First free standing stores, then shopping centers, then office and warehouse complexes. Drive-in businesses had evolved during the years before World War II, but exploded during the 1960s and continued to proliferate thereafter. The earliest drive-ins were movies and restaurants. These were followed by drive-thru banks, drugstores and film kiosks.

But whether the business served persons who did not want to get out of their cars, or only catered to auto drivers by providing convenient parking lots, commercial developments of all stripes sought to cater to drivers of automobiles to the significant detriment of pedestrians. This movement to automobile accessible locations was supported by the increasing funding for highway construction provided by the state and federal governments using road user taxes.

Since parking lots made stores difficult to reach, and since highways were not enjoyable places to walk, fewer people chose to walk. As walking declined, public leaders increasingly ceased to require the construction of sidewalks that might have made walking more pleasant.

Eventually public leaders became concerned that providing sidewalks might encourage people to walk in environments that were considered unsafe. That meant that even fewer sidewalks were constructed, and a self-fulfilling prophesy evolved. Since sidewalks were not being constructed, and since commercial areas were being constructed with no provisions for pedestrians, walking did become both more dangerous and more difficult; as a result fewer and fewer people chose to walk. [9]

1.4.3. Transportation funding and policy

From early in the 20th century, the State of New Jersey has been providing financial and legal assistance for the construction of highways to serve motor vehicles. Initially this assistance consisted of creating legislation that authorized first municipalities and then counties to fund roadway networks that could cater to automobile travel.

In 1928 the State Highway Act was enacted creating a statewide system of highways in New Jersey and allowing the state to more efficiently use both federal funds being provided to support highway construction and new state revenues produced by auto user fees, primarily a gas tax. Counties continued to have a major role in funding roadway improvements on secondary roads, especially in rural areas and suburban areas surrounding cities, in effect subsidizing the cost of developing land in rural areas.

In contrast, public transportation and sidewalk construction was still based upon systems that evolved prior to the invention of the automobile. The responsibility for constructing and maintaining sidewalks continued to rest primarily with abutting property owners, a

[9] Residents of neighborhoods in East Windsor, Hamilton and Lawrence Townships in Mercer County, NJ have in each township discouraged local street or pedestrian connections to proposed abutting shopping centers. Numerous examples can be found throughout New Jersey where shopping centers and office complexes have been fenced off from abutting residential neighborhoods, making pedestrians trips lengthy and sometimes impossible.

hold over from English common law which also required abutting property owners to maintain the streets in front of their properties.

1.4.4. Summary

The advent of the automobile meant that sidewalks were less likely to be constructed in both residential neighborhoods and along commercially developed highways. Sidewalks were not being constructed because:

- State, county and municipal agencies did not require sidewalk construction
- Developers and tenants wanted to save money
- With the car, development could spread in an incremental fashion along rural roads at the edge of cities, making the construction of an integrated sidewalk network more difficult to implement
- In an automobile-oriented environment many developers ceased to find a need for sidewalks, which after all were constructed to serve people who chose to travel on foot
- As more and more areas lacked sidewalks, decision makers began to believe that it was unnecessary to require sidewalks when development occurred
- Many homebuyers wanted to live in a "rural" setting and sought roads without curbs and sidewalks

1.5 Sidewalks Today

Changing patterns of land development and transportation have changed the public perception of the need for pedestrian facilities. In addition, the responsibility for constructing and maintaining sidewalks has remained separate from the responsibility for constructing and maintaining roads. This combination of factors has led to a fragmented sidewalk network in New Jersey.

Sidewalks continue to be constructed in many residential developments. As will be discussed later, the Residential Site Improvement Standards (RSIS) now require sidewalk construction in most residential developments in New Jersey. However, a large inventory of existing residential development lacks sidewalks, and property owners frequently resist efforts to construct sidewalks in these neighborhoods.

Commercial developments continue to locate on arterial highways and collector roads where sidewalks have seldom been constructed. There are no statewide site improvement standards for commercial development comparable to the RSIS, so decisions regarding sidewalks are left to municipal review. Since major gaps in sidewalk networks exist in commercial areas, local officials responsible for regulating development frequently find that the construction of disconnected sidewalk links on individual developments is unnecessary or undesirable.

As will be discussed later in this report, the best opportunity for constructing sidewalks occurs when a land parcel is developed or redeveloped. The lack of comprehensive standards to determine where sidewalks are required, along with an incremental pattern of development, makes the creation of a complete sidewalk network much more difficult. By the time the need for sidewalks becomes apparent, the lack of sidewalks on existing developed road frontage may prevent an easy retrofit of highway corridors and residential neighborhoods with curbs and sidewalks.

As a result of the complicated and multi-layered responsibility for sidewalk siting, construction and maintenance, varied municipal ordinances, and varied perceptions among decision makers about the need for sidewalks, the current sidewalk network in New Jersey is fragmentary and incomplete. This network has less utility than a complete network because potential pedestrians may forgo walking trips if they cannot rely on the presence of a safe facility all the way to their destinations.

2.0 National Experience and Best Practices

Since the 1960s there has been a growing recognition of the need to support all modes of transportation, not just aviation and highways. Initially the need for a broader transportation policy focused primarily on public transportation. However, from the 1970s on, and especially since 1991, federal legislation has recognized that the nation's transportation systems should also be constructed and operated to serve pedestrian needs. As a result, the federal government, most states, and many cities and counties have revised their sidewalk policies and practices and have provided for funding and incentives for pedestrian facilities.

In particular, the Americans with Disabilities Act (and earlier federal acts designed to provide persons with disabilities greater access to community resources) and federal transportation funding authorization acts (ISTEA, TEA-21, SAFETEA-LU) have required local and state governments to address pedestrian circulation needs, have provided funding for that purpose, and have required that federal funds provided for transportation purposes in part be used to serve the needs of walkers and persons with disabilities.

This chapter will highlight the provisions of the two federal statutes requiring that sidewalk improvements be provided and will summarize recommended best practices and guidelines that have been prepared over the past decade to improve sidewalk construction and assure that the sidewalk environment is accessible for all users. Following chapters will refer to how other cities and states are attempting to address sidewalk issues.

2.1 Americans with Disabilities Act (ADA)

Beginning in the 1960s federal and state officials increasingly recognized that persons with disabilities should be provided with greater access to community facilities in order to fully participate in society. The Architectural Barriers Act of 1968 was the first federal statute requiring improved access to community facilities, but the statute only applied to federally funded buildings and facilities.

The Rehabilitation Act of 1973 broadened the policy and:

- Created the Architectural and Transportation Barriers Compliance Board, since renamed the United States Access Board;
- Charged the Board with the responsibility of ensuring that the federal laws were being enforced, and;
- Empowered the Board to conduct research, issue guidelines and standards governing accessibility, and educate the public regarding accessibility issues.

Since 1973 the Access Board has been conducting research, providing educational services and issuing technical guidelines concerning programs and facilities that can improve accessibility for persons with disabilities. The guidelines are then adopted by the US Secretary of Transportation, as they pertain to public transportation programs and facilities, and by the US Attorney General, as they pertain to all other programs and facilities.

The Americans with Disabilities Act (ADA) of 1990 expanded the scope of these federal efforts by recognizing that persons with disabilities share basic civil rights with other

Americans. The ADA specifies four policy areas within which the rights of persons with disabilities must be protected:

Title I Employment	Title III Public Accommodations
Title II Public Services	Title IV Telecommunications

Title II of the Americans with Disabilities Act requires that:

> …no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.

2.1.1. ADA Accessibility Guidelines Affecting Sidewalks

Because sidewalks are considered to be a public program, all governmental agencies operating streets or highways with sidewalks are required to assure that sidewalk systems are designed so that they do not discriminate against persons with disabilities.

For sidewalks, the Architectural Barriers Act of 1968 and the Rehabilitation Act of 1973 already required that curb ramps be constructed as part of public projects involving street construction and that other elements of sidewalks be accessible.

In 1992 the Department of Justice (DOJ) adopted new regulations based on the 1990 legislation that established that a sidewalk system constitutes a public program. The regulations require that a curb ramp be installed at any location where a person using a sidewalk encounters a vertical curb. In its rule making document implementing Title II of the ADA, the DOJ stated:

> The legislative history of title II of the ADA makes it clear that, under title II, "local and state governments are required to provide curb cuts on public streets." As the rationale for the provision of curb cuts, the House report explains, "The employment, transportation, and public accommodation sections of . . . [the ADA] would be meaningless if people who use wheelchairs were not afforded the opportunity to travel on and between the streets." Id.

Current ADA design guidelines require that:

- Curb ramps be constructed at intersections and mid-block crosswalks
- Sidewalks and walkways be stable, firm and slip resistant
- Vertical changes in a walkway be no greater than ¼ inch
- Objects may not protrude into the pedestrian route by more than 4 inches
- A minimum vertical clearance of 80 inches be provided; where that minimum clearance cannot be provided, pedestrians must be physically directed around the obstacle

2.1.2. ADA transition plans

Since 1992, governmental agencies have been required to develop and maintain "transition plans" documenting how they will implement structural changes in order to comply with the ADA guidelines. The transition plan is required to:

- Identify existing obstacles to facilities
- Describe how the facilities will be made accessible
- Establish a schedule that will lead to compliance with the regulations
- Identify steps that will be taken each year during the transition period
- Identify the official responsible for implementing the plan.

The requirement to adopt transition plans, established at 28 CFR 35-150 (d), states that "if a public entity has responsibility or authority over street, roads, or walkways, its transition plan shall include a schedule for providing curb ramps or other sloped areas where pedestrian walks cross curbs …"

2.1.3. Where are curb ramps required

Curb ramps are required at most locations where able bodied pedestrians could reasonably be expected to cross the street. As a minimum, curb ramps are required at all street intersections where there are sidewalks, whether or not the intersection is signalized, and at any marked mid-block crosswalk. Where opportunities for able bodied persons to cross a street are frequent or in fact continuous, such as within a downtown, curb ramps have to be provided sufficiently frequently to assure reasonable opportunities to cross the street. Requiring a person in a wheelchair to travel 1,000 feet to a traffic signal in order to cross a street is not reasonable; additional curb ramps should be installed at locations where able pedestrians could be expected to cross.

2.1.4. Public Rights-of-Way Access Guidelines

The Access Board is currently in the process of finalizing public rights of way accessibility guidelines (PROWAG) that will define how public spaces, especially pedestrian facilities including sidewalks, should be designed and managed to assure accessibility and mobility for persons with disabilities.

The Access Board discovered when developing its previous accessibility guidelines that public rights-of-way presented numerous technical issues requiring additional research and public discussion. Many of the basic technical criteria that had been adopted for assuring accessibility proved infeasible in some public rights-of-way. For example, in San Francisco and many other hilly cities, it would be infeasible to modify all sidewalks to comply with maximum longitudinal slope standards. For other technical remedies, there are conflicts between disability communities regarding what treatments are appropriate.

An extensive technical research program was conducted with public outreach. Two rounds of draft technical guidelines were circulated for comment, the last in the fall of 2002. The Access Board is now completing a final rulemaking document for the PROWAG that it intends to publish at the end of 2005 or early in 2006.

Once the PROWAG have been adopted by the Access Board, the Department of Justice and the Department of Transportation will prepare and issue federal regulations to implement the guidelines.

2.1.4.1. Detectable warning strips

Some of the PROWAG technical guidelines have already taken effect, including a requirement that all curb ramps provide detectable warning to alert pedestrians of the risk of moving vehicles. A 36 inch wide detectable warning strip is also required anywhere a walkway crosses or adjoins a vehicular way and the walking surface is not separated by a curb, railing or other element.

Detectable warning consists of a material extending the width of the walking path that:

- Is integral to the walking surface
- Has a set of raised truncated domes
- Contrasts visually with adjoining surfaces -- light-on-dark or dark-on-light

Curb ramp with detectable warning strip, Highland Park, NJ *(VTC)*

In July 2004 NJDOT released a "Baseline Document Change" amending the standard state specification for curb ramps to require detectable warning strips at both curb ramps and other blended transitions. As a result, these strips are beginning to appear in new construction and reconstruction projects in New Jersey.

2.1.4.2. Revised transition plans

Any public entity that has responsibility or authority over streets, roads or walkways will have to revise its ADA transition plan to document how the entity intends to bring its curb ramps and other sidewalk surfaces into compliance with the revised specifications governing detectable warnings. Public entities will also have to amend their transition plans to document how they intend to implement other provisions of PROWAG that require structural changes.

2.2 Federal Surface Transportation Programs

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) provided much stronger support for using federal transportation funds for pedestrian purposes, including the construction of sidewalks. Its successor, the Transportation Efficiency Act for the 21st Century (TEA-21) continued to clarify that federal transportation funds should be used in a fashion that benefits all forms and users of transportation; including pedestrians and bicyclists.

TEA-21 amended previous federal legislation to state that:

> Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted
>
> Pub. L. 105-178, Sec. 1202(a)(3), codified as 23 USC 217 (g)

The legislation also states that pedestrian and bicycle facilities may be constructed with funds provided for any of the various federal roadway funding programs.

The Federal Highway Administration has issued guidance for implementation of the statutory policy (Title 23, Part 652 – Pedestrian and Bicycle Accommodations and Projects).

The guidance clarifies that:

- Sidewalks or walkways can be constructed on all federally funded highway projects as incidental elements
- Sidewalks and walkways can be constructed as independent projects using federal highway funds
- The safe accommodation of pedestrians and bicyclists should be given full consideration during the development of Federal-aid highway projects and during the construction of such projects
- The special needs for the elderly and the handicapped shall be considered in all Federal-aid projects that include pedestrian facilities.
- Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort shall be made to minimize the detrimental effects on all highway users who share the facility

2.3 FHWA Best Practices Design Guide and AASHTO Guide for the Planning Design and Operation of Pedestrian Facilities

In 2001 the Federal Highway Administration (FHWA) published *Designing Sidewalks and Trails for Access Part II: Best Practices Design Guide*. The FHWA guidebook was prepared to provide readers with a better understanding of how sidewalks and trails should be developed to promote pedestrian access for all users, including people with disabilities. The guidebook provides excellent background information regarding the characteristics of different types of pedestrians and methods that can be used to assure that pedestrian needs are being met during the design and operation of different types of transportation facilities.

In July 2004 the American Association of State Highway and Transportation Officials (AASHTO) published its *Guide for the Planning Design and Operation of Pedestrian Facilities*. Section 3.2 of that publication provides guidelines for the design of sidewalks, which provides similar guidance to the FHWA report.

The following discussion is largely drawn from Chapter 4 of the FHWA Guidebook, “Sidewalk Corridors”, which provides a particularly useful discussion of how sidewalk areas are configured and used. The approach followed in “Sidewalk Corridors” presents issues that need to be addressed in designing sidewalks that can effectively serve

pedestrian needs. The discussion is augmented with guidance from AASHTO and information on best practices used by cities and states that were contacted during the preparation of this report.

2.3.1. Sidewalk Corridor and Sidewalk Zones

Highway designers describe the area of a highway located between the edge of the roadway and the edge of the right-of-way as the "border area" or "border". The term "Sidewalk Corridor" is taken from a Portland, Oregon report describing the same border area on a street or highway that has a sidewalk. As with the more general term border, the sidewalk corridor is not restricted to just the sidewalk itself, but also includes the remainder of the right-of-way located outside of the edge of the roadway.

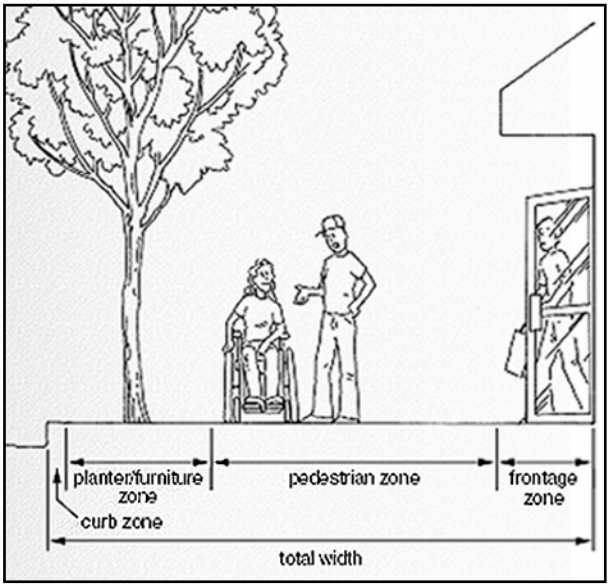
The FHWA Guidebook divides the Sidewalk Corridor into four zones – extending from the inside of the roadway to the right-of-way – as follows:

Curb zone	Pedestrian zone
Planter/furniture zone	Frontage zone

The use of this zone concept can greatly assist planners, designers, property owners and tenants understand how an entire sidewalk corridor is used and what functions each zone within a corridor must serve.

The zone system assumes that the sidewalk corridor has been constructed as a typical urban street. However, each of these zones can vary in dimensions, or even not exist and thereby have a dimension of zero. Knowledge that one zone of the sidewalk corridor is missing along a street is helpful, since that usually will mean that other zones, the highway itself or the abutting property will have to serve the missing function.

For example, if there is no pedestrian zone – that is, if there is no sidewalk, pedestrians will be required to walk on the roadway, in the landscaped border area or on private property that abuts the highway. In the following discussion, the effect of narrow or non-existent zones will be discussed for each zone.



Sidewalk corridor zones *(FHWA Best Design Practices Guide)*

The AASHTO Guide does not use the sidewalk corridor vocabulary but recognizes the importance of curbs, planter/furniture buffer area, sidewalk area and frontage area.

2.3.1.1. Curb zone

Curbs are a defining element of an urban street and establish a clear separation between the roadway and the border area. Curbs have been a component of urban streets from at least the time of the Romans and were initially constructed to facilitate urban street drainage.

Curbs help to contain vehicles within the roadway area by providing both a physical and visual definition of the roadway's edge. For roadway segments on which on-street parking is permitted, curbs aid drivers while they are parking. By keeping cars off the adjoining furniture/planting zone, curbs also reduce damage to street furniture and help to protect soils for landscaping.

The pavement of streets with curbs is less likely to unravel as a result of vehicle pressures exerted at the edge of the roadway. Planting on soil adjoining the curb is less subject to compression; as a result, grass or other groundcovers usually grow healthier.

Conventional concrete curbs are usually 6" wide at the surface with a 6" vertical reveal above the roadway grade. These dimensions, although typical, can vary substantially. The RSIS permit the use of granite block curbs, which are 4" wide at the surface. NJDOT requires the use of a 4" high vertical reveal on highways having a posted speed greater than 40 MPH, and allows an 8" vertical reveal on lower speed roads that have parallel parking. The 4" high vertical reveal required by NJDOT on high speed highways allows a driver to maintain control over the vehicle in the event that it does drive over the curb.

<u>Roads without curbs</u>

On roads without curbs, the curb zone becomes an area of imprecise definition where the shoulder pavement ends and the border begins – on most roads the edge of pavement will vary by around one foot and will change over time as the edge of the pavement gradually unravels. Alternatively, grass and other landscaping materials can gradually encroach onto the pavement surface.

A number of cities have experimented with eliminating curbs from some or all of special pedestrian oriented streets. This design, known as a blended transition, uses differing paving materials to define the edge of the roadway and the beginning of the sidewalk corridor. Bollards or other street elements can also be used to help assure that motor vehicles won't encroach into the sidewalk corridor. With this type of street, pedestrians, including those with mobility impairments, are able to freely move across the street at all points.

2.3.1.2. Planter/furniture zone

The planter/furniture zone refers to the strip of land, if any, that separates the sidewalk from the curb. The planter/furniture zone has been given at least 28 different names across the nation, in part reflecting the wide variety of functions that it serves. In legal cases involving sidewalks in New Jersey, the planter/furniture zone is referred to as the "grassy strip". Some other names identified in the FHWA study include:

Collector strip	The parking	Snow zone
Parking strip	Tree lawn	Devil's strip
Utility strip	Grass Lawn	Planter strip

Sidewalk corridors typically have to accommodate a variety of objects in addition to sidewalks. Some of these objects have to be located adjacent to the curb, such as parking meters and parking regulation signs. Other objects that are often located in this area include bus stop shelters, fire hydrants, water and gas utility valves, lamp posts and/or utility poles, and traffic signal controller boxes.

The planter/furniture zone is also used to store snow that has been plowed from both the adjoining street and from the sidewalk. In a state such as New Jersey, where snowfalls can deposit more than 20" of snow, the FHWA Guide recommends a minimum width of six feet for snow storage. Where that width is not available, snow is partially stored at the edge of the roadway and partially spills onto the sidewalk. If no furniture zone is provided, or where the sidewalk is located only two or three feet from the curb, which is typical, snow from the street is plowed onto the sidewalk area, forcing the abutting property owner to shovel the sidewalk clear of snow and then clear the snow and slush that is plowed onto the sidewalk from the street.

In addition to these utilitarian features, the planter/furniture zone is used for a variety of pedestrian amenities, including street trees. Street trees provide valuable shade for pedestrians in summer, can moderate weather conditions in winter by reducing surface wind, and can help to create a buffer between moving vehicles and pedestrians. However, for healthy root growth, street trees require a minimum of 6' of soil between the sidewalk and the curb, and desirably should have 8' to 10'. Where less than 6' is provided, tree health can suffer, and roots are more likely to damage the curb, the sidewalk or both.

The separation that the planter/furniture zone provides between the curb zone and the sidewalk facilitates the installation of curb ramps and driveways – the greater the width of the furniture zone, the greater the elevation change that can be accommodated. Six feet of separation is required to accommodate a 6" high curb for a typical curb ramp having the maximum slope of 1:12.

Narrow planter/furniture zones

Where less than four feet of separation is provided between the curb and the sidewalk, conflicts will inevitably occur. Driveways and curb ramps typically will extend partially into the pedestrian zone, creating a warped surface that may cause a fall or an injury, even if designed to meet ADA standards. Signposts, parking meters, and sidewalk furniture typically located in the planter/furniture zone may intrude into the pedestrian zone if insufficient width is provided.

A narrow planter/furniture zone often is planted with grass or various types of ground cover. These types of plantings however only grow well where there is little demand for pedestrians to cross the narrow strip. Trees planted in a narrow zone will likely cause damage to the sidewalk and curb unless provided with a special tree well.

Where the furniture zone is less than four feet, or where pedestrian traffic is extensive, the use of a paving material may be required, especially in areas that attract walkers onto the strip, such as areas with bus shelters, newspaper vending machines or parking meters. Where a paving material is provided for the furniture zone, it should have a color that contrasts with both the sidewalk and the curb.

Increasingly in New Jersey and elsewhere, narrow or heavily used furniture zones are being surfaced with red brick or other types of pavers that provide both textural and color contrast with the concrete used for the curb and sidewalk. Frequently these pavers are laid on a bed of sand, a practice that can provide additional air and moisture to tree roots and reduce run-off from the urban streets. However, this design will result in the need to reset the bricks relatively frequently, both because root and ice damage can create vertical changes in the surface and the bricks are easily removed or vandalized. As a result, many cities recommend that the contrasting bricks or pavers be set in a bed of concrete.

No planter/furniture zone

Where no separation is provided between the curb and the pedestrian zone, the width of the sidewalk should be increased by two feet to compensate, effectively creating a paved two foot furniture zone that provides no contrast with the sidewalk.

Where there is no planter/furniture zone, special designs are required to safely accommodate curb ramps. These can include the use of curb extensions at intersections to provide the needed five or six feet for the ramp, or else the entire sidewalk must be dropped in elevation sufficiently to achieve the needed reduction in vertical height.

Streetscape and sidewalk improvements on Main Street in Raritan, NJ *(VTC)*

On bridges and in tunnels or underpasses where the opportunity to provide separation may be limited, the FHWA Guide recommends that a railing or raised concrete barrier be provided to separate pedestrians from moving motor vehicle traffic. Many older underpasses in New Jersey place the sidewalk at a substantially higher elevation than the roadway – often 2 to 4 feet above the roadway – and provide a railing to protect against the vertical drop. The elevation difference provided with this design helps to protect pedestrians from some of the noise of the underpass and establishes a highly effective barrier between the sidewalk and the moving vehicles.

Elevated sidewalk as part of an older underpass of a rail bridge in Edison, NJ *(VTC)*

Sidewalk separation on high speed roadways

The FHWA Best Practices Guide does not address the issue of sidewalk separation on high speed arterial and collector roads.

Planter/furniture zones are especially important on arterial streets and highways where traffic volumes are higher and vehicle speeds make foot travel more intimidating. Added separation is also desirable on suburban collector streets where traffic speeds are higher. Where sidewalks are lacking along such an arterial street, worn pedestrian paths, commonly called “goat trails”, frequently are situated ten feet or further from the edge of pavement.

Worn path adjacent to an arterial roadway in Landing, NJ *(VTC)*

As discussed earlier, at higher speeds, NJDOT reports that vertical curbs have been ineffective at stopping motor vehicles from leaving the road, and vertical curbs greater than 4” in height can cause a driver to completely lose control of the vehicle. As a result, pedestrians are correct in perceiving that the border area along a highway may be more hazardous and that a path further from the highway, preferably outside of the clear zone, would be preferable.

States and cities across the country now recommend that wider separation be provided on arterial highways, with many recommending widths of 8’ or greater. The City of Scottsdale, Arizona has established typical sections providing 10’ of separation between sidewalks and the edge of major arterials and sidewalks plus a six foot shoulder/curb section, creating a total of 16’ separation from the live travel lane. Sacramento, California has adopted similar typical cross-sections for arterials in suburban or rural parts of that city. The New York State Highway Design Manual recommends that in lightly developed areas sidewalks should be located as far as practicable from the travel lanes, and that 2.5 meters or more should be provided between the back of curb or edge of shoulder. (§18.6.5.1) Other states generally recommend that as wide a buffer as possible be provided on high speed highways.

Added sidewalk separation on arterial highways is also important for snow storage. Multi-lane highways or two-lane highways with shoulders or wide parking lanes have wider widths than neighborhood streets; when plowed, the added width results in a need to store additional snow. Providing ten feet of separation allows plows to clear the roadway without pushing snow onto the sidewalk.

2.3.1.3. Pedestrian zone

The pedestrian zone constitutes the portion of the sidewalk corridor where people are intended to walk. Typically this consists of the sidewalk, but it can represent a narrower portion of a wider sidewalk surface that also functions as the planter/furniture zone or the frontage zone. In some older urban areas the entire sidewalk corridor is surfaced with concrete.

Sidewalk width

The width of the pedestrian zone should reflect the projected travel demand by pedestrians. In low and moderate density residential areas having a net density of less than four dwelling units to the acre, the pedestrian zone will not have to accommodate large numbers of pedestrians.

The FHWA Best Practices Guide states that the pedestrian zone should be at least five feet wide – sufficient to allow a person walking in one direction to comfortably pass a person walking in the opposite direction, or to allow two adult males to comfortably walk side-by-side. The absolute minimum width according to this source is three feet – the width required for accessibility -- and should only occur at locations where a constraining obstacle cannot be easily removed.

The AASHTO Guide states that the minimum clear width for the sidewalk must be four feet, but that for such narrow sidewalks five foot or wider passing areas should be provided at "reasonable intervals." In New Jersey, the Residential Site Improvement Standards (RSIS) require a minimum width of four feet for sidewalks on residential streets.

Wider pedestrian zones are required in areas that will have more than occasional pedestrian traffic -- in commercial areas, near schools, in high density residential areas and adjacent to office buildings, health facilities and free standing stores. In these types of areas, special studies are required to determine the anticipated pedestrian traffic that will need to be accommodated and the types of pedestrian conflicts that will occur.

The sidewalk in front of the State Theater in New Brunswick, NJ is 22 feet wide. *(VTC)*

In commercial areas and shopping centers, the pedestrian zone typically ranges from 8' to 12' in width to allow groups of two or three walking in opposite directions to pass each other.

Even wider widths are required near movie theaters, concert halls, ballparks or other locations that will attract concentrated flows of pedestrians. Formulae for calculating the needed width of a pedestrian zone in such a location can be found in the Highway Capacity Manual. Failure to provide adequate sidewalk widths may hinder emergency

evacuations. Inadequate widths can also result in pedestrians encroaching into adjoining traffic lanes or landscaping.

Conflicts between persons in wheelchairs or using walkers occur very seldom in most residential areas, but can be anticipated near assisted living facilities, hospitals or developments constructed to accommodate the needs of persons with disabilities. Similarly, near grocery stores the pedestrian zone needs to be at least six feet wide to allow persons pushing shopping carts in opposite directions to easily pass each other.

PROWAG has proposed a minimum sidewalk width of four feet, but recognizes that five feet is desirable. Similarly the AASHTO Guide establishes a minimum width of four feet, but recognizes that more than four feet will be needed in many areas. In addition, if a sidewalk directly abuts the curb, AASHTO recommends a sidewalk width of six feet in residential areas and at least 8 feet in commercial areas or along arterials.

Existing objects may block the sidewalk zone. Where possible, objects such as utility poles, traffic controllers or traffic signal poles should be moved to locations out of the pedestrian zone. It may not be feasible or desirable to move a large tree, a building or a retaining wall. Where such an obstruction blocks the pedestrian zone, ADA requires that a minimum clear width of 36” be provided and that there should be 60” areas available on either side of the obstruction. An alternative approach, where feasible, would be to curve the pedestrian zone into the planter zone or the frontage zone in order to move around the obstacle. In some cases it may be necessary to acquire a sidewalk easement or additional right-of-way to save a large, healthy tree.

Sidewalk horizontal alignment

Like other movement channels, the zone needs to be designed to facilitate smooth flows of pedestrian traffic. Sharp horizontal curvatures should be avoided, as should unpredictable changes in grade. In discussing meandering sidewalks, the AASHTO Guide recommends that horizontal curvature of the walking route provide a minimum radius of 300 feet.

Sidewalk vertical alignment

The vertical cross-slope should be smooth and designed to adequately drain storm water. For ADA purposes, the maximum permitted horizontal cross-slope is 1:48 or 2.08%; the NJDOT Design Manual establishes a maximum cross-slope for sidewalks of 2% and a minimum cross-slope of 1.5%.

The pedestrian zone should be clear of protruding objects or vertical obstructions that could harm a user of the sidewalk. In addition to creating a hazard, protruding or overhanging objects will require taller pedestrians to duck or otherwise avoid the obstacle, impacting the flow of other pedestrians. Sidewalk obstructions pose a special risk for persons with visual impairments. The PROWAG recommended a minimum vertical clearance of 80” for protruding objects such as awnings, signs or tree branches.

Obstacles

The pedestrian zone is the minimum width required to actually accommodate moving pedestrians, and therefore needs to be kept clear of obstacles. The pedestrian zone should not be blocked by vending machines, trees or planters, signs, utility poles, light standards

or other street elements. These obstacles should instead be located either in the furniture zone or the frontage zone.

Sidewalk cafes

Sidewalk cafes add interest to a commercial area and provide patrons with a great place for people watching. Municipalities in New Jersey frequently allow restaurants to operate sidewalk cafes within the sidewalk corridor. However, when these eating areas are located within the pedestrian zone, as they frequently are, the flow of pedestrians is blocked, creating inconvenience to both the diner and the pedestrian.

This utility pole blocks the pedestrian zone. *(Dan Burden, www.pedbikeimages.org)*

Ordinances permitting sidewalk cafes should require that the minimum pedestrian zone width be kept clear of tables, chairs, awnings or other obstacles and of sign boards and menu boards. The preferable location for a sidewalk café is within the frontage zone that separates the pedestrian zone from the right-of-way line or within the front yard area of the restaurant. At sidewalk cafés in Europe customers typically sit with their chairs backing onto the building wall, thereby providing the diner with the best view of life on the street, and keeping the diner out of the flow of people in the pedestrian zone. This location also allows the wait service to only intrude into the edge of the pedestrian zone.

A sidewalk dining area in a 17-foot-wide planter/furniture zone in New Brunswick, NJ *(VTC)*

The alternative location for sidewalk café tables is in the furniture zone. However, this area puts diners in closer proximity to motor vehicle traffic and noise, and it forces the servers to cross the pedestrian zone to reach the tables.

2.3.1.4. Frontage zone

The frontage zone consists of the space between the pedestrian zone and the edge of the right-of-way.

Pedestrians need at least 12” of “shy space” from a physical obstruction, whether it is a building wall, a fence or a hedge. The AASHTO Guide and Oregon sidewalk standards

recommend that 24" of shy space be provided from walls or buildings. Thus, if a physical obstruction exists at the property line, the frontage zone must account for this shy space.

In suburban areas, where buildings are typically set back from the property line, the frontage zone may be effectively much larger because of adjoining yard space. However, even in these areas it is customary to provide a one or two foot separation between the sidewalk and the property line. This frontage zone may be used for buried utilities, accommodate utility meters and cut-offs and to protect landscaping on the adjoining yard area.

In areas where front yards are narrow or non-existent, the frontage zone represents a portion of the sidewalk corridor that is not available for the movement of pedestrians. Pedestrian movement may be physically blocked by front stoops or entries that are located on easements within the public right-of-way, or they may be practically blocked by the need to steer clear of doors that might open at any moment onto the sidewalk corridor.

The frontage zone also must accommodate the movement of people into and out of buildings, much like acceleration and deceleration lanes on highways. People entering or exiting buildings also frequently stop to converse in these areas – if adequate space for these informal meetings is not provided, the groups will block the flow of pedestrians. The frontage zone also provides space for window shoppers to gaze at shop windows without blocking the movement of pedestrians.

Planters and an open door restrict the pedestrian zone in front of this restaurant in New Brunswick, NJ. *(VTC)*

Since the institution of regulations and ordinances prohibiting smoking within public buildings, the frontage zones have also become increasingly used as outdoor smoking rooms. Where adequate space for this function has not been provided, the smoke and the bodies of smokers can impact the flow of pedestrians in the pedestrian corridor and the movement of persons in and out of buildings.

As discussed previously, the frontage zone is also the most appropriate location for sidewalk cafes.

Ideally sidewalks in commercial areas should include sufficient definition of the frontage zone to guide pedestrians, including persons with visual disabilities, around any obstacles, hazards or congested areas.

2.4 Institute of Transportation Engineers

The FHWA Best Practices Design Guide and the AASHTo Guide for the Planning Design and Operation of Pedestrian Facilities are the most commonly referenced guides for sidewalk design, however, the Institute of Transportation Engineers also provides guidance on siting and design of pedestrian facilities. *Guidelines for Residential Subdivision Street Design,* a recommended practice of the Institute of Transportation Engineers (ITE), was published in 1997 and provides guidance regarding the planning and design of new subdivision streets including both local and collector streets. This publication recommends the following relative to sidewalks:

ITE Sidewalk Guidelines		
	Local Streets	*Collector Streets*
Where sidewalk required	Only in medium and high density areas	In all residential areas
Minimum sidewalk width	4’, 5’ desirable; 5’ in high density areas; 6’ if sidewalk abuts curb	Same as on local streets
Sidewalk separation from curb	5’ to 6’ recommended	10’ minimum
Width of right-of-way	60’ 50’ in low density areas without sidewalks	70’ plus 10’ utility easements; 90’ total width

3.0 Who Builds Sidewalks in New Jersey and How?

3.1 Who Builds Sidewalks and When

3.1.1. Land developers

Most sidewalks in New Jersey are constructed by individuals or corporations as part of the land development process. Applicants proposing a new development must submit subdivision and/or site plans that propose where new streets will be constructed and how they will be designed. These plans also propose improvements required along existing streets on which the property abuts or which the development will impact.

Once development has occurred along a street, especially residential development, it is extremely difficult both physically and politically to retrofit the street with sidewalks. In interviews, municipal, county and state officials all agreed that the best time to construct sidewalks along a street (or a walkway through a development) is when development occurs.

3.1.2. Public agencies as part of street construction or reconstruction

Sidewalks in New Jersey also get constructed when the entity having jurisdiction over a roadway constructs, improves or reconstructs a street or highway. This is especially likely to affect collector roads and arterial highways, but it can also occur on local roads that are being improved to current municipal standards.

Major roadway construction projects provide public agencies with an opportunity to bring roadways and their features into conformance with current improvement standards. Major revisions of the roadway's grade, improvements to drainage, widening of the roadway surface or the introduction of curbs will result in substantial impact to the character of the roadway, allowing the introduction of sidewalks at the same time.

Reconstruction of roads is especially likely to occur when rural roads are being converted to an urban cross-section with sidewalks and curbs, a smoother horizontal and vertical profile, and subsurface storm water drainage. This type of major restructuring of the roadway, which may also require the acquisition of additional right-of-way, is an ideal time to grade the sidewalk area and install sidewalks.

Even if sidewalks are not constructed as part of street reconstruction, the buffer areas between the edge of the roadway and street right-of-way lines can be graded and reserved for future construction of sidewalks when development occurs. To be effective for this purpose, however, it is necessary to keep the area reserved for sidewalk construction free from tree growth or other encroachments that might encourage approval authorities to waive sidewalk construction.

Roadway widenings or realignments that require adjustments to rights-of-way provide the agency having jurisdiction with the opportunity to secure additional lands, if needed, on which to construct sidewalks. Additional land may be needed if the existing right-of-way is narrow – often the case on rural local or collector roads that often have a right-of-way of only 33 feet, or when widening of a highway results in the existing sidewalk area being converted to part of the roadway.

3.2 Statutory Framework for Requiring Developers to Construct Sidewalks

3.2.1. Municipal Land Use Law – NJSA 40 Chapter 55D

The statutory authority for development review rests in the Municipal Land Use Law. Municipal approving authorities (planning boards and zoning boards of adjustment) are the principal entities responsible for approving development applications. They act under ordinances adopted by the municipal government pursuant to the Municipal Land Use Law. The circulation element to the municipal master plan can provide further guidance to theses boards regarding where and when sidewalks and walkways should be constructed and how they should be designed.

3.2.2. Residential Site Improvement Standards (NJSA 40:55D-40.1 to 40.7)

L. 1993, c. 32 amended the Municipal Land Use Law by creating the Site Improvement Advisory Board, an agency within the Department of Community Affairs that is responsible for establishing statewide standards for residential land development. The regulations enacted by this board, the Residential Site Improvement Standards (RSIS), are interpreted as being "the minimum required to ensure public health and safety, and the maximum that may be required in connection with residential development." As a result, if the RSIS create a development standard for a type of improvement, municipal ordinances and circulation plans can not require any greater level of improvement. However, if the RSIS do not address a specific issue, the municipal ordinances and plans can continue to take effect.

There is no comparable set of statewide standards establishing requirements for non-residential developments. As a result, municipalities are still allowed to adopt sidewalk and other improvement standards for non-residential developments, and these standards can differ from the standards established by the RSIS.

Development regulations adopted by counties and state agencies for the review of developments are not directly affected by the RSIS according to NJAC 5:21-1.5(e). As a result, these agencies can require a greater level of improvement for sidewalks or other site improvements, even in residential developments. However, the RSIS include the following statement:

> Where these rules and any other State or county laws, rules or regulations establish differing requirements, then the requirements of these rules shall govern, except where any such differing requirement is more restrictive.

Therefore, if both the RSIS and another State or county standard apply to a site improvement, then the most restrictive of the standards will apply. In practice, according to interviews conducted as part of this research, the RSIS is applied when a residential site improvement is only subject to municipal review. If the site is also subject to county or State review, then the applicable county or State standards are applied.

3.2.3. County Planning Enabling Statutes (NJSA 40:27)

County planning boards are required to adopt a master plan, which among other things may include recommendations regarding the general location, character and extent of streets or roads, viaducts and bridges. The language used in the statute is sufficiently

broad to permit the master plan to include recommendations for sidewalk location and design along county roads. It can also include "other features as may be important to the development of the county".

If a county has a planning board, the board of freeholders of the county is required to adopt a resolution establishing procedures and standards for the review of subdivisions and non-residential site plans. Among other things, the county review standards can require a developer that abuts a county road to make improvements relating to the safety and convenience of the traveling public. Although the statute does not specifically state that sidewalks can be included as an element of review, the language used in the statute is sufficiently broad to allow county boards to require developers to provide sidewalk improvements.

County development regulations generally include typical highway cross-sections that either include sidewalks or reserve an area in which sidewalks can be constructed. In phone interviews, county planning staff indicated that reviews of developments along county highways will usually require the construction of sidewalks if the highway already has sidewalks and will definitely require the replacement of sidewalks if an applicant is being required to widen an existing roadway with sidewalks. The county usually lets municipalities determine whether a developer should construct sidewalks along the development frontage where sidewalks currently don't exist. Where municipalities are looking to the county for guidance, generally no determination is made and no sidewalk will be required.

3.2.4. State Highway Access Act

The State Highway Access Management Act requires NJDOT to adopt an Access Code that establishes standards for the geometric design of driveways and of intersections and interchanges. These standards are to reflect different classes of highways based on highway function, context, safety and speed.

NJDOT uses the Access Code to review requests for access permit approvals. In conducting its review, NJDOT can require improvements based on the Access Code, and can require fair share financial contributions for improvements to off-site streets and highways. Access permits granted by NJDOT "may contain whatever terms and conditions the commissioner finds necessary and convenient for effectuating the purposes of" the State Highway Access Management Act.

The State Highway Access Management Act provides broad language within which specific standards governing the provision and design of sidewalks and other pedestrian improvements could be justified. However, the act does not specifically charge the department to include improvements in access permit approvals to safely serve pedestrian travel to and from a development fronting on a state highway. If the NJDOT determined that a sidewalk is required to assure the safe operation of a driveway intersection with a highway, it could require construction of a sidewalk along the applicant's frontage.

3.2.5. Special Area Legislation

The state legislature has created six special planning areas of statewide significance. Within these areas, regional development regulations have been adopted to protect or enhance the unique land and/or water resources that characterize the region. These

additional regulations are in addition to municipal, county and state agency ordinances and regulations. The regional regulated areas are as follows:

- Hackensack Meadowlands District (NJSA 13:17
- Delaware & Raritan Canal State Park Review Zone (NJSA 13:13A-14)
- Coastal Area (NJSA 13:19)
- Waterfront Development area (NJSA 12:5)
- Pinelands Protection Area (NJSA 13:18A)
- Highlands Region (NJSA 13:20)

In each of these areas the state legislature has established special procedures and, in several cases, specialized agencies, to adopt development regulations and review developments, or to oversee how municipalities review developments.

Regulations and development reviews conducted under the Waterfront Development process, which applies in the zone between the tidewater and the first road or railroad, have been especially important in developing sidewalks and walkways within the urban waterfront areas of the state including Hudson County, Camden, Newark and Trenton. Similarly, regulations of the Delaware & Raritan Canal Commission have been useful in establishing enhanced walkway and sidewalk construction standards in urbanized segments of the canal state park, such as within Lambertville.

3.3 Statutory Framework for Constructing Sidewalks by Public Agencies

The responsibility for constructing roads, streets and highways in New Jersey is shared by municipalities, counties, the NJDOT and various authorities and commissions. These various jurisdictions are provided with individual authority for constructing and managing sidewalks. However, the main responsibility for sidewalks rests with municipalities.

3.3.1. Municipal authority (Chapter 65 of Title 40, NJSA)

3.3.1.1. Basic provisions and authority:

Chapter 65 of Title 40 provides the broad structure for sidewalk law in New Jersey; NJSA 40:65-1 gives municipalities the authority to adopt ordinances providing for sidewalk improvements and repairs such as construction, paving, and curbing.

This statute states that this work may be funded and performed by:

- the municipality
- the adjacent property owner
- the municipality and the adjacent property owner

The statute also authorizes municipalities to adopt standards for sidewalk construction and to inspect sidewalks.

The law is worded to allow municipalities to construct, repair and improve sidewalks along all highways, whether the highway is a municipal street or a county of state highway. The statute requires municipalities to secure the approval of the county prior to constructing a sidewalk along a county highway; there is no similar requirement in this statute to require a municipality to first secure approval from the state before constructing a sidewalk on a state highway.

As written, the statute appears to consider a sidewalk to be an appropriate element of a street that may be constructed at municipal expense or by the abutting property owner.

3.3.1.2. Sidewalks constructed by abutting property owners:

NJSA 40:65-2 to NJSA 40:65-9 set forth procedures that a municipality must follow when it decides to construct a sidewalk along a roadway at the full or partial expense of abutting property owners. Such a municipality is required to:

- Provide adequate notice of the municipality's plans
- Allow property owners a chance to construct the sidewalks

If the property owner or owners have "failed" to make the required improvements at their own expense, or when the municipality has agreed to share in the cost of constructing the sidewalk, the municipality is allowed to construct the sidewalk and assess the costs to be born to abutting property owners based upon the relative amount of street frontage.

NJSA 40:65-9 allows sidewalk assessments to be treated the same as local improvements in terms of payment procedures; municipalities may also assess property owners in installments over time and charge interest.

NJSA 40:65-9.1 to 65-9.8 provide procedures and conditions for reconstructing sidewalks or curbs wholly at municipal expense, but does not require the municipality to pay for such reconstruction.

3.3.1.3. Crosswalks and intersections:

NJSA 40:65-10 specifically authorizes any municipality to provide "for laying of crosswalks" and to construct the portion of the sidewalk located within the intersection. The language for this section appears to have originated from the 19th century when crosswalks were physical objects that were constructed by laying down stepping stones rather than traffic control devices that are painted onto a roadway's pavement surface.

3.3.1.4. Maintenance of highways:

NJSA 40:65-12 provides municipalities with the authority they need to require ("compel") tenants or owners of abutting property to maintain sidewalks. Like NJSA 40:65-1, this section pertains to all public highways located within the municipality regardless of jurisdiction.

3.3.2. Construction of sidewalks and curbs on county highways (NJSA 27:16-22)

As indicated above, municipalities can require sidewalks to be constructed along any public highway in the municipality. However, many municipalities are reluctant to construct improvements at public expense within county or state rights of way because they technically do not control the right-of-way. Furthermore, the state and county have broader revenue sources, and a municipality may question why it should be paying for a piece of infrastructure within another jurisdiction's right-of-way.

NJSA 27:16-22 clarifies that all counties in New Jersey except Cape May may construct sidewalks and curbing along county highways. [10] These counties may also enter into agreements with the appropriate municipalities to describe how the county and municipality would share responsibility for either the cost of construction, the cost of maintenance or the future cost for repairs. Like municipalities, counties may also apply for federal or state grants to pay for the cost of sidewalk construction.

3.3.3. Construction of sidewalks and curbs along state highways (NJSA 27:7-39)

3.3.3.1. NJDOT may construct sidewalks on state highways

NJDOT is authorized to construct sidewalks or paths along state highways and any other roads or highway under state jurisdiction. Such other roads would consist primarily of roads serving the various state agencies such as park roads, but presumably would also apply to portions of county or municipal highways within interchanges or intersections where NJDOT has jurisdiction and would want to assure sidewalk continuity.

Similar to the county statute, NJSA 27:7-39 also authorizes NJDOT to enter into agreements with counties and municipalities to share in the cost of constructing these improvements and in any future maintenance activities.

3.3.3.2. Sidewalks not included in the legal definition of a highway

NJSA 27:7-1 provides a broad list of definitions regarding terms used in the statutes relating to state highways. Importantly, that section defines a highway as follows:

> a public right-of-way, whether open or improved or not, including all existing factors of improvements.

Despite the fact that NJSA 27:7-39 authorizes NJDOT to construct sidewalks on state highways, sidewalks are not included in the definition of a highway improvement, therefore sidewalks are not included in the legal definition of a highway.

The statute defines improvements as follows:

> the original work on a road or right-of-way which converts it into a road which shall, with reasonable repairs thereto, at all seasons of the year, be firm, smooth and convenient for travel. "Improvement" shall consist of location, grading, surface, and subsurface drainage provisions, including curbs, gutters, and catch basins, foundations, shoulders and slopes, wearing surface, bridges, culverts, retaining walls, intersections, private entrances, guard rails, shade trees, illumination, guideposts and signs, ornamentation and monumenting. "Improvement" also may consist of alterations to driveways and local streets, acquisition of rights-of-way, construction of service roads and other actions designed to enhance the functional integrity of a highway. All of these

[10] Cape May County is excluded because the statute only applies to counties of the first, second, third and fifth classes. Cape May is the only 6th class county remaining in New Jersey; there are no 4th class counties. NJSA 40A-6.1 classifies counties for legislative purposes based on two factors -- population and location relative to the Atlantic Ocean shore.

> component factors need not be included in an original improvement.

The statute defines "work" as follows:

> a. Acquisition, by lease, gift, purchase, demise or condemnation, of lands for any purpose connected with highways or adjoining sidewalks, for temporary or permanent use;
>
> b. Laying out, opening, construction, improvement, repair and maintenance of highways and removal of obstructions and encroachments from adjoining sidewalks;

As indicated, the definition of work makes clear that the state highway statute excludes sidewalks from the definition of a state highway, but recognizes that sidewalks frequently adjoin highways, and that work associated with highway construction can include work on sidewalks.

Since the legal definition of a highway in all other respects is intended to be inclusive of all public improvements located within the public right-of-way, it is odd that sidewalks have been specifically excluded. Other statutes make use of the inclusive word highway, and it would therefore be desirable to include sidewalks in the definition of a highway.

3.3.4. Eminent Domain

Chapter 3 of Title 20 provides the procedures to be followed when a public agency acts to take property or interests in property. (Chapter 20:3 also applies to other entities such as utility companies that have been given the right of eminent domain when acting in the public interest.)

NJSA 20:3-46 provides the following guidance regarding the use of highway lands for the purpose of constructing sidewalks:

- Land acquired for the right-of-way of a public highway shall include all of the land necessary and desired for the locating of sidewalks whether the sidewalks are constructed when the road is constructed or at a later date
- Any land located outside of a public right-of-way on which an agency wishes to construct a sidewalk must be acquired using the procedures established under the Eminent Domain statute if a taking of the land is required
- Land required for sidewalks and the cost for constructing the sidewalk may also occur using the existing powers of counties and municipalities to require abutting property owners to construct sidewalks and the use of such powers does not require the use of eminent domain

As the above indicates, the legislature now requires public agencies when they use the power of eminent domain to acquire right-of-way for highway purposes to also acquire sufficient land for sidewalks. If however sufficient land for sidewalks is not available, the construction of sidewalks constitutes a public purpose for which the power of eminent domain may be used to acquire additional abutting property.

3.3.5. Shade Trees

Street trees are a valuable pedestrian amenity and a principal cause of damage to sidewalks. As a result, any discussion of sidewalk management must also consider street tree management.

As with transportation and land use regulation, the statutory authority for managing shade trees in New Jersey, including street trees, is shared by the state, the counties and the local municipalities.

3.3.5.1. NJDEP

NJSA 13:1L-17.1 to 17.9 is the "New Jersey Tree and Community Forestry Assistance Act". This act established a Shade Tree and Community Forestry Program within the NJDEP, which provides technical and financial assistance to local governments and shade tree commissions.

3.3.5.2. Counties

Chapter 37 of Title 40 provides counties with the authority to create county shade tree commissions, which have the authority to plant and care for shade trees, ornamental trees and shrubbery along county highways, parks and parkways. The statute is structured to also allow the county commission to plant and care for trees along municipal streets if there is no municipal shade tree commission.

3.3.5.3. Municipalities

Chapter 64 of Title 40 authorizes municipalities to create shade tree commissions and to perform duties similar to county shade tree commissions on municipal streets and parks. The municipal shade tree commissions are also allowed to control or remove trees on private property that are considered potentially hazardous to the public or which may harbor diseases or pests that need to be controlled.

Chapter 64 authorizes municipal shade tree commissions to plant and care for trees and shrubbery along state highways, provided that the Department of Transportation assents, or along county highways and in county parks, provided that the county assents.

The statute authorizes municipalities to assess the costs of planting, caring for or removing trees located on private property or on the street in front of abutting property to the property owner and establishes a process for such assessments.

3.4 Institutional Framework

The institutional framework for constructing, reconstructing and managing sidewalks in New Jersey largely mirrors the complex structure of the statutory framework.

3.4.1. Municipalities

Municipalities play the most important role in assuring that sidewalks are constructed in the first place, that they are inspected, that they are properly maintained and repaired or reconstructed when repair is needed. The central role for municipalities is appropriate given that approximately 70% of the roadway mileage in the state is under municipal jurisdiction. Furthermore, as described above, state law allows a municipality to manage

sidewalks located along a county or state highway, either in cooperation with the state or county or independently of the other agency.

3.4.2. Counties

During interviews it was surprising to learn that municipal officials believed that few counties accepted responsibility for constructing, maintaining or repairing sidewalks along county highways; these municipal officials instead believed that the county officials assumed that municipalities would handle that function. As previously discussed, Cape May County is the only county that by statute is not permitted to construct sidewalks on county roadways.

The county planning enabling statute allows counties to require developments that abut a county highway to construct needed transportation improvements necessitated by the development, and that could include sidewalks. In interviews with municipal officials and staff, however, it was stated that counties rarely required developers to construct sidewalks and instead it was the municipalities that would establish such a requirement.

Planners and engineers acknowledge that county involvement with sidewalk issues is limited. However, counties will at times require developers to construct sidewalks along county highways, especially if curbing is being added. Some counties will also consider constructing sidewalks along a highway that is being reconstructed. The inclusion of sidewalks in a county highway construction project however usually results from the request of citizens or the municipality rather than the initiative of the county.

Counties do not initiate sidewalk construction projects as independent projects. They also do not routinely inspect sidewalks or require property owners to repair defective sidewalks, but instead rely on municipalities to perform those functions. Similarly, counties are not involved in snow removal or other winter maintenance activities along county highways except where they are the abutting property owner.

As required by ADA, counties construct curb ramps where needed as part of a highway reconstruction or resurfacing project. As part of curb ramp construction, counties may also reconstruct or modify sections of adjoining sidewalk as necessary.

3.4.3. NJDOT

Although NJDOT has agreed to construct or reconstruct sidewalks along state highways, primarily as part of roadway reconstruction, the state relies on municipalities to deal with operational issues affecting sidewalks on state highways, including winter maintenance, periodic inspections to assure accessibility and most critically the requirement that sidewalks be constructed to and along developments that front on state highways.

NJDOT operates a variety of funding and capital construction programs that have been instrumental in enhancing the sidewalk environment in New Jersey in urban and suburban areas. These include:

- Constructing sidewalks, streetscape enhancements and other improvements as stand alone projects on state and county highways
- Providing local aid discretionary funding for sidewalk projects
- Providing funding through the Centers of Place funding program for streetscape and sidewalk projects

- Developing pedestrian enhancements through the Safe Streets to School Program, including improved sidewalks

3.4.4. NJDEP

Agencies within NJDEP have been active in requiring sidewalks and walkways, where warranted, within areas subject to special review such as the urban waterfront or the Delaware & Raritan Canal review zone. NJDEP has also adopted standards for walkways and sidewalks that are more extensive than the RSIS. NJDEP agencies have also developed regional circulation plans for these regions of statewide significance.

Sidewalks and walkways constructed through NJDEP review requirements remain municipal improvements and are managed by local government authorities like municipal sidewalks unless NJDEP has taken jurisdiction over a section of walkway as part of a public park.

3.5 Construction Standards and Guidelines

As with other activities associated with sidewalks, there are a broad variety of standards associated with sidewalk construction in New Jersey. These include:

3.5.1. Residential Site Improvement Standards (RSIS)

Subchapter 4 of the RSIS ("Streets and Parking") establishes standards for when sidewalks are required in residential developments and how they should be constructed.

The RSIS does not provide guidance regarding where within the right-of-way a sidewalks must be located – that is, whether a sidewalk may abut a curb or if it must be separated from the curb.

3.5.1.1. RSIS standards for when sidewalks are required

The RSIS establishes a system of residential street classification that is based on development density and the intensity of traffic. This classification system in turn triggers street improvement requirements, including whether sidewalks are required. The street improvement requirements are set forth in Table 4.3 – Cartway and Right-of-Way Widths.

The RSIS require all collector streets to have sidewalks on both sides of the street. These are streets that are projected to have traffic volumes greater than 3,500 trips per day and less than 7,500 trips per day.

All other streets except alleys are required to either provide sidewalks on both sides of the street or to provide a graded area where a sidewalk could be constructed in the future.

Medium and high intensity developments

The RSIS require sidewalks on both sides of all streets constructed in developments having a gross density greater than four dwelling units per acre. This includes most apartment, townhouse and condominium developments and most single family developments in which the minimum lot size is less than 9,000 square feet.

Low intensity developments

The RSIS also require sidewalks on both sides of streets in low intensity developments having a minimum lot size of less than one acre and are located:

- Within 2,500 feet of a train station, a public bus route or a school bus route;
- Within 2,500 feet of an existing recreational, business or retail land use or where such a use is permitted by zoning;
- Within two miles of a school site, or;
- If existing streets have sidewalks on both sides

Since almost all developments will either be located within two miles of a school or within 2,500 feet of a school bus route, the practical effect of these provisions are to require sidewalks on both sides of streets in all developments having a minimum lot size of less than one acre.

Where the RSIS does not require sidewalks on both sides of the street, sidewalks must be provided on one side of the street and a graded area on the other side.

Very low intensity developments

In low intensity developments in which the minimum lot size is greater than one acre, residential and minor collector streets are only required to have sidewalks on one side of the street. However, if the development is located within two miles of a school and the minimum lot size is smaller than two acres, sidewalks are required on both sides.

The RSIS provides special standards for rural streets or rural residential lanes. These are low volume residential streets in very low intensity developments that meet specific standards for their configuration and traffic volume. These streets have narrower roadways and narrower rights-of-way; on these streets only graded areas are required to accommodate pedestrians; if a school is located within two miles of the development, a sidewalk is required on only one side of the street.

3.5.1.2. Placement of sidewalks

The RSIS includes the following guidance regarding the placement of sidewalks:

- Parallel to the street unless an analysis justifies an exception to this rule
- Aligned so that they will not direct pedestrians between parked vehicles and the traveled way

Municipal approval authorities may require developers to construct walkways through the center of blocks that are longer than 600 feet in length, but they are not required to force developers to construct such walkways. In suburban developments with loop streets and/or cul-de-sac construction, mid-block walkways can substantially reduce walking distances and make walking a practical transportation mode, especially when the mid-block walkways lead to trip attractors such as commercial developments or schools.

3.5.1.3. RSIS standards for rights-of-way

Table 4-3 also presents maximum rights-of-way for different types of streets that are proposed for dedication to the municipality as public streets. The calculation of the required right-of-way is based upon:

- The width of the roadway required to accommodate the movement and parking of motor vehicles and
- The provision of a "utility area" on each side of the street sufficient to accommodate sidewalks and other non-roadway street elements

A series of illustrations presented in the RSIS depict how the maximum rights-of-way widths were calculated.

Since sidewalks are located within the utility area, the width of the utility area is the critical factor for determining the adequacy of the sidewalk corridor reserved by the RSIS.

Street Classification	ROW Width	Cartway Width	Width of Utility Area
Residential access street			
No parking		20 ft	15 ft
Parking one side	50 ft	28 ft	11 ft
Neighborhood street		30 ft	10 ft
Perpendicular one side	54 ft	42 ft	6 ft
Perpendicular both sides	72 ft	60 ft	6 ft
Minor collector streets			
No parking, no curb		20 ft	15 ft
No parking, with curb	50 ft	22 ft	14 ft
Parking one side		28 ft	11 ft
Parking both sides	60 ft	36 ft	12 ft
Major Collector			
No shoulder	50 ft	24 ft	13 ft
With shoulder	54 ft	40 ft	7 ft

Because of the RSIS standards for rights-of-way, developers and municipalities must make trade-offs regarding how streets in residential developments are designed to accommodate street trees, pedestrians, bicyclists and utilities.

3.5.1.4. RSIS standards for how sidewalks should be constructed

RSIS Sidewalk Construction Standards	
Sidewalk width	NJAC 5:21-4.5(g) requires sidewalks to be four feet wide Municipalities may require wider sidewalks near pedestrian generators and employment centers If a sidewalk abuts the curb in a high density area, the combined sidewalk and graded area must be at least six feet in width
Sidewalk depth	Concrete sidewalks shall be at least four inches thick At vehicular crossings, concrete shall be at least six inches thick and shall be reinforced with welded wire fabric mesh or an equivalent
Concrete standards	Note: concrete is not required by RSIS If used, air entrained concrete shall be Class B concrete having a 28-day verification strength of 4,500 pounds per sq. in.
Other materials	Materials other than concrete may be used depending on the development design. RSIS establishes no minimum standards for other materials

3.5.2. NJDOT Pedestrian Compatible Planning and Design Guidelines

In 1996 NJDOT published *Pedestrian Compatible Planning and Design Guidelines.* These guidelines provide recommendations regarding the design of sidewalks, and are used as a guide on NJDOT assisted projects.

The Guidelines are currently being revised and will be reissued as a chapter within the NJDOT Roadway Design Manual, the document that roadway designers in New Jersey are required to use for state highway design. Designers frequently refer to the Roadway Design Manual when designing county or municipal streets roads financed in part with Transportation Trust Fund money.

The revised guidelines will be especially important in guiding how sidewalks will be designed along non-residential streets and highways, since non-residential developments are not governed by the Residential Site Improvement Standards.

3.5.3. Municipal Plans and Ordinances

Municipalities have substantial freedom to establish their own standards for the construction of non-residential municipal streets.

Municipalities may also adopt special street standards as part of redevelopment ordinances. Cities such as Jersey City have used this redevelopment power to require developers to construct streets that provide higher quality pedestrian amenities than other areas of the city, including wider planting strips for street trees, special tree well standards, room for sidewalk cafes in commercial areas, pedestrian lighting standards and higher quality sidewalk materials.

4.0 Impediments and Barriers to Constructing Sidewalks

This chapter summarizes impediments to constructing, reconstructing, and maintaining sidewalks in New Jersey and to constructing wider sidewalks where needed based on the land use context.

Research was based on interviews with municipal engineers, county engineers and NJDOT officials regarding typical constraints they have faced when constructing, reconstructing, and maintaining sidewalks and summarizes the major findings.

4.1 Impediments to Constructing Sidewalks on New Roads

Interviews with municipal and state officials found that the best time to construct sidewalks is when the road is constructed, or when a highway is substantially reconstructed. Communication with professionals in the field of pedestrian and bicycle policy and design confirmed that sidewalks are most readily incorporated into a roadway's cross-section when the roadway is constructed or substantially reconstructed. Therefore, it is important to examine why sidewalks are not being constructed when new roads are constructed.

4.1.1. New streets in residential developments

As described above, the RSIS require sidewalks on both sides of most new streets constructed in residential developments, and on at least one side in low density developments.

Where sidewalks are required the RSIS require the municipal approval authority to grant a *de minimus* exception to permit the construction of a street without sidewalks. Alternatively, the municipality or the developer may request a waiver of the sidewalk requirement from the Site Improvement Advisory Board, the state organization responsible for administering the RSIS. According to the board's staff, municipalities frequently grant *de minimus* exceptions to the requirement that sidewalks be constructed in particular developments; they also frequently require a developer to construct a sidewalk on only one side of the street even though the RSIS require sidewalks on both sides.

A municipality or a developer might seek such a waiver or exception in order to:

- Enhance the "rural" look of a development
- Conform with the existing pattern of residential streets in the area
- Reduce the amount of impervious surfaces in the development
- Reduce the cost of public infrastructure

Municipalities may also seek approval for "Special Area Standards" that would preserve and/or enhance the character of a community. Special Area Standards become supplements to the RSIS if approved. To date, Special Area Standards that have been approved have not sought to eliminate the sidewalk or graded area requirements.

The RSIS have been amended on an annual basis since they were first adopted on January 6, 1997. During that period the Site Improvement Advisory Board has increased the number of streets that require sidewalks, including adding the proximity standards

that require sidewalks in most low intensity developments based on the proximity of a development to a school, school bus stop or transit service (see 3.5.1.1 above).

Before these amendments to the RSIS, developments frequently lacked sidewalks, especially high intensity planned developments and low intensity developments in rural and suburban areas. Sidewalks are especially likely to be lacking in planned developments having a large number of attached homes.

Revisions to the RSIS were approved in part to correct loopholes that developers were using to avoid constructing sidewalks along streets in these large, multi-family developments.

4.1.2. New streets in commercial developments

As discussed previously, there is no state requirement that sidewalks be constructed as part of non-residential development. Many municipalities have adopted site plan regulations that require sidewalks in commercial developments. However, planning boards may choose to waive those local sidewalk requirements along streets in commercial developments for a variety of reasons:

- Board members may subjectively find that "people won't be walking there anyway".
- A developer may request a waiver to the requirement to construct sidewalks to avoid the cost of constructing them.
- A developer who plans to own and operate the commercial development in the future may seek a waiver because he or she does not want to absorb the cost of maintaining the sidewalk in the future, or does not want to be exposed to liability suits.
- Property owners without sidewalks may object to the construction of sidewalks on a neighbor's property because of the expectation that the municipality will subsequently require them to construct a connecting sidewalk.
- Some municipal planning board members have stated that sidewalks should not be constructed along arterial streets because "we don't want to encourage people to walk along that type of highway".
- Developers may request waivers from sidewalk construction requirements to reduce the amount of impervious surface on the site, and hence the degree of storm water control required.

4.1.3. New or realigned county or state highways

Both NJDOT and county governments may construct sidewalks as part of new highway construction or may grade an area to permit future installation of sidewalk by developers or municipalities in the future.

4.1.3.1. State highways

NJDOT usually is willing to incorporate sidewalks or walkways in highway construction projects if there is a demonstrated existing or future need for sidewalks and if that need can be identified early during the project scoping process. On state projects, it is therefore critical to establish whether sidewalks are currently needed or will be needed in the future

based on planning studies. These studies should be conducted prior to the initial project scoping.

Sidewalk separation

As discussed in Chapter Two, the ITE *Guidelines for Residential Subdivision Street Design* recommends that collector streets in residential areas be provided with a ten foot separation to mitigate the impact of higher traffic volumes and speeds. Similarly, cities and states elsewhere in the nation now require ten feet of separation or more between sidewalks and arterial streets and highways. New York State now requires that sidewalks be set back a minimum of eight feet and further when possible. In addition to mitigating the impact of traffic, the wider setback provides needed room for snow storage.

The NJDOT Roadway Design Manual currently recommends that sidewalks be provided with a buffer from the highway of only three feet and allows six foot wide sidewalks to be constructed abutting the curb. If a border area of 15 feet or more is available, a minimum separation of six feet is recommended.

Securing greater sidewalk separation along state highways in New Jersey will require that NJDOT modify its Roadway Design Manual. Increasing the minimum separation to ten feet would increase the amount of right-of-way that must be acquired as part of a highway project.

4.1.3.2. County highways

County practice concerning sidewalk construction as an incidental element of roadway construction or reconstruction is very similar to NJDOT practice on state highways. Since county engineers often determine sidewalk need based on interest expressed by the municipality or the public, it is important for pedestrian advocates to participate early in discussions regarding the scope of highway projects.

Most counties do include room for sidewalks in the typical cross-sections for their highways, which in turn determine the right-of-way required. As a result, sufficient land is usually acquired. A decision not to construct a sidewalk would therefore represent a decision that a sidewalk was not required.

Some county engineers perceive their responsibility to be limited to constructing roadways for motor vehicles only. They will include right-of-way to support the future construction of sidewalks, and will grade the sidewalk area, but expect either the municipalities or developers to add the sidewalks.

As with state highways, county highways can be constructed with sidewalks and other pedestrian accommodations if such facilities are included in the initial scope of the project. County planning departments can therefore be very useful in incorporating sidewalks into new roadway construction by ensuring that sidewalks are included in typical cross-sections of new roadways, included in the project needs statements presented to Boards of Chosen Freeholders as part of the capital improvements planning process, and assuring that the scope developed for final design includes the construction of sidewalks.

4.1.4. As part of major highway reconstruction or widening

Major roadway reconstruction, whether conducted by the state, county or municipality, provides an additional opportunity to construct sidewalks or to at least grade the roadbed to accommodate sidewalks in the future.

Interviews with NJDOT engineers and county planners indicate that the reasons that sidewalks are not included in major roadway reconstruction projects are similar to the reasons sidewalks are not included in new construction. To assure that a sidewalk is constructed, its need must be established early during the project scoping process.

In addition, designers may simply overlook the need to construct sidewalks, if the existing roadway lacks sidewalks. Highway projects are usually initiated by the desire to either increase motor vehicle capacity or smooth motor vehicle flow by realigning the vertical or horizontal alignment. In this context, designers may not consider whether improved features are needed to serve pedestrians unless the issue is raised during the project scoping or review processes.

On existing roadways, however, a critical issue is the adequacy of the existing right-of-way. On widening projects designers will frequently seek to stay within the existing right-of-way in order to reduce project cost, or limit takings to incidental levels. Staying within the existing right-of-way may also help agencies avoid triggering more lengthy environmental reviews.

As with new roadway projects, designers will seek to limit the total increase in impervious materials along the highway corridor in order to reduce the costs of storm water mitigation. Similarly, designers will attempt to avoid the extent of wetland disturbance or stream encroachment required by a widening project, both to avoid mitigation expenses and more importantly to speed the approval process at NJDEP. By not constructing sidewalks and not grading the sidewalk area, the road designers may be able to accommodate the desired roadway widening within the existing graded roadbed and the existing right-of-way. Conversely, any additional storm water or wetland mitigation will trigger the need to acquire additional land, most likely through condemnation, to serve those functions.

4.2 Impediments to Constructing Sidewalks on Existing Roads

As discussed above, the best time to grade a roadbed to support sidewalks and to construct sidewalks is when a road is first constructed or when it undergoes major reconstruction. Impediments to sidewalk construction, both physical and political, become much greater on existing roadways.

4.2.1. As part of new development

When new development occurs along a street or highway, developers can be asked to construct sidewalks. On highways that include a graded area reserved for future sidewalk construction, the addition of a sidewalk may not be difficult physically.

Under this set of conditions, the greatest impediment is oversight on the part of regulators. This is especially a problem on state and county highway projects.

4.2.1.1. County and state highways

County and state engineers will usually require developers to reconstruct existing sidewalks as part of frontage improvements along the highway.

According to NJDOT, developers of commercial property would probably not object greatly if they were required to construct sidewalks along state or county highways. However, the current State Highway Access Management Code does not require developers to construct new sidewalks when land along state highways is developed. County engineers advise planning boards regarding which roadway improvements are needed for new development. The boards may not be aware that new development provides the opportunity to construct sidewalks. As a result, although state or county development approvals could easily include requirements to construct sidewalks, they often do not.

County planning boards and the NJDOT review staff usually assume that the municipal development approval process will require sidewalk construction. Municipal officials and approval boards, however, are reluctant to require improvements along state or county highways. This deference to the higher level of government by the municipality is understandable, since any municipal requirement can be overruled by the county or state.

As a result of the ambiguous responsibility for requiring improvements on county or state highways, sidewalks are frequently omitted from the plans for new development along county or state highways unless the developer seeks to have sidewalks or one of the approval authorities takes an assertive role in requiring pedestrian enhancements.

Discontinuous sidewalk on US Rt. 22 in Philipsburg, NJ *(VTC)*

4.2.1.2. Municipal streets

Ambiguity regarding approval authority is not an issue for developments fronting on municipal streets. Approval authorities usually operate under development ordinances requiring sidewalk construction, at least along arterial and collector roads. Planning boards and zoning boards of appeal may not require sidewalk construction for a variety of reasons, described below.

Applications for development of land are often submitted incrementally, especially in areas of New Jersey where land has been subject to subdivision for centuries and is often held in relatively small lots. The requirement to construct a sidewalk along the first

couple of lots along an existing street may be waived by the planning board because the short segments of sidewalk would not connect to a destination or existing sidewalk. When subsequent development proposals are submitted, the previously approved developments may have now become obstacles to the future construction of a continuous sidewalk system.

A second reason that municipal boards may waive sidewalk construction requirements is at the objection of adjoining property owners. Owners of developed land may oppose the precedent that would be created by sidewalk construction, fearing that they will eventually be required to also construct a sidewalk on their property as a local improvement.

Finally, planning board members may agree to waive a requirement to construct sidewalks along an existing road – especially a major collector road or arterial highway – because they believe that no one would walk along the roadway. Thus, ensuring that approval boards do require sidewalk construction as part of development approvals usually requires that the board or its professional advisers include strong advocates for pedestrians and for sidewalk construction.

4.2.2. By retrofitting an existing street

All professionals interviewed for this project agreed that constructing sidewalks along existing streets or roads is extremely difficult politically.

4.2.2.1. Sidewalks in front of existing residential property

Constructing new sidewalks is especially difficult in front of existing residential lots. Homeowners often perceive all land to the curb as private property, even if it includes public right-of-way, and many will object strenuously to sidewalk construction. This is especially the case when the border area of the road has become forested or where the property owner has provided improvements, such as landscaping.

The added buffer created by landscaping helps property owners feel separated from traffic on the adjoining roadway. Many property owners, especially homeowners, find the unimproved border area a “rural” value and resist the conversion of the roadway cross-section to that of a subdivision street.

Finally, many home owners resent the added maintenance responsibilities associated with having a sidewalk along the street – especially the responsibility of shoveling snow and spreading sand or salt to prevent icing. Some homeowners purposefully select homes that do not have a sidewalk so that they won’t have to worry about winter maintenance; these homeowners will strenuously object to the construction of a sidewalk in front of their property.

4.2.2.2. Sidewalks in front of agricultural properties

Agricultural property owners may also object to sidewalk construction on their frontage because of maintenance responsibilities and because of the expectation that sidewalk users will consider farm activity a nuisance. In Middletown Township, a farmer used the New Jersey Right to Farm Law to prevent the township from constructing a sidewalk at township expense along the farmer’s property. The township had proposed constructing the sidewalk to link residential areas of the township with an elementary school.

4.2.2.3. Sidewalks in front of commercial properties

Commercial property owners are less likely to object to sidewalk construction in front of their properties, especially if the sidewalks are to be constructed at public expense. Sidewalks provide additional access to businesses for both customers and employees.

Commercial property owners may object to sidewalk construction if it would conflict with commercial use of the right-of-way. A store owner may have gradually encroached onto the public right-of-way by expanding on-site parking, erecting signage or displaying items for sale to the motoring public. Sidewalk construction could also interfere with driveway operations, or it may occur in conjunction with curb construction designed to control vehicular access to the site. In these situations, the owner or tenant of the property might strongly object to the construction of sidewalks.

5.0 Sidewalk Management and Maintenance in New Jersey

5.1 Typical Life Span of Sidewalks in New Jersey

Engineers and public works officials interviewed for this report strongly recommended that concrete be used for sidewalk construction. The preference for concrete is based on its long service life – many sidewalk slabs in older cities remain in good condition even after 75 years of service. The principal problems associated with concrete sidewalks are:

- Poor initial construction – either poor compaction of the base or improper mixing, finishing or curing of the concrete. Poor initial construction will usually become apparent within the first two or three years following construction.
- Damage from motor vehicles – sidewalk segments that will be exposed to motor vehicle traffic need to be a minimum of six inches thick, as opposed to the standard four inch depth required to support foot traffic. Sidewalks subject to vehicular traffic should also be reinforced.
- Damage from street trees – see below.

Slate, granite and concrete block sidewalks are also considered to be durable materials. These options cost more than concrete and are not used as often, but in terms of life span they are considered equivalent to concrete. Slate sidewalks in Jersey City that were constructed in the middle of the 19th century remain in use and meet ADA accessibility criteria. Asphalt is not recommended because it lacks the durability of the other materials mentioned above and therefore requires more frequent maintenance and reconstruction.

5.2 Problems Associated with Tree Roots

Street trees have been proven to be a valuable asset in establishing community character and have been shown to provide substantial increased value to real estate, especially residential property. They are a critical component in many streetscapes that help to create a more inviting walking environment. Street trees also serve to mitigate extreme climatic conditions, lowering temperatures in summer and warming temperatures in winter. For these and a number of other reasons, street trees remain highly desirable. Many municipalities have organized shade tree commissions and ordinances to protect existing street trees and to plant new ones despite the resentment of some property owners.

5.2.1. Causes of sidewalk damage by street trees

The primary cause of tree inflicted damage to sidewalks is the inadequate space allotted for a tree to grow. Poor initial species selection also contributes to sidewalk damage. The problems created by street trees are worse in areas where both conditions are present.

5.2.2. Adequate room for trees and roots to grow

The best method to assure that street trees will thrive without damaging sidewalks is to provide them with an adequate amount of soil and space in which to grow. Conventional tree lawn setbacks of two to four feet are inadequate for that purpose; desirable setbacks for the tree lawn are from six to ten feet. Where this distance is provided most large tree species can secure an adequate amount of moisture, nutrients and root stabilization without lifting the sidewalk or curb.

Both of these oak trees are of similar size. The tree to the left was planted in a typical 2.5 foot tree lawn. The tree on the right is in a tree lawn which is greater than 12 feet wide and is of no threat to the sidewalk or curb. *(Both images Andrew J. Besold)*

Where tree lawn space is limited, the importance of tree selection becomes much greater. In addition, various types of planter boxes or tree wells can be used to maximize available soil and to control root growth. However, with this type of arrangement, most trees will live for fewer years than if they were grown in a more open setting.

5.2.3. Selection of appropriate street trees

Many municipalities now include a list of acceptable street trees in the municipal development ordinance, or make reference to a list that developers must use and which is maintained administratively. Some municipalities require that the shade tree commission advise the planning and zoning boards regarding appropriate street tree selection and design.

By selecting appropriate species for the environment (climate, soil, ground area, utility location) in which a street tree will live, many future problems can be avoided or reduced.

5.2.4. Avoiding damage to street trees

Street trees are living organisms and can be seriously harmed by disease or injury. The roots of street trees can be easily damaged by any type of construction that disturbs the surrounding soils. Sidewalk replacement, curb replacement, roadway reconstruction and utility construction (water, sewer, power and telecommunications) can all result in damage to the root structure that a tree depends on to survive

The large stabilization or “buttress” roots of a tree (those immediately adjacent to the trunk) are essential in maintaining the structural stability of a tree and are critical in a tree’s ability to resist lateral forces such as those from winds and possible impacts from cars. Street trees that blow over in storms have frequently had their buttress roots either pruned or injured. It has even been known for trees to fall over in a light breeze immediately after buttress root pruning. The pruning of buttress roots is often done by

work crews during sidewalk installation or replacement. This not only creates a liability and safety hazard but can also lift and damage a sidewalk when the tree falls.

5.2.4.1. Require urban forestry review for street and sidewalk construction

Urban foresters have developed a number of practices to protect a tree's root structure. The first step a community can take to protect its street trees is to establish a construction review process that requires all construction activities around street trees to be reviewed and approved by a qualified urban forester who has been trained in how street trees can be protected.

Anyone who substantially injures or kills a street tree as a result of improper construction activities should be required to replace the street tree. Some street tree ordinances require the replacement of an equivalent amount of tree basal area, requiring that several young street trees be planted to mitigate the harm caused by even unavoidable damage or removal of a mature tree.

Techniques for protecting trees during construction include:

- Preventing heavy equipment from operating on and thus compacting the soil within the drip line (all area under the branches) of the tree
- Use hand tools (shovels) to excavate around all tree roots
- Backfill around trees with top soil and not local construction debris or fill
- Elevating sidewalks or roadways over raised tree roots
- Curving curbs into the street to accommodate root growth
- Narrowing roadways to increase the amount of soil available
- Curving sidewalks onto the abutting lot in a sidewalk easement

A small section of sidewalk has been narrowed to accommodate a large maple tree. Highland Park, NJ. *(Andrew J. Besold)*

Where curb extensions are proposed as part of a street reconstruction project to better manage on-street parking and enhance pedestrian crossings, consideration should be given to also constructing curb extensions around large trees in order to increase the area available for tree root growth.

The minimum sidewalk width proposed by the ADA public rights-of-way access guidelines is four feet. However, the underlying absolute minimum width that allows passage of a wheel chair, 36", can be allowed for an isolated obstruction such as a tree. Where a front yard area is available on adjoining property, a

sidewalk easement can be secured from the property owner and the sidewalk curved around the tree and its roots.

Urban foresters also recognize that conditions or the tree species sometimes makes tree preservation an inappropriate objective and can instead recommend tree replacement strategy. This is especially appropriate when a tree:

- Already demonstrates that it has been weakened by disease or past injury
- Is a species that is easily damaged or is short lived and will need to be replaced in the near future anyway
- Is growing underneath utility lines and has been badly damaged by past utility pruning practices

5.2.5. Shade Tree Commission reviews

Once a shade tree ordinance has been approved in a municipality, the Shade Tree Commission (or Park Commission) may require that all work associated with street trees be performed under its direction, either by trained technicians that it employs or under the supervision of a trained arborist or urban forester. The NJDEP Community Forestry Program highly recommends that the supervising arborist or urban forester be a New Jersey Certified Tree Expert. Pending New Jersey Senate Bill 1199 sponsored Sen. Robert W. Singer, would require urban foresters and supervising arborists to be New Jersey licensed tree experts and operational arborists to be a New Jersey licensed tree care operators.

The City of Woodbury has included shade tree duties under its Parks Division creating a Division of Parks, Recreation & Community Forestry. Woodbury has also assigned the responsibility for managing sidewalk repairs and reconstruction to the Parks Division rather than the Building Department because most sidewalk projects involve street trees in some manner. The city can assure that sidewalk construction work protects trees by requiring that all sidewalk work is reviewed and approved by the Parks Division.

Similarly, the City of Jersey City requires all street construction, including sidewalk repairs, to be reviewed by the city's Division of Parks and Forestry, and that all work that directly impacts the roots of street trees must be performed by trained city employees or contractors hired by the Division. Jersey City also has a continuing street tree planting program to replace injured or diseased trees and to increase the number of street trees on city streets.

5.3 Sidewalk Reconstruction on Municipal Streets

Sidewalk repairs and reconstruction occurs through two processes – in association with major street reconstruction and as a result of housing inspections associated with the need to secure a Certificate of Occupancy.

5.3.1. Sidewalk reconstruction in association with pavement management programs

Several of the municipalities that were interviewed have established a pavement management system or similar program that assures that the pavement structure of all streets is routinely inspected and that the street's pavement is periodically resurfaced or

reconstructed. Some municipalities with pavement programs seek to cycle through all streets on a periodic basis so that the pavement structure and sub-base will not start to substantially deteriorate. Both Princeton Borough and Lawrence Township established pavement management and street reconstruction programs in the mid-1980s and are beginning to start the second round of repairs, consistent with the general expectation that street pavements should have a life of approximately 20 years.

Municipalities with such management systems will also inspect a street's sidewalks and curbs at the time the plans for the street resurfacing are being developed. The municipality will then develop a program to provide for replacement or repair of damaged segments while the street is being reconstructed.

5.3.2. Sidewalk repair required for Certificate of Occupancy (CO)

All of the municipalities that were interviewed require that a new Certificate of Occupancy (CO) be issued whenever a property is sold; many municipalities also require issuance of a new CO whenever a rental property is occupied by a new tenant.

Before a CO is issued, the building is inspected by a municipal inspector to assure that there are no safety hazards and that the building is being properly maintained. One feature of a typical housing inspection will include an evaluation of the exterior walkways on the property and the sidewalk and curb in front of the property. If a sidewalk is found to be damaged, the current property owner will be required to make necessary repairs before the property can be sold.

Most sidewalk repairs initiated by individual property owners in New Jersey result from these housing inspections. Because the work is being performed on an incremental basis, it becomes the property owner's responsibility to secure a qualified contractor to make the needed repairs. Some municipalities such as Woodbury and Jersey City require that proposed work surrounding street trees be conducted by contractors to work around street trees; as discussed above, Jersey City requires that all work directly affecting the roots of street trees be performed by employees of the Parks Department or contractors retained by the Parks Department to perform such work.

In municipalities that do not tightly control the work of sidewalk contractors, street trees are frequently severely damaged by inappropriate root trimming, in particular the destruction of the stabilization roots that a tree needs to secure it against high winds. This damage to street trees is not surprising, since most repairs that property owners are required to make involve damage caused by street trees. As reported by the official in Woodbury, many property owners would rather remove the street tree than take appropriate measures to repair the sidewalk in a responsible fashion that would protect the tree.

5.3.3. Sidewalk damage caused by street trees

Street trees are a municipal responsibility if the tree is located within the public right-of-way. As a result, some municipalities, such as Middletown, consider any damage created by street trees to the public sidewalk to be a municipal responsibility to correct. However, in most municipalities, abutting property owners are still held responsible for repairing damage to sidewalks caused by street tree roots, even though both the tree and the sidewalks are municipal facilities.

5.4 Sidewalk Reconstruction on County and State Highways

5.4.1. State highways

The state maintains a sophisticated pavement management system that identifies priority pavement repair work. Roadway repairs fall into three broad categories – pavement repair (simple milling and paving of the top layer of pavement), resurfacing (a more complex paving operation) and roadway reconstruction.

For all work:

- A field inspection is conducted to identify conditions in the roadway corridor and to determine if other work activities are required
- A set of project plans is designed and the project is programmed
- Informational meetings are held with the municipalities affected and with abutting property owners and tenants
- A maintenance of traffic program is developed

Field inspections and the municipal outreach process help identify additional work tasks that should be added to a roadway repair project. When roads are reconstructed, NJDOT will identify sections of curbs and sidewalks that require repairs and include those repairs in the project scope and reconstruction contract. For example, during the outreach effort for a roadway resurfacing project on US 130 in East Windsor Township, NJDOT was requested, and agreed, to complete missing segments of sidewalk along the highway. Similarly, field inspections may identify that ADA compliance may trigger the need to complete a missing segment of sidewalk leading to a curb ramp or to repair a deteriorated section.

Sidewalk improvements as part of a state highway project in Netcong, NJ *(VTC)*

Substantial sidewalk or curb reconstruction is not typically been undertaken by NJDOT as an independent project. Instead, the Department assumes that abutting property owners are responsible for routine maintenance. The state also relies on municipal inspections to identify when property owners must make repairs to damaged sidewalks. More recently, however, the Department has made an effort to identify independent sidewalk and curb projects that will improve walkability along state highways.

5.4.2. County highways

Policies of counties appear to be similar to those of NJDOT when it comes to repairing sidewalks along county highways. Ordinarily counties do not conduct sidewalk or curb repairs or reconstruction as independent projects or as isolated spot improvements but instead assume that repairs will be made by abutting property owners.

If a road is to be substantially reconstructed, the county may agree to construct sidewalks or curbs as part of the project.

On reconstruction or resurfacing projects, counties will construct curb ramps or repair existing ramps. If adjoining sidewalks must be adjusted, repaired or reconstructed as part of curb ramp construction, the county will include that activity in the contracted work.

5.5 Current Practice Concerning Snow and Ice

All persons who were interviewed for this report indicated that routine sidewalk maintenance, including responsibility for snow and ice removal, rests with the abutting property owner.

Some cities and boroughs do operate programs to remove snow following heavy snow storms from downtown streets and similar areas that have inadequate space to store snow. However, the initial responsibility to clear the snow rests with property owners.

5.5.1. Problems at intersections

Street intersections create a major problem for pedestrian circulation during snow storms. The geometry of intersections produce additional pavement that must be cleared from streets and reduce the area in which to store snow. As a result, higher mounds of snow frequently develop at street intersections, blocking crosswalks and reducing intersection sight distance. Curb ramps are rarely shoveled out, severely restricting mobility for disabled persons and making street crossings hazardous for all pedestrians.

Piled snow on the sidewalk blocks a child's path. *(VTC)*

Abutting property owners often fail to remove snow from this area, and usually ordinances requiring property owners to shovel snow do not address the crosswalk area. Corner lot property owners are already burdened with the responsibility for clearing two segments of sidewalk, therefore it is not surprising that they are not eager to clear the curb ramps. Even where a property owner has sought to address the problem, clean-up operations of snow plows may re-block the crosswalk. Finally, since the snow plowed from streets frequently includes deicing materials and substantial amounts of melting

snow, the mounds of snow in crosswalk areas and curb ramps is usually heavier than new fallen snow and frequently hardens into an ice pack.

Melting snow and ice creates an additional problem for pedestrians at intersections in winter. Often storm drains are blocked by the mounds of plowed snow resulting in the creation of ponds in the crosswalk area.

An elderly woman is forced to walk in the road and through deep snow at the intersection of US Rt. 1 and Milltown Rd. in North Brunswick, NJ *(Andrew J. Besold)*

5.5.2. Special Improvement Districts

Special Improvement Districts (SIDs) are areas such as a downtown that have been designated by the municipal government for special assessments to fund activities that promote economic activity. An SID is managed by a District Management Corporation (DMC), which is in turn supervised by the municipal government.

A DMC can construct, operate and maintain local improvements within a SID. In particular, a DMC can hire staff to clean litter from the streets, maintain planters and other landscaping and clear snow from sidewalks in the district. The DMC can also periodically repair or reconstruct improvements within the District. The annual operating and capital expenses of a DMC are paid for by special assessments against properties located within the District.

An interview was conducted with a staff member of the Trenton Downtown Corporation, the DMC that manages the SID in downtown Trenton. The organization provides routine maintenance throughout the downtown including litter clean-up. In winter the DMC assures that a 30” wide plowed pedestrian route is maintained on sidewalks during snow events. DMC employees also clear snow and ice from curb ramps at intersections, and apply deicing solutions on the sidewalks as needed.

The Trenton Downtown Corporation requires tenants and property owners in the district to shovel the remaining snow on the sidewalk to the curb within 24 hours following the end of a snow event, as required by city ordinance. Its staff works with tenants or property owners to assure compliance with that requirement.

5.5.3. When the abutting property is not privately owned

Roads that abut publicly owned property pose a special problem for sidewalk maintenance. When the abutting property is an institution or facility that has other snow removal responsibilities such as a park, a school or health facility, a crew usually exists to take care of the sidewalk frontage. For example, Woodbury removes snow from sidewalks and pathways adjacent to city parks, municipal buildings and municipal parking lots.

However, sidewalks adjacent to rivers or located on bridges crossing rivers, freeways or railroads do not have a defined abutter. In these locations, the agency having jurisdiction for the roadway is ultimately responsible for assuring that the sidewalk is reasonably maintained in winter.

This task has proven to be especially difficult for the NJDOT, which is responsible for sidewalks in interchange areas of interstates and also for sidewalks on state highway bridges. The NJDOT has accepted its responsibility for this maintenance task, and is currently experimenting with different ways to establish an effective program to assure that sidewalks are cleared during snow events.

Similar problems confront counties on bridges carrying county highways over obstacles such as rivers or highways.

Municipalities have public works departments that can be used to clear these types of sidewalks on local streets as part of the wrap-up operations following a snow storm. Because municipalities are closer to the problem, they are not as challenged as state and county maintenance staffs. However, all roadway agencies recognize that public works crews are usually overextended following a snow event.

5.6 National Practice Concerning Sidewalk Maintenance and Repair

Research into national practice concerning sidewalk maintenance and repair included the review of ordinances and regulations in cities and states across the country, a query of members of the Association of Pedestrian and Bicycle Professionals (APBP) and attendance at a sidewalk maintenance course offered by the University of Wisconsin.

This investigation indicated that sidewalk maintenance practices in New Jersey reflect practices followed in other states.

- Property owners in northern states are responsible for keeping sidewalks passable during snow events.
- Abutting property owners are held responsible for isolated repairs or reconstruction of sidewalks, when needed.
- Many states now consider street trees to be public property and therefore place the jurisdiction owning the street with some share of the responsibility for repairing sidewalk damage but also provide the jurisdiction with the authority to protect street trees from damage.
- Many cities or other governmental entities assume responsibility for clearing crosswalks and curb ramps at intersection and for constructing and repairing curb ramps

Specifically, the city codes of Portland, Oregon and Seattle, Washington each state that sidewalk maintenance and repair are the responsibility of the abutting property owner. Furthermore, in each city it is the responsibility of the abutting property owner to improve a street to meet city street standards, including sidewalk construction. Until a street has been completely improved to city standards, theoretically the street remains the maintenance responsibility of the abutting property owners – not just the sidewalks but the entire street right-of-way.

6.0 Summary of Impediments to Effective Sidewalk Management

For sidewalks to be effectively maintained and properly repaired, responsibility for sidewalk management activities needs to be defined. Most of the problems involving sidewalk management result from ambiguity over responsibility or the lack of a responsible party. Specific impediments are summarized below:

- Current statutes allow but do not require the county and state to construct and maintain sidewalks and curbs on their respective highways.
- In cases where the right-of-way is not municipally owned, local governments may believe that they lack the authority to manage state and county owned sidewalk corridors. As a result, a no-man's land has been created in which no governmental agency takes responsibility.
- Municipalities lack the financial resources to maintain sidewalks on county and state highways.
- State and county maintenance staffs are not well-equipped to perform winter maintenance for sidewalks in areas which lack an abutting property owner to clear the snow and control icing conditions.
- Agencies responsible for plowing snow are not responsible for clearing crosswalks and curb ramps and therefore have no incentive to instruct their plow operators to avoid plowing snow into these areas at intersections.
- Corner lot property owners, who must maintain two sidewalk legs, may not wish to be burdened with clearing curb ramps and crosswalk areas at the intersection.
- Repairs to sidewalks located on county or state highways may not be subject to inspection if the municipality assumes that the county or state will inspect.
- Property owners, sidewalk contractors and utility contractors often are unaware of proper methods of protecting street trees.
- Street and curb construction contractors are often similarly unaware of methods that can be used to protect street trees during roadway resurfacing or street reconstruction projects.

7.0 Funding Sidewalk Construction, Reconstruction and Maintenance

This section of the report discusses how sidewalk construction, reconstruction and maintenance in New Jersey are financed.

7.1 Funding Sidewalks When Land Is Developed

As discussed previously, developers and redevelopers of property are responsible for constructing new streets and roads and improving existing streets to municipal, county or state standards. This responsibility includes the construction or reconstruction of sidewalks. As a result, developers are responsible for funding most new sidewalk construction, although the costs are passed on to future tenants or owners.

7.2 Funding Sidewalk Construction When Roads Are Reconstructed

7.2.1. Funding sidewalks on county and state highways

New sidewalks on state highways that are scheduled for substantial reconstruction will usually be constructed at state expense; provided that the need for the sidewalks was identified during the scoping process and that the construction of the sidewalks was included in the contract drawings. FHWA authorizes the construction of new sidewalks as an incidental element of roadway reconstruction eligible for reimbursement like any other project expense.

Many counties will also incorporate new sidewalks into roadway contract drawings if the need for the sidewalks had been identified during the project planning process. Counties usually look to municipalities to determine whether sidewalks should be constructed. If the cost of the county project is eligible for federal reimbursement, the FHWA will consider the sidewalk construction to be an incidental project cost.

Both counties and the state will construct sidewalks as part of a highway widening project that takes existing sidewalk. Again, it is critical to assure that the relocation of the sidewalk be included in the project's initial scope and that the design for the sidewalk be included in the contract drawings.

When state highways are reconstructed or resurfaced but the project does not extend beyond the limits of the existing curbs, sidewalk improvements are not typically included. The assumption remains that sidewalk repair and reconstruction is the responsibility of adjacent property owners.

When NJDOT is preparing for a resurfacing or reconstruction project, engineers usually identify any curbs or sidewalks that require repair or reconstruction. If included in the project scope, NJDOT will cover the reconstruction costs. Curbs or sidewalks are especially likely to be repaired or reconstructed as part of a resurfacing project that also requires the construction of curb ramps at intersections or other ADA compliance items.

Again, county practice mirrors state practice, but counties are less likely to identify elements outside of the roadway that require repair. Counties do install curb ramps at intersections as part of highway resurfacing projects. Sidewalk repairs associated with curb ramp construction are included in the county project as public expenses.

NJDOT has participated financially in streetscape improvement projects that affect state highways that pass through commercial centers, although the cost for such improvements is usually programmed separately through various NJDOT Local Aid programs (see below).

Some counties fund streetscape or sidewalk improvements on their own highways, especially if the road serves other county projects. For example, the Mercer County Improvement Authority has funded streetscape improvements along highways located in the vicinity of the County's administration building and other public use facilities such as the Waterfront Park and Sovereign Bank Arena.

7.2.2. Municipally-funded Sidewalk Construction

Municipal officials who were interviewed for this project reported a variety of methods for funding sidewalk repairs as part of road reconstruction: no one consistent pattern was identified.

7.2.2.1. 100% municipal financing of new sidewalks

Several municipalities have adopted a policy that the municipality will pay for the cost of constructing new sidewalks if sidewalks are missing along a street that is programmed for reconstruction.

For example, Lawrence Township has adopted a policy of providing public financing for missing sidewalk construction as part of its street reconstruction program. The township maintains an inventory of its roadways and reconstructs or resurfaces based on an objective pavement evaluation system. If it finds that a street scheduled for resurfacing lacks sidewalks, the township will seek additional NJDOT Local Aid funding to pay for the cost of sidewalk construction along the street. However, the township has also accepted this cost as a municipal responsibility and will use its capital funds for this purpose.

Middletown Township has established a special municipal sidewalk fund that it uses to pay for the cost of needed sidewalks along arterial and collector roads. The township focuses the expenditure of these funds on sidewalks serving school routes.

7.2.2.2. Local Aid financing for sidewalk construction

All of the municipal officials who were interviewed have sought Local Aid or Transportation Enhancement funding to pay for the cost of new sidewalks along existing arterial highways or collector streets. The Safe Streets to School funding program under Local Aid was also mentioned by some of the officials interviewed.

Local Aid financing is also used for street reconstruction, sidewalk, and curb repairs are often included in street projects to the same extent that they are included in county and state projects.

7.2.2.3. Municipality shares in the cost of sidewalk construction and reconstruction

Princeton Borough has adopted a policy that it will share in 50% of the cost of constructing or reconstructing sidewalks, either as part of a street reconstruction project or as an independent project set up to construct sidewalks along a street that lacks them.

7.2.2.4. Assessment of abutting property owners

The most common procedure used by municipalities to pay for new sidewalks or the repair or reconstruction of existing curb and sidewalk is to assess the abutting property owners for all or a portion of the costs as outlined in Chapter 65 of Title 40. NJSA 40:65-1 also authorizes municipalities to assess property owners for the cost of constructing or reconstructing sidewalks along county highways using this process:

1. Curbs and sidewalks are inspected as part of the process of developing the resurfacing or reconstruction plans for the abutting roadway.
2. Property owners are notified of the need to make the repairs and are provided with an estimate of the costs that they will be charged if the municipality performs the work.
3. Property owners are given a period of time within which they can elect to do the work themselves or hire a contractor; a municipality must provide the property owner with at least 30 days notice.
4. When the municipality is ready to reconstruct the street, its contractor will perform the required construction if the property owner has not done so.
5. Once the project has been completed, the costs are calculated and assigned based on street frontage.
6. Property owners are then assessed for the cost of the construction. The actual assessment usually does not occur until approximately a year following the completion of the project.

Municipalities have adopted a number of variations to this process. Princeton Borough uses municipal funds to cover half of the construction costs. The borough also pays for the cost of street reconstruction with a ten year municipal bond – homeowners may elect to pay for their assessments over the life of the bond and are charged the same interest rate that the borough pays on the bond. According to the borough's engineer, most property owners elect this option because of the favorable payment schedule and greater efficiency. Other municipalities such as Millburn elect to assess property owners for the full cost of the improvement following the apportionment of the costs.

7.2.3. Other States

An APBP query indicated that most other states follow procedures similar to those followed in New Jersey. Abutting property owners are required to maintain sidewalks at their own expense and provide repairs when required in advance of programmed street reconstruction.

Many states and cities report that they now routinely construct sidewalks where warranted when new streets are constructed or when roadway resurfacing or reconstruction is programmed. In urban and suburban areas, New York State DOT constructs sidewalks only on one side of local or collector streets but on both sides of all arterials except where pedestrians are prohibited.

The City of Charlotte has recently adopted a policy providing for the construction of sidewalks on both sides of all thoroughfares (arterial highways) and on at least one side of all collector and local streets. The city assures that sidewalks are constructed or reconstructed as part of major street reconstruction projects, and coordinates with the

State of North Carolina to assure that sidewalks are constructed on state highways in the city, either at city, state or shared expense.

The city has also established a priority list of locations where sidewalks are needed within the city and has established an annual sidewalk construction program to pay for new sidewalk construction along the highest priority sites. The city also has a neighborhood initiated sidewalk construction process by which neighborhoods can petition the city for the right to construct sidewalks at the property owner's expense. This process can be used if the neighbors want the sidewalk constructed sooner than would occur based on the city's priority ranking system.

Many mid-western cities and townships have agreed to share the cost of sidewalk reconstruction in conjunction with street reconstruction projects. Typical arrangements provide for the municipality to pay for all of the cost of reconstructing curb ramps and associated sidewalk repairs, all or a portion of the costs of repairing damage to sidewalks and curbs resulting from street tree damage, and all of the cost incurred repairing sidewalks along one side of a corner property -- usually the property owner pays for the shorter front yard frontage on which the building fronts and the city pays for the longer side yard frontage.

7.3 Funding Independent Sidewalk Construction Projects

7.3.1. NJDOT Local Aid funding

NJDOT has recently funded a number of sidewalk-only construction projects along state highways. These projects have been initiated by the Bicycle and Pedestrian Program Office, various Local Aid programs, or as a result of outreach that was conducted as a result of a routine roadway maintenance project.

NJDOT also provides funding to municipalities for sidewalk construction and streetscape enhancement projects, including projects to remove accessibility barriers.

NJDOT funding programs that municipalities can use to finance sidewalk construction include Safe Routes to School, Communities of Place and Transportation Enhancements.

Municipalities can also prepare project need reports to initiate projects designed to construct missing sections of sidewalks along state highways, reconstruct curbs and sidewalks that are deteriorated along a state highway or to install needed curb ramps at intersections along a state highway.

7.3.2. Dedicated municipal sidewalk fund

The Township of Middletown has created a dedicated municipal sidewalk fund. Developers are permitted to make contributions to the fund in lieu of constructing sidewalks along new residential access streets, especially cul-de-sacs. Municipal officials in Middletown want to maintain the rural appearance of residential streets in the township that are constructed without sidewalks or curbs, and they have found that pedestrians and cars can comfortably co-exist on those low volume local streets.

The township instead believes that separation of pedestrians is most important along arterial and major collector streets. It therefore uses its sidewalk funds to pay for new sidewalks along those higher volume streets, including county and state highways, and to

fund mid-block connecting walkways that can expand the pedestrian network in the township.

7.4 Funding Sidewalk Reconstruction

Funding for the reconstruction of sidewalks as part of street reconstruction projects was discussed above.

When portions of sidewalk are found to require repair or reconstruction and there is no programmed street improvement scheduled, the responsibility for constructing repairs usually rests with the abutting property owner. The need for repairs can result from a housing inspection required to secure a Certificate of Occupancy, a building permit inspection conducted in association with construction on the site, a request for a driveway permit or as a result of citizen complaints or injury reports.

Furthermore, municipalities are empowered to initiate any needed maintenance repairs that have been identified and then assess the cost of the repairs to the property owner.

Property owners may petition a municipality to initiate a sidewalk reconstruction project and may request that the cost be borne by the municipality or that it be bond-funded with repayment shared by the adjacent property owners and the municipality. This type of petition would most likely occur if or when a block or more of sidewalk has experienced deterioration, perhaps because of poor initial construction techniques or because of inappropriate street tree selection. Individual municipalities have differing procedures for responding to petition requests for maintenance improvements. The state statute governing sidewalk repair and construction provides the municipality governing body with substantial flexibility in determining how to fund such an improvement.

7.5 Funding Sidewalk Maintenance

Interviews with municipal officials indicated that all municipalities expect abutting property owners to maintain sidewalks once they have been constructed.

If an abutting property owner fails to maintain a sidewalk, NJSA 40:65-12 authorizes the municipality to perform the needed work, to assess the costs incurred plus interest, and to fine the property owner. In the event of snow removal, the municipality may act within 12 hours of daylight following the snowfall without providing notice. In the case of clearing vegetation or other debris from a sidewalk, the abutting property owner must be provided three days notice prior to the municipality performing the work.

In interviews, representatives of municipalities indicated that governing bodies are very reluctant to take that step unless the problem represents a safety hazard, a continuing nuisance that has not been fixed despite repeated notices or if it severely impacts an important public resource – for example a sidewalk that children regularly use to walk to school.

7.5.1. Practice in other states

As discussed previously, a national request for information found that in most states abutting property owners are required to maintain sidewalks at their own expense.

Like New Jersey, cities and towns in other states are also given the right to inspect sidewalks, perform needed maintenance that has not been performed as required by ordinance or statute, and then assess the property owner for the expense.

7.6 Not a Special Improvement

It is important to recognize that NJSA 40:56 – the statute authorizing municipalities to assess property owners for the cost of constructing or reconstructing sidewalks – is different from the statutes that authorize municipalities to create special benefit assessment districts. The responsibility for constructing and maintaining sidewalks in New Jersey rests with the abutting property owners, although municipalities, counties and the state are all authorized to pay for all or a portion of such costs.

When sidewalk improvements have been made and are to be assessed to the abutting property owner, the assessment is made not based on the benefit to the property owner but rather the proportional frontage of a property along the subject street. This assessment reflects the statutory responsibility a property owner has to maintain the pedestrian way on which the property abuts.

This approach to funding sidewalk management dates back to the traditional method by which roadway improvements were funded. Under English law, the maintenance of the public way in front of one's property was the responsibility of the property owner. As a result, no benefit to the property owner has to be shown – instead, it is the property owner's responsibility to perform the sidewalk management tasks.

8.0 Sidewalk Liability in New Jersey

Liability for injuries suffered on sidewalks is frequently cited as an important reason why some property owners are reluctant to have sidewalks constructed in front of their properties. In order to better understand the nature of this liability in New Jersey, a legal analysis of sidewalk liability was undertaken by Janine Bauer, Esq. The findings of that analysis are summarized below, and the full paper is presented as an appendix to the report.

Sidewalk liability is determined by common law as it pertains to abutting properties and by the Torts Claim Act (NJSA 59:1-1 et.seq.) for public entities. The issue of tort liability has been the topic of heated legal activity over the past century in New Jersey. The question of who should be held liable for damages as the result of an injury sustained on a defective sidewalk has been no exception to this activity. Not surprisingly, since common law is subject to judicial modification, the exposure to liability for injuries suffered on sidewalks has evolved in New Jersey.

8.1 Historical Tradition of Sidewalk Immunity

Under ancient English common law, persons traveled on public roads and sidewalks at their own risk.

- Abutting property owners were assumed to be immune from liability because the repair of public highways, including sidewalks, was the responsibility of the public entity having jurisdiction – initially the local parish.
- Public entities having jurisdiction for those highways were also immune because of the broad principal of "sovereign immunity", which absolutely absolved a public entity from any liability for dangerous conditions on its property unless the hazard was created by its own "active wrongdoing" or "positive misfeasance". [11]

Through much of the 20th century abutting property owners in New Jersey were considered to be immune from damages caused by the normal deterioration of a sidewalk or for injuries resulting from a failure to clear ice or snow, even if a municipal ordinance required such action. Sidewalk repair was instead assumed to be the responsibility of the public entity having jurisdiction over the adjoining roadway.

For an abutting property owner to be held liable for injuries, it was necessary to show that the property owner had created the dangerous condition as a result of negligent construction or repairs or by creating a nuisance condition that resulted in injury. It was also necessary to show that the resulting condition was more dangerous than the condition that was being corrected. For example, a property owner would not be liable for a failure to shovel the snow; but if in shoveling the snow the property owner blocked the flow of melting water creating an icy condition on the sidewalk, the property owner could be held responsible. But again, it would be necessary to document that the icy condition was the result of the property owner's negligent activity and was more dangerous than the conditions that had previously existed.

[11] This discussion is drawn from Angela Norris & George Norris v. Borough of Leonia (A-30-98)

8.2 Current Status of Sidewalk Liability Law

As indicated, the findings concerning sidewalk liability prior to the 1970's were largely based on a long common law tradition. The basic understanding was that sidewalks, once constructed, were part of the public right-of-way and hence their repair was a public responsibility. As a result, abutting property owners could not be held responsible.

However, public entities enjoyed the protection of sovereign immunity. As a result, the use of sidewalks was at the risk of the user.

As noted by the New Jersey Supreme Court, common law immunities are mutable even when they have been incorporated into statutory enactments. The courts also recognized that the common law precedents could be clarified by statutes, and at times seemed to invite the legislature to provide clarification regarding sidewalk liability.

Since 1970 a number of changes have occurred in sidewalk liability law, both as a result of statutory changes and legal precedents. These changes have affected different parties differently. The following section describes the current status affecting private abutting property owners and public entities either as abutting owners or as the entities responsible for the street and sidewalk.

8.2.1. Public entities

In 1972 the Legislature passed the Tort Claims Act (NJSA 59:1-1 et seq.) to provide a statutory set of rules for the traditional doctrine of sovereign immunity, which the legislature felt could result in unfair and inequitable results if applied strictly.

The Tort Claims Act provides broad immunity for public entities and their employees when they are conducting governmental activities intended to serve the public good. However, a public entity may be found liable for injury caused by the condition of its property if the plaintiff can establish that:

- The property was in dangerous condition at the time of the injury
- The injury was proximately caused by the dangerous condition
- The dangerous condition created a reasonably foreseeable risk of the kind of injury which was incurred and that:
  - A negligent or wrongful act or omission of an employee created the dangerous condition, or;
  - The public entity had actual or constructive notice of the dangerous condition a sufficient time prior to the injury to have taken measures to protect against the dangerous condition

The law proceeds to provide statutory standards concerning how these rules should be interpreted. According to Ms. Bauer, this statute is designed to protect a municipality against any claims until it has had notice of and a reasonable opportunity to repair or remedy any dangerous or defective conditions.

The result of the previous application of the doctrine of sovereign immunity and the structure of the current statutory system set up by the Tort Claims Act both make it difficult to hold a public entity liable for damages resulting from an unsafe condition on a sidewalk or other piece of public property.

8.2.2. Private abutting property owners

Courts in New Jersey have been troubled by the difficulty determining responsibly for injuries or damages sustained as a result of poorly maintained sidewalks. As a result, in the absence of a statutory process assigning liability for damages sustained on a sidewalk, the courts have sought to assign liability onto abutting property owners.

8.2.2.1. Commercial properties

Some members of the Supreme Court in their dissents on sidewalk cases had expressed the opinion that it was unfair that a property owner might be aware of a dangerous condition on the adjoining public sidewalk but take no action to repair the condition. Had the same facts applied within a store or business, there would be no question that the property owner was liable.

In 1981, in *Stewart v. 104 Wallace St., Inc* the Supreme Court accepted the argument that commercial property owners owed the public and in particular their customers a special duty to assure that the sidewalks in front of their establishments were in good condition.[12]

Much litigation has occurred since 1981 to refine the Stewart decision in order to define what exactly is and is not a commercial use. In general, to be considered a commercial use for the purposes of sidewalk liability it must be shown that the owner of the property is conducting an activity that invites non-related people to use the sidewalk in front of the property. For example:

- An apartment building that rents units to the general public is a commercial property; a property owner who leases apartment units in his or her residence to family members is not a commercial use.
- The owner of a vacant parcel of land is not a commercial use for the purposes of sidewalk liability, even though the property is commercially zoned and is owned by a commercial entity.

8.2.2.2. Charitable organizations

The exposure of charities to liability is controlled in New Jersey by the Charitable Immunity Statute (NJSA 2A:53A-7 though 11). That statute restored immunity to charitable institutions, employees and volunteers, etc from damages that are suffered by any person who is served by the charity and is a beneficiary, to whatever degree, of the works of the charity.

Charitable organizations however are liable just like any other property owner for injuries suffered as a result of the organization's negligence or its employee's negligence if the injured party is not a beneficiary. In particular, if the charity operates a profit-making

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[12] It is interesting to note that the Supreme Court, in reaching its decision in Stewart, stated that the decision would "provide a remedy to many innocent plaintiffs for injuries caused by improper maintenance of sidewalks." As this statement indicates, the court chose to make commercial property owners responsible for injuries because the Tort Claims Act and common law had made it impossible to hold public entities responsible for injuries resulting from public sidewalk deterioration. Since courts felt that they could not hold pubic entities responsible for the maintenance of public sidewalks, in the interest of fairness they looked for some other party to which they could assign blame.

enterprise – for example, a day care center – and the injured party is a customer, the organization may be treated as a commercial property owner.

8.2.2.3. Residential properties

There has been no basic change to the common law for residential properties, although injured parties continue to test the courts. In the Stewart decision the court did note "that the law of sidewalk liability is an appropriate subject for reconsideration by the Legislature."

As a result, the owner or occupant of a residential property is not responsible for defects in an abutting public sidewalk caused by the elements or by wear and tear. On the other hand, if the defect in the sidewalk resulted from negligent construction or repair by the owner, they may be held liable.

Similarly, a residential property owner or occupant is not liable for damages resulting from a failure to clear ice or snow from the sidewalk in front of the property, even if the municipality has a snow removal ordinance. However, if the hazardous condition was aggravated by the action of the owner or occupant when clearing the sidewalk of snow or ice, the owner (or occupant) may be held liable.

8.2.3. Damage caused by tree roots

As discussed previously, tree roots can cause extensive damage to sidewalks, creating hazardous conditions.

The New Jersey Shade Tree and Community Forestry Assistance Act enacted December 5, 1996 (P.L.1996, c.135) gives municipal and county shade tree commissions and its employees and volunteers broad grant of statutory immunity from property damage, injuries or deaths resulting from trees or shrubs. That immunity, however, does not extend to private parties, who remain liable to the extent that they would be liable if there were no municipal or county shade tree program. Clearly this section indicates that a private person can be held liable for damages resulting from a tree or shrub that is located on private property where the owner has control over the plants.

However, the shade tree commission laws give these commissions complete control over the maintenance of trees located within the public right-of-way, including most trees that would impact sidewalks. As a result, a property owner who identifies that a sidewalk has been damaged by the roots of a shade tree can only notify the shade tree commission of the defect and seek guidance regarding how to repair the sidewalk.

The Stewart decision may require the owner of abutting commercial properties to notify the shade tree commission and apply for a permit to repair the damaged sidewalk.

8.3 Ownership of Sidewalks

The Tort Claims Act applies to injuries sustained on the property of a public entity that were in a dangerous condition and proceeds to establish conditions under which the public entity can be held liable.

As discussed previously, under ancient English common law the responsibility for maintaining highways in good repair, including sidewalks, fell to the public and not abutting property owners.

Increasingly courts have challenged the basic assumption that sidewalks are in fact owned by the public despite their location within a public right-of-way and subject to the public's very broad right of easement to use the sidewalk. Indeed, the idea that the sidewalk area can be considered to be part of the abutting property owner's property is essential for extending liability to commercial abutters for the deteriorated condition of the sidewalk.

From the legal research conducted for this project:

> Numerous New Jersey cases on sidewalk liability recite at the outset that the issue of ownership cannot be resolved, regardless of whether the case involves a public entity claim or not. … This researcher does not read Yahnko's dictum as to title going to the middle of the road as a statement of the law of property ownership, since the public easement for the sidewalk still constitutes a property right, but rather as context buttressing the judiciary's opinion that it is the role of the legislature to impose tort liability on abutting private owners for sidewalk conditions, or for that matter on the public entity which "owns" the sidewalk easement, or owns the sidewalk itself.
>
> The Legislature has not seen fit to clear up the ambiguity or allocation of responsibility where ownership of sidewalks is unclear, or to impose liability—even conditional liability—nor has it sought to immunize public entities from sidewalk liability absolutely. Thus, the ambiguity remains.

9.0 Policy Implications and Recommendations

The question of sidewalk ownership and liability underscores the fundamentally ambiguous state into which sidewalks have fallen in New Jersey. Originally, sidewalks were considered to be essential components of public roadways in urban areas. Indeed, one reason that villages and towns sought to incorporate as boroughs or cities was to obtain the legal power to improve the streets and lay sidewalks.

Recognizing that municipalities are no longer willing to maintain and repair sidewalks and that the Legislature has not seen fit to clear up the ambiguity or allocate responsibility, the courts in New Jersey have chosen to place the burden of liability, and hence sidewalk repairs, on abutting commercial property owners and abutting charities except when the sidewalks are serving their beneficiaries.

And yet sidewalks remain critical elements of public infrastructure. The benefits of having sidewalks are enjoyed not only by the abutting property owners, but by the society as large. Occasionally one can see a suburban development where only a few individual property owners have been required or have chosen to construct sidewalks in the public right-of-way in front of their properties. The resulting isolated and discontinuous sidewalk segments are of little public benefit.

The principal reason for this condition is the failure of the New Jersey Legislature to recognize that sidewalks are critical elements of public infrastructure. In contrast, the United States Access Board has recognized that the traditional common law approach is the most effective one to assure that public resources are utilized to benefit all potential users. The Access Board requires the entity responsible for managing the roadway to also assure that curb ramps and sidewalks are accessible.

As a result, this report recommends that the Legislature clarify who should be responsible for constructing, reconstructing and maintaining sidewalks, and that responsibility should rest first with the public entity responsible for the roadway. Likewise, the Legislature should return liability to the common law approach that holds the public responsible for maintaining “highways,” including sidewalks.

Specifically, we strongly recommend the following:

9.1 Sidewalk Construction and Maintenance Responsibility

- Current statutes allow, but do not require, the county or state to construct and maintain sidewalks and curbs on county and state highways. Instead, statutes should clarify that improvements within the public right-of-way are the responsibility of the agency having jurisdiction over the roadway.
- NJDOT should be required to adopt regulations defining when sidewalks must be included as part of state roadway construction or reconstruction, taking into account the function of the roadway, its abutting land uses and the nature of the surrounding pedestrian network. The Legislature should establish policies and statutory standards to clarify that sidewalks are required as part of a complete highway policy.
- The State Highway Access Management Code should be revised to specify when sidewalks must be required on a development site as a condition of access permit approval, based on the function of the roadway and surrounding land uses. The

addition of sidewalk requirements to the Access Code may require the legislature to revisit the State Highway Access Management Act.

- Because sidewalks are essentially local resources used by local residents and visitors and serving local businesses, counties and the NJDOT should be allowed to enter into jurisdictional agreements with municipalities that:
  - Assign a municipality with management responsibility over sidewalks,
  - Provide municipalities with rights regarding the use of the right-of-way outside of the shoulder or curb,
  - Protect municipalities against actions by the state or county within the sidewalk corridor that would impact the viability of the sidewalk or of street trees and other vegetation in the corridor,
  - Provide financial assistance to municipalities for the services provided in managing the sidewalk environment.

9.2 Sidewalk Snow and Ice Policy

- Public entities having authority over roadways should be required by statute to establish programs to assure that sidewalks remain passable, especially following snow storms. This should include the responsibility to inspect and clear sidewalks, assessing the property owner for costs incurred.
- The agency having jurisdiction over a roadway should be required by statute to clear snow from sidewalks on bridges, through interchanges and along rivers, wetlands or other open space properties, with the exception that jurisdictions owning parks should continue to be responsible for maintaining sidewalks abutting parks. Statute should require that these areas be kept open to the passage of foot traffic in the same fashion that the agency maintains the abutting roadway.
- Jurisdictions having authority over roadways should also be required to keep intersections and crosswalks passable during winter storm events. Unless the jurisdiction responsible for plowing the roadway is also responsible for maintaining the crosswalks and curb ramps, it will have no incentive to avoid blocking the crosswalk with large embankments of plowed snow.
- Public entities that must clear the full width of a roadway, including the entire roadway to the curb or all of the shoulder, should be required by statute to assure that sufficient room exists to store the snow off of the sidewalk.
  - Where sufficient snow storage room is not available, the agency should be required to assume responsibility for sidewalk clearance.
  - Public entities should be allowed by statute to use abutting property on a temporary basis for snow storage where front yard area is available in compensation for assuming responsibility for sidewalk clearance.
  - Where front yard area is not available for snow storage, public entities should be required to have snow removal programs.

It remains reasonable for municipalities to require abutting property owners to keep sidewalks clear of snow and ice as a civic duty. This type of policy is consistent with the general approach that responsibility for actual delivery of public services should be kept as close to the lowest level of government that can efficiently accomplish the task.

At the same time, it should be recognized that substantial efficiencies can be gained by community based sidewalk clearance policies using the model established for Special

Improvement Districts or Homeowner Associations. As a result, the Legislature may wish to authorize the creation of special non-profit entities that could become responsible for sidewalk maintenance within identified sidewalk management districts, the cost of which would be paid for by assessments against properties in the district on the basis of curb frontage. The entities would require the approval of a large majority of the benefited property owners to be created and would be required to operate with a management board chosen from among the benefited property owners.

9.3 Street Trees

- The State, counties and municipalities should be required to retain the services of qualified urban foresters or arborists (NJ Certified Tree Experts) to assure the health of existing street trees, specify acceptable species for new plantings, and supervise any construction or maintenance activities that would affect streets including sidewalk or curb repairs or reconstruction, street resurfacing or aerial or subsurface work performed by utility companies.
- To ensure that tree service providers are following best management practices established by the trees service industry, NJ Senate Bill 1199 should be passed by the Legislature to require all urban foresters and supervising arborists to be licensed by the State of New Jersey.
- The Legislature should establish statutory policies encouraging the planting of street trees and vegetation along roadways in the state, including county and state highways. Funding for the planting and maintenance of street trees would be required.
- The entity having jurisdiction over the roadway should be responsible for the cost of repairing sidewalks damaged by street trees, or that function should be delegated to a lower level of government as part of a jurisdictional agreement.
- Operations of Shade Tree Commissions should be fully subject to the Tort Claims Act. The current exemption of Shade Tree Commissions removes Commissions from the responsibility of addressing a legitimate safety issue once it has been identified.

9.4 Liability

- The Legislature should return liability for sidewalks to the public entity maintaining the street.
- Similarly, responsibility for repairing damaged or deteriorated sidewalks should be placed on the public entity. Municipalities and the state have demonstrated that public entities are better able to manage sidewalk projects and assure quality. Again, the main purpose of this approach is to recognize the public function of sidewalks and therefore place responsibility with public entities.
- Abutting property owners should only be responsible for negligent actions on their part. Deterioration from normal wear and tear and hazards created by the actions of the elements should not be actionable against abutting property owners.

The Tort Claims Act should govern liability issues affecting sidewalks. However, the Act should be amended to require a public entity to document that it operates a sidewalk inspection and repair program in order to benefit from the protections of the Tort Claims Act, and that all sidewalks under its jurisdiction would be subject to periodic renewal to the extent required on a regularly scheduled maintenance program.

APPENDICES

Appendix A

List of Acronyms

In order of first appearance within the text

VTC.....Alan M. Voorhees Transportation Center at the Edward J. Bloustein School of Planning and Public Policy at Rutgers, The State University

NJDOT.....New Jersey Department of Transportation

FHWA.....Federal Highway Administration

ISTEA .....Intermodal Surface Transportation Efficiency Act

TEA-21 .....Transportation Efficiency Act for the 21st Century

SAFETEA-LU .....Safe, Accountable, Flexible, Efficient Transportation Equity Act – Legacy for Users

ADA.....Americans with Disabilities Act

DOJ .....United States Department of Justice

PROWAG .....Public Rights-of-Way Accessibility Guidelines

AASHTO .....American Association of State Highway and Transportation Officials

ITE .....Institute of Transportation Engineers

MLUL .....New Jersey Municipal Land Use Law (NJ Statutes 40:55D-1 et seq)

RSIS .....Residential Site Improvement Standards (NJ Administrative Code 5:21-1 et seq)

ROW .....Right-of-way

NJDEP.....New Jersey Department of Environmental Protection

SID .....Special Improvement District

DMC .....District Management Corporation for a SID

APBP.....Association of Pedestrian and Bicycle Professionals

Appendix B

List of Interviewees

Municipal Employees

Name	Title	Municipality	County
Tony Mercantante	Township Planner	Middletown	Monmouth
Carl Peters	Borough Engineer	Princeton	Mercer
Thomas Dukelow	Parks, Recreation & Community Forestry	Woodbury	Gloucester
Kenneth Garrison	Borough Engineer	Fair Lawn	Bergen
Christopher Budzinski	Township Engineer	Lawrence	Mercer
William Goble	City Engineer	Jersey City	Hudson
Stanley Wong	Assistant Engineer	Jersey City	Hudson
John Mucha	Assistant Engineer	Jersey City	Hudson
Rodney Hadley	Director of Parks & Forestry	Jersey City	Hudson
W Thomas Watkinson	Township Engineer	Millburn	Essex

County Transportation Employees

Name	Title	Agency
George Fallat	Traffic Engineer	Mercer County Highway Div.
Matthew Lawson	Transportation Planner	Mercer County Planning Div.

Consulting Engineers and Planners

Name	Title	Firm
Robert Keady	Consulting Engineer	T & M Associates
Brian Slaugh	Consulting Planner	Clarke Caton Hintz

NJ Dept of Transportation Employees

Name	Title	Agency
Brian J Strizki	State Transportation Engineer	
	Director	Design Services
Richard Dube	Manager	Access Management & Landscape Design
Richard Shaw	Director	Operations Support
David Bizuga	Manager NJDOT Rep.	Roadway Design Group 1 NJ Barrier Free Committee
Sheree J Davis	Bicycle & Pedestrian Program Coordinator	Bicycle & Pedestrian Programs
Elise Bremer-Nei	Supervising Planner	Bicycle & Pedestrian Programs

Appendix C

References

Statutes, Regulations and Judicial Opinions

- *Residential Site Improvement Standards*, NJ Administrative Code: Title 5 Chapter 21, NJ Dept of Community Affairs, Revised January 20, 2004
- US Access Board, *ADA and ABA Accessibility Guidelines for Buildings and Facilities*, Published in the Federal Register on July 23, 2004. Available at http://www.access-board.gov/ada-aba/final.htm
- US Access Board, *Draft Public Rights-of-Way Access Guidelines*, published for comment by the Access Board, Published in the Federal Register on June 17, 2004 (36 CFR Parts 1190 and 1191 [Docket No. 02-1] RIN 3014-AA26).
  Available at http://www.access-board.gov/rowdraft.htm
  Note: a Final Draft of these guidelines is anticipated to be published early in 2006.
- Statutes of the State of New Jersey, as presented on the web page of the New Jersey Legislature
  at http://www.njleg.state.nj.us
- Opinions of the New Jersey Courts, Rutgers Law School – Camden, a full-text archive of opinions from September 1995 to the present,
  available at http://lawlibrary.rutgers.edu/search.shtml

Design Guidelines

- *Policy on Geometric Design of Highways and Streets*, Fifth Edition, AASHTO, Washington DC, 2004
- *Guide for the Planning, Design and Operation of Pedestrian Facilities,* AASHTO, Washington DC, July 2004
- *Pedestrian Compatible Planning and Design Guidelines*, NJDOT, April 1996
  Available at
  http://www.state.nj.us/transportation/publicat/pdf/PedComp/pedintro.pdf
- *Design and Safety of Pedestrian Facilities: A Recommended Practice,* Traffic Engineering Council Committee TENC-5A-5, Institute of Transportation Engineers, Washington DC, March 1998
- *Guidelines for Residential Subdivision Street Design: A Recommended Practice,* Technical Council Committee 5A-25A, Institute of Transportation Engineers, Washington DC, 1997
- *Traditional Neighborhood Development Street Design Guidelines: A Recommended Practice,* Transportation Planning Council Committee 5P-8, Institute of Transportation Engineers, Washington DC, October 1999
- Kulash, Walter M; *Residential Streets*, Third Edition, ULI – the Urban Land Institute, Washington DC, 2001. Report prepared in partnership by the National Association of Home Builders, American Society of Civil Engineers, Institute of Transportation Engineers and Urban Land Institute.

- Kirschbaum, Julie B … [et al.], Barbara McMillen, Program Manager, *Designing Sidewalk and Trails for Access – Part 2*, Federal Highway Administration – USDOT, Washington DC, September 2001. Available at http://www.fhwa.dot.gov/environment/sidewalk2/

Books on Sidewalks, Streets and Walking

- Amato, Joseph A., *On Foot: A History of Walking*, NYU Press, New York, 2004
- Anderson, Stanford, editor, *On Streets*, MIT Press, Cambridge, MA, 1986
- Gehl, Jan, *Life Between Buildings: Using Public Space*, Van Nostrand Reinhold, New York, 1987
- Jacobs, Allan B, Great Streets, MIT Press, Cambridge, MA, 1995
- Jacobs, Jane, *The Economy of Cities*, Random House, New York, 1969

Books and Web Pages Used for Sidewalk History

- Clayton, W Woodford, editor, *History of Union and Middlesex Counties, New Jersey*, Everts & Peck, Philadelphia, 1882
- Trenton Historical Society, by Edwin Robert Walker [and others], *A History of Trenton – 1679-1929*, Princeton University Press, Princeton, 1929
- Urquhart, F. J. [and others}, A History of the City of Newark, New Jersey – 1666-1913, The Lewis Historical Publishing Company, New York & Chicago, 1913
- Wainwright, Nicholas B., *A Philadelphia Story: The Philadelphia Contributionship*, Wm. F Fell Co, Philadelphia, 1952
- Wilkinson, J B, *The Annals of Binghamton of 1840*, Broome County Historical Society, Binghamton, NY, 1967
- "Clear Your Sidewalks", Boston Law of the Day, Charter and Ordinances of the City of Boston together with the Acts of the Legislature Relating to the City, Boston, 1834, Chapter 41-39 Section 17. As found at http://bostonhistory.typepad.com/notes_on_the_urban_condit/2004/11/clear_your_side.html
- "Sidewalk History 101: Who Came Up With That Brilliant Idea, Anyway?", *Blithering Antiquity: The Magazette of Historical Curiosities, Inquiries & Intrigues*, (Vol. One, No. 7 – July 2003), as found at: http://www.hornpipe.com/ba/ba7b.htm

Appendix D
Sidewalk Liability in New Jersey

Prepared by Janine Bauer, Esq.

Trends in Sidewalk Liability in New Jersey

A Westlaw review of court cases dealing with sidewalk lawsuits and an analysis of findings and trends in sidewalk law in New Jersey and nationally.

Residential Owners and Sidewalk Liability at Common Law

In New Jersey, at common law, private residential property owners are not responsible for maintaining their abutting public sidewalks in good repair so as to render them safe for passage by pedestrians, including clearing snow or ice from sidewalks after a storm, or correcting wear and tear incident to public use. In the absence of a statute or local ordinance imposing such a duty, a private owner or occupier of land abutting a public sidewalk does not owe a duty to the public to keep the sidewalk in safe condition, and he is generally not liable for injuries sustained by pedestrians caused by unsafe conditions. This is so regardless of whether the landowner's title goes to the middle of the street, subject to the public easement of vehicular passage in the street and pedestrian passage on the sidewalk, or whether it ends short of that point.

The law has not changed much over time. The "no liability" rule for abutting owners was a product of early English common law, which provided that the "parish at large is *prima facie* bound to repair all highways lying within it." (The sidewalk is considered part of the highway.) This rule was clearly enunciated in Yahnko v. Fane, 70 N.J. 528 (1976), and has been eroded since then only for commercial business owners, who must maintain abutting sidewalks in reasonably good condition in New Jersey.

However, there are exceptions to the general rule. If an abutting residential landowner or occupier creates a dangerous condition as a result of his direct use of the sidewalk, he is under a duty to use reasonable care to warn pedestrians of its existence or to otherwise protect them against injury therefrom to avoid liability. For example, if an abutting landowner or occupier places an article, substance, or structure in the public way, and a pedestrian may reasonably be expected to be injured thereby, the abutting landowner or occupier must use reasonable care to guard against such injury.

The Supreme Court in Yahnko v. Fane, affirming a long line of cases to the same effect, stated the law quite clearly:

> It is well settled that an abutting owner is not liable for the condition of a sidewalk caused by the action of the elements or wear and tear incident to public use, but only for the negligent construction or repair of the sidewalk by himself or by a specified predecessor in title or for direct use or obstruction of the sidewalk by the owner in such a manner as to render it unsafe for passersby. Id. at 528.

Recently, in Nash v. Lerner, 311 N.J. Super 183 (App. Div. 1998), the Appellate Division of the Superior Court issued a 2-1 decision in which the majority found that an abutting residential landowner should be held liable for a direct use of the sidewalk in such a manner as to render it unsafe for passersby. The facts in that case as alleged by the plaintiff were that the defendant's driving a car over the sidewalk for many years (into the driveway) caused a "bedding failure"

and that this unsafe condition (which resulted in a 1.25 inch height difference in the sidewalk) was unsafe. The Supreme Court quickly reversed that decision, in Nash v. Lerner, 157 N.J. 535 (1999), adopting the dissent's position, which had argued that Yahnko v. Fane, 70 N.J. 528 (1976) was still controlling precedent for residential private landowners abutting a public sidewalk. Therefore, absent some affirmative act, residential owner has no duty to repair or maintain the sidewalk at the base of a residential driveway where the deterioration occurs over time due to long-term residential traffic accessing the driveway over the sidewalk. Nash v. Lerner, 157 N.J. 535 (1999), adopting dissent 311 N.J. Super. 183, 193 (App. Div. 1998).

Civil jury instructions used in New Jersey trial courts reflect this state of the law:

"The owner (occupant) of residential premises abutting a public sidewalk is not responsible for defects therein caused by the action of the elements or by the wear and tear incident to public use. If, however, the defective condition of the sidewalk was the result of the negligent construction thereof by the owner (or occupant) or that it resulted from an activity, commercial or otherwise, which was carried on by him/her, the plaintiff may recover for the injuries proximately resulting from such defective condition." See Civil Charge 5.18 (Dangerous Conditions of Public Property); Hayden v. Curley, 34 N.J. 420 (1961); Krug v. Wanner, 28 N.J. 174 (1958); Moskowitz v. Herman, 16 N.J. 223, 225 (1954); Volke v. Otway, 115 N.J.L. 553 (E. & A. 1935); Prange v. McLaughlin, 115 N.J.L. 116 (E. & A. 1935); Braelow v. Klein, 100 N.J.L. 156 (E. & A. 1924); Rupp v. Burgess, 70 N.J.L. 7 (Sup. Ct. 1903). See Civil Jury Instruction 5.19.

Some exceptions to the general rule of "no liability" are worthy of exposition.

Negligent Repairs

As to repairs, a residential property owner owes no duty to the public to repair a sidewalk which is in a state of disrepair by reason of normal wear and tear or by reason of the elements such as rain, snow, frost, ice, and the like. Nor is mere failure fully to correct the old condition a sufficient basis for liability. Where, however, the owner attempts to make repairs to correct some defect therein for which he is not responsible, he becomes responsible if he makes the repairs negligently and thereby causes the sidewalk, after the repairs, to be more dangerous than before or if he causes a new hazard, different from the old. See Civil Jury Charge 5.18; Nash v. Lerner, 157 N.J. 535 (1999), adopting dissent 311 N.J. Super. 183, 193 (App. Div. 1998); Tierney v. Gilde, 235 N.J. Super. 61 (App. Div. 1989); Snidman v. Dorfman, 7 N.J. Super.. 207 (App. Div. 1950); Halloway v. Goldenberg, 4 N.J. Super. 488 (App. Div. 1949); Braelow v. Klein, 100 N.J.L. 156 (E. & A. 1924); Istvan v. Engelhardt, 131 N.J.L. 9 (Sup. Ct. 1943).

Tree Roots

Until a decade ago, it was thought that the existence of a shade tree commission immunizes property owners, without distinction as to the nature of ownership, from liability for injuries stemming from defective sidewalks caused by shade tree roots. Tierney v. Gilde, 235 N.J. Super. 61, 65 (App. Div. 1989); but see Straus v. Borough of Chatham, 316 N.J. Super 26, 31 (app. Div. 1998). However, in 1996 the Legislature enacted a statute that clarified that while shade tree commissions are immune from suit, abutting property owners are not:

The existence of a municipal shade tree commission established pursuant to *R.S.* 40:64-1 et seq. or a county shade tree commission established pursuant to *R.S.* 40:37-1 et seq., or the fact that a municipality or county has otherwise provided for the regulation, planting, care, control, or maintenance of trees or shrubs within its jurisdiction, shall not be cause to immunize a private person from liability for an injury caused directly or indirectly by a tree or shrub, or any part thereof, who otherwise would be liable for that injury.

[New Jersey Shade Tree and Community Forestry Assistance Act, *N.J.S.A.* 13:1L-17.1 to 17.9.] See also Nielsen v. Lee, 355 N.J. Super. 373, 378-379 (App. Div. 2002).

Nuisance Creation

Where the abutting owner, although not obligated to construct a sidewalk, does so in such a manner that it is hazardous to pedestrians, it is a public nuisance and the owner is liable. Braelow v. Klein, 100 N.J.L. 156 (E. & A. 1924). An owner, attempting to repair an existing sidewalk, or to correct some defect therein, may create a nuisance and be responsible if the sidewalk, after the attempt to repair or correct, is more dangerous than before, or the new hazard is different from the old. Istvan v. Engelhardt, 131 N.J.L. 9 (Sup. Ct. 1943). A street and every part of it is so far dedicated to the public that any act or obstruction which unnecessarily incommodes or impedes its lawful use is a nuisance.

Therefore, one who constructs a drain, grating or a coal hole or similar structure in the sidewalk does it subject to the right of safe passage of the public over and along every part of the sidewalk. In making such use of the sidewalk, he is required to do so by a method of construction which does not create a nuisance and, having done so, is under a further duty of exercising reasonable care to keep the structure safe for the use of the public. Saco v. Hall, 1 N.J. 377 (1949); Weller v. McCormack, 52 N.J.L. 470 (Sup. Ct. 1890) (tree); Rupp v. Burgess, 70 N.J.L. 7 (Sup. Ct. 1903) (drain); Kelly v. Lembeck & Betz Brewing Co., 86 N.J.L. 471 (Sup. Ct. 1914) aff'd, 87 N.J.L. 696 (E. & A. 1915) (cellar door); Braelow v. Klein, 100 N.J.L. 156 (E. & A. 1924) (difference in level).

Where, through the action of a prior owner of premises abutting a public sidewalk, a condition amounting to a nuisance has been created. One who takes title from the original creator of the condition and continues to maintain it may be held liable in damages to a user of the sidewalk who suffers injury by reason of such condition. See Murrary v. Michalak, 114 N.J. Super. 417 (App. Div. 1970), aff'd, 58 N.J. 220 (1971); Krup v. Wanner, 28 N.J. 174 (1958).

Snow, Ice

Liptak v. Frank, 206 N.J. Super. 336 (App. Div. 1985), held that residential landowners owe no duty to pedestrians, under either common law or municipal ordinance, to remove ice and snow from their abutting sidewalk. Thus, the owner (or occupant) of residential premises abutting a public sidewalk is not required to keep the sidewalk free from the natural accumulation if ice and snow. But he is liable if, in clearing the sidewalk of ice and snow, he, through his negligence, adds a new element of danger or hazard, other than that caused by the natural elements, to the use of the sidewalk by a pedestrian. In other words, while an abutting owner (or occupant) is under no duty to clear his sidewalk of ice and snow, he may become liable where he undertakes to clear the sidewalk and does so in a manner which creates a new element of danger which

increases the natural hazard already there. See Taggert v. Bouldin, 111 N.J.L. 464, 467 (E. & A. 1933); Saco v. Hall, 1 N.J. 377, 381 (1949); MacGregor v. Tinker Realty Co., 37 N.J. Super. 112, 115 (App. Div. 1955); Gentile v. National Newark and Essex Bkg. Co., 53 N.J. Super. 35, 38 (App. Div. 1958); Seqgal v. Fox, 98 N.J.L. 819 (E. & A. 1923) (existence of a municipal ordinance obligating landowner to clear sidewalk of ice and snow does not create rights in favor of private individual on defendant's failure to comply with the ordinance); *cf.* Gellenthin v. J & D. Inc., 35 N.J. 341 (1962).

To summarize, in the absence of a statute imposing such a duty, an owner or occupier of land abutting a public sidewalk does not owe to the public a duty to keep it in safe condition, and he is generally not liable for injuries sustained by pedestrians and caused by unsafe conditions therein.

Duty to Maintain, or Clear of Ice and Snow, Imposed by Municipal Ordinance

New Jersey cases have consistently refused to find that municipal ordinances requiring landowners to repair or maintain abutting sidewalks create a duty running from the property owner to the injured plaintiff, unless a statute explicitly establishes civil tort liability for violation of the ordinance. In Yahnko v Fane, *supra*, the Supreme Court rejected the thesis that a municipal sidewalk ordinance creates a tort duty owing to passersby on the public passageway. In the Yahnko case, a 1916 ordinance in effect when that accident occurred required all sidewalks, curbs and gutters to be "graded, paved, constructed and repaired" by adjoining lot owners, failing which the common council could cause the work to be done and the cost thereof to become a lien on the property.
See also Lambe v. Reardon, 69 N.J.Super. 57, 68, 173 A.2d 520 (App.Div.1961), certif. den., 36 N.J. 138, 174 A.2d 924 (1961); Fielders v. North Jersey St. Ry. Co., 68 N.J.L. 343, 53 A. 404 (E. & A. 1902); Zemetra v. Fenchel Realty Co., Inc., 134 N.J.L. 358, 47 A.2d 890 (Sup.Ct.1946), aff'd135 N.J.L. 205, 50 A.2d 895 (E. & A. 1947); Coll v. Bernstein, 14 N.J.Super. 71, 81 A.2d 389 (App.Div.1951); *cf.* 19 McQuillin, Law of Municipal Corporations, Sec. 54.42b, at p. 106 (3d ed. 1967); Annot., 88 A.L.R.2d 331, 354-358 ("Liability of Abutting Owner or Occupant for Condition of Sidewalk").

While the narrow issue of civil liability based on a sidewalk ordinance had apparently never been addressed by the Supreme Court, prior to Yahnko, an analogous question was decided in Brown v. Kelly, 42 N.J. 362, 200 A.2d 781 (1964). In that case plaintiff was injured as a result of a fall on a snow-covered sidewalk abutting defendant's premises. Although a municipal ordinance required removal of snow within twelve hours of daylight after a storm, the defendant owner had made no effort to comply. Refusing to upset the well-settled rule that snow removal ordinances create no civil liability, absent an express provision therefor, Sewall v. Fox, 98 N.J.L. 819, 121 A. 669 (E. & A. 1923), the Supreme Court affirmed the trial court's dismissal of plaintiff's suit. Yahnko looked favorably on this result as well. Recent cases decided by the Appellate Division of Superior Court continue to affirm this "no duty to the public" interpretation of municipal snow and ice removal ordinances.

Notwithstanding the above, if the unsafe condition is alleged to be snow and ice, any ordinance adopted by the municipality might be charged to the jury as a factor to consider in determining whether the owner was negligent. If that occurs, the jury should consider the reasonableness of

the time the defendant has waited to remove or reduce a snow or ice condition from the sidewalk.

Commercial Property Owners and Sidewalk Liability

Commercial property owners are liable for maintaining their abutting public sidewalks in reasonably good condition (even when the sidewalks are municipal or public property (right of way)) so as to render them safe for passage by pedestrians, including clearing snow or ice from sidewalks after a storm. In Stewart v. 104 Wallace St., Inc., 87 N.J. 146, 157 (1981), the New Jersey Supreme Court held that commercial property owners are liable to pedestrians injured as a result of the negligent failure to maintain the abutting sidewalks in reasonably good condition. Whether the defect is caused by tree roots, holes, broken sidewalk, uplifted segments of sidewalk, weather-caused fractures and fissures, crevices or the like, or from objects of materials cast or dropped onto the sidewalk, the duty was found to exist to ensure safe passage for pedestrians. Even if a third person causes the defective condition to exist, the Supreme Court in Stewart held that an abutting landowner may be liable to a pedestrian injured by the defective condition. This is an exception to the Yahnko "no liability" rule.

In Mirza v. Filmore Corp., 92 N.J. 390 (1983), the Supreme Court extended the exception created by Stewart for commercial landowners to the removal of natural accumulations of snow and ice on the abutting sidewalks. The Court found that there was no reason to distinguish between defective conditions that arise naturally and those that arise by human behavior. Mirza did include caveats on the duty. For instance, the abutting commercial owner's responsibility arises only if, after actual or constructive notice, he has not acted in a reasonably prudent manner under the circumstances to remove the hazard, or reduce the risk. The test is whether a reasonably prudent person, who knows or should have known of the condition, would have within a reasonable period of time thereafter caused the public sidewalk to be in reasonably safe condition. Mirza, *supra*, at 395-396.

The duty thus imposed on commercial property owners stems from basic tort law concepts of fairness, justice and risk allocation. The theory supporting the extension of the duty to maintain sidewalks in good repair to commercial landowners for abutting sidewalks is that their patrons, clients and customers, as well as employees, use those sidewalks when accessing the commercial business, and the business invitees and employees are entitled to safe access to the business. This duty was first recognized in Stewart, although it was foreshadowed by thirty years of jurisprudence, and thus in Mirza, was found to be a retroactive duty as well.

The Mirza Court took pains to determine that the duty imposed there and by Stewart would be applied retroactively, regardless of any reliance property owners may have had on an earlier rule of law, based on Yahnko, that held commercial property owners immune from liability in such circumstances. The Mirza Court said, "Knowledge of the limits of liability might influence a business decision of a commercial landowner. But the conduct of most would probably conform with ethical standards impelling the property owner to keep the public sidewalk safe." Mirza, *supra*, at 522.

In Jackson v. K-Mart, 182 NJ. Super. 645 (L. Div. 1981), the court made it clear that where the sidewalk provided a direct route of access to the business from the parking lot used by business

invitees, the tenant could not escape liability because the owner had assumed responsibility for the sidewalk's maintenance.

Civil jury charges likewise reflect the state of law for commercial property owners or operators, and the higher standard of care required of them:

"The law imposes upon the owner of commercial or business property the duty to use reasonable care to see to it that the sidewalks abutting the property are reasonably safe for members of the public who are using them. In other words, the law says that the owner of commercial property must exercise reasonable care to see to it that the condition of the abutting sidewalk is reasonably safe and does not subject pedestrians to an unreasonable risk of harm. The concept of reasonable care requires the owner of commercial property to take action with regard to conditions within a reasonable period of time after the owner becomes aware of the dangerous condition or, in the exercise of reasonable care, should have become aware of it."

"In a case in which …the property owner contends that he/she had no notice or knowledge of the alleged dangerous condition and, therefore, cannot be held responsible for it. In that connection, I must make you aware of this rule: The owner of commercial or business property is chargeable with a duty of making reasonable observations of his/her property, including the abutting sidewalk, in order to discover any dangerous condition that might develop or occur. The owner must make observations of his/her property, including the sidewalk, with the frequency that a reasonably prudent commercial property owner would in the circumstances. If you find that such a reasonable observation would have revealed the dangerous condition alleged in this case, then the property owner is chargeable with notice of the condition although he/she did not actually know about it; that is, he/she is as much responsible for the condition as if he/she had actual knowledge of its existence." Civil Jury Charge 5.19.

Finally, the action required by the law is action which a reasonably prudent person would take or should have taken in the circumstances present to correct the defect/snow/ice accumulation/dangerous condition, repair it/remove it or to take other actions to minimize the danger to pedestrians (for example, to give warning of it) within a reasonable period of time after notice thereof. The test is: did the commercial property owner take the action that a reasonably prudent person who knows or should have known of the condition would have taken in that circumstance? If he/she did, he/she is not negligent. If he/she did not, he/she is negligent. Id.

Where there is both a commercial and residential use of the property, the predominant use will determine the status of the property. Avalone v. Mortimer, 252 N.J. Super. 434 (App. Div. 1991), Wasserman v. W. R. Grace Co., 281 N.J. Super. 34 (App. Div. 1995). Hambright v. Yglesias, 200 N.J. Super. 392, 395 (App. Div. 1985), (two-family home utilized as apartment building in commercial property so as to impose duty upon owner to remove the ice from abutting sidewalk).

In Hambright, the question was whether the disputed property was sufficiently commercial for purposes of imposing tort liability upon the property owner for failure to maintain abutting sidewalks. Potential liability existed for commercial landowners in Hambright, but not residential landowners, thus continuing the trend of sidewalk liability cases. Id. (citing Mirza v. Filmore Corp., 92 N.J. 390, 395, 456 A.2d 518 (1983); Stewart v. 104 Wallace St., Inc. 87 N.J.

146, 157, 432 A.2d 881 (1981)). See also Borges v. Hamad, 247 N.J. Super 353 (Law Div. 1990); affirmed 247 N.J. Super. 295 (App. Div. 1990) (owner occupied three family house in a residential zone, with two rental units occupied solely by family members, is residential property).

The owner of a vacant lot is not a commercial land owner for purposes of imposing sidewalk liability irrespective of the commercial status of the owner or the zoning. Briglia v. Mondrian Mortgage Corporation, 304 N.J. Super. 77 (App. Div. 1997); Abraham v. City of Perth Amboy, 281 N.J. Super. 81 (App. Div. 1995).

Municipal Corporations and Other Public Entities and Sidewalk Liability

This section of the paper examines the treatment of claims for sidewalk injuries under the Tort Claims Act, which was enacted by the New Jersey Legislature in 1972 in response to Willis v. Conservation and Econ. Dev. Dept., 55 N.J. 534 (1970). Willis all but eliminated sovereign immunity in actions brought against the State and local governments.

It is not entirely clear whether municipalities (and hence county and state government units) in New Jersey are absolutely immune from liability for sidewalk-related accidents, or whether the usual qualifications and exceptions would apply, at common law, as they do with private property owners, modified, of course, by the operation and the protections afforded by the Tort Claims Act.

The trend is certainly toward broad immunity under the rigorous provisions of the Tort Claims Act. In Christmas v. City of Newark, 216 N.J. Super. 393, 400 (App. Div. 1987), the court wrote, "Even before the [Tort Claims] act, however, our Supreme Court acknowledged and applied the doctrine that 'there are several kinds of acts or omissions of government, no matter how they are categorized, defined or labeled, or how governmental immunity from suit is to be regarded, which should not give rise to tort liability.'" Christmas, *supra* at 396, citing and quoting Horan v. State, 212 N.J. Super. 132, 135 (App. Div. 1986). See also Lombardi v. First United Methodist Church, 200 N.J. Super. 646 (App. Div. 1985). Brown v. St. Venatious School, 111 N.J. 325 (1988).

In Christmas v. City of Newark, *supra*, 216 N.J. Super. at 400, the Appellate Division seemed to suggest, without explicitly stating, that Stewart, *supra*, and the Tort Claims Act itself, established an absolute municipal immunity from claims for injuries caused by deteriorated sidewalks. However, because there was no evidence that the City of Newark owned or controlled the sidewalk there, or that any Newark employee created the hole into which the plaintiff fell, that Newark had actual or constructive notice of the hole, or that Newark's inaction was palpably unreasonable, as required by the Tort Claims Act, the case was rather easily decided against the plaintiff on appeal, although the jury had found Newark to be negligent and 80% liable for her injuries.

The Christmas court noted with emphasis the Tort Claims Act's language specifying that "A public entity is liable for injury caused by a condition of *its* property … ." N.J.S.A. 59:4-2. As such, the question of absolute immunity at common law was not actually before the distinguished panel of appellate judges that decided that case in favor of Newark. The judges did

point out that municipalities have miles of sidewalks and hinted at the unfairness of imposing liability for failing to maintain the public sidewalks in good condition, especially for cities with a proportionately large number of miles of sidewalks abutting commercial property.

In Levin v. DeVoe, 221 N.J. Super. 61, at 64 n.1 (App. Div. 1987), another distinguished panel of the Appellate Division disagreed with the holding in Christmas, which Judge Brody, writing for the court, interpreted as invoking an absolute immunity rule. The question was not presented in Levin either; there, the plaintiff fell on the curb where it met the street.

Ownership

As late as the 1987 Christmas ruling, in which the Appellate Division repeated Yahnko's discussion to the effect that the private property owner has title to the middle of the abutting street, subject to the easement for vehicular passage n the public street and pedestrian passage on the sidewalk, courts were ambiguous as to the actual ownership of sidewalks, which is a critical prerequisite to finding liability under the Tort Claims Act. In many states, it is the case that private property extends to the middle of the street, but in New Jersey, determining where the title of an abutting owner ends would in many cases require searches extending back to colonial times.

Numerous New Jersey cases on sidewalk liability recite at the outset that the issue of ownership cannot be resolved, regardless of whether the case involves a public entity claim or not. Obviously, this ambiguity as to ownership hampers recovery on the part of pedestrians. This researcher does not read Yahnko's dictum as to title going to the middle of the road as a statement of the law of property ownership, since the public easement for the sidewalk still constitutes a property right, but rather as context buttressing the judiciary's opinion that it is the role of the legislature to impose tort liability on abutting private owners for sidewalk conditions, or for that matter on the public entity which "owns" the sidewalk easement, or owns the sidewalk itself.

The Legislature has not seen fit to clear up the ambiguity or allocation of responsibility where ownership of sidewalks is unclear, or to impose liability—even conditional liability—nor has it sought to immunize public entities from sidewalk liability absolutely. Thus, the ambiguity remains. Except where they front on commercial properties, sidewalks are in a no man's land in terms of deferred maintenance that can contribute to serious injuries to innocent pedestrians. To the extent that municipal code enforcement officials and other similarly situated individuals employed by higher-level public entities enforce ordinances against deteriorating sidewalks, that is the best protection that pedestrians have now.

Notice

The Tort Claims Act, N.J.S.A. 59:1-1 et seq., expressly provides that municipal corporations are not liable for injuries caused by dangerous or defective conditions of their property unless they receive actual notice thereof within a specified time before the occurrence of an injury. Such notice may also be required to be in writing. Moreover, the property alleged to have caused the injury must actually be owned by the local or state government. The plaintiff must further prove that the property was I a dangerous condition at the time of the accident, that the dangerous condition was the proximate cause of the accident and injury, that the dangerous condition

created a reasonably foreseeable risk of the kind of injury which was incurred, and that either a negligent or wrongful act or omission of an employee of the public entity within the scope of his employment created the dangerous condition, or the public entity had actual or constructive notice of the dangerous condition under N.J.S.A. 59:4-3 for a sufficient time prior to the injury to have taken measures to protect against the dangerous condition. Finally, even if the public entity had notice, liability will not be imposed unless the failure to take action to correct it was "palpably unreasonable." N.J.S.A. 59:4-2.

This statute is designed to protect a municipality against any claims until it has had notice of and a reasonable opportunity to repair or remedy any dangerous or defective conditions. It does its job well.

Non-Profit Charitable Organizations (Churches, etc.) and Sidewalk Liability

At common law, there is no affirmative duty on the part of a charitable or religious institution to maintain public sidewalks abutting their properties. Lombardi v. First United Methodist Church, 200 N.J. Super. 646 (App. Div. 1985). At common law, there was also immunity for nonprofit institutions to tort liability. Common law immunity from tort liability was judicially abolished in 1958, but the Legislature quickly interceded and enacted New Jersey's charitable immunity statute, N.J.S.A. 2A:53A-7 through 11 which restored immunity for charitable institutions from tort liability for those it serves:

> a. No nonprofit corporation, society or association organized exclusively for religious, charitable or educational purposes or its trustees, directors, officers, employees, agents, servants or volunteers shall, except as is hereinafter set forth, be liable to respond in damages to any person who shall suffer damage from the negligence of any agent or servant of such corporation, society or association, where such person is a beneficiary, to whatever degree, of the works of such nonprofit corporation, society or association; provided, however, that such immunity from liability shall not extend to any person who shall suffer damage from the negligence of such corporation, society, or association or of its agents or servants where such person is one unconcerned in and unrelated to and outside of the benefactions of such corporation, society or association. [Id.]

The Supreme Court has explained that the public policy behind the charitable immunity doctrine is to avoid diverting funds away from a charity's mission " ' where the injured party participates in the charity's largesse.' " Lindroth v. Christ Hospital, 21 N.J. 588, 595, 123 *A.*2d 10 (1956) (quoting Daniels v. Rahway Hospital, 10 N.J. Misc. 585, 588, 160 *A.* 644 (C.P.1932)). See also Jones v. St. Mary's Roman Catholic Church, 7 N.J. 533, 536-37, 82 *A.*2d 187, *cert.* denied 342 *U.S.* 886, 72 *S.Ct.* 175, 96 *L.Ed.* 664 (1951) ("··· it would be contrary to the interests of society that funds dedicated to a charitable use be permitted to be diverted or diminished by the payment of judgments ··· where suit is instituted by the beneficiary of the charity").

Where the charitable institution is operating a profit-making enterprise, however, and the injured party is a customer of that enterprise, tort liability may attach under ordinary rules of negligence. See Brown v. St. Venatious School, 111 N.J. 325 (1998) (school deemed commercial); Restivo v. Church of St. Joseph, 306 N.J. Super. 456 (App. Div. 1997) (leasing apartments even at below

fair market value deemed commercial); Gilhooly v. Zeta Psi Fraternity, 243 N.J. Super. 201 (Law Div. 1990) (fraternity deemed commercial property owner). In such cases, even the nonprofit institution would probably be liable in tort for failure to repair or maintain its sidewalks in line with the commercial property owner cases.

Strangers to the charity may recover in accordance with New Jersey's statutes and common law. See DeVries v. Habitat for Humanity, 290 N.J. Super 479 (App. Div. 1996), aff'd, 147 N.J. 619 (1996) (volunteer was entitled to recover upon showing that he did not benefit from charity's work or mission). A nonprofit organization thus has no immunity as to those outside its benefaction. In addition, charitable hospitals are liable up to a certain amount. See N.J.S.A. 2A:53A-8.

Trends in National Sidewalk Liability

Trends in sidewalk liability cases, based on law review articles and secondary sources, are in line with New Jersey's, except that in most places, commercial property owners still do not have an affirmative duty to repair or maintain abutting sidewalks, except perhaps to business invitees.

According to the summary provided in 18 ALR 3rd 428, (2005) (Abutting Owner's Liability for Injury From Ice Formed on Sidewalk By Discharge of Precipitation), in the absence of a statutory provision to the contrary, the owner of property owes no duty to pedestrians to keep the sidewalk in front of it free from ice and snow coming thereon from natural causes or by the acts of others, or to guard against the risk of accident by scattering ashes or using other like precautions, and will not be liable in damages to persons injured by reason of his failure to do so. This general rule, however, is not applicable where such property owner constructs or maintains upon his property gutters, conductor pipes, or other structures or channels, in such a manner as to cause an artificial discharge and accumulation of water upon the sidewalk, which, when frozen, makes the use of the sidewalk dangerous.

Thus, the owner of property abutting on a sidewalk on which a pedestrian was injured in a fall on ice has frequently been held liable for such injuries where the accumulation of the water forming the ice was due to the manner of construction or maintenance of gutters, conductor pipes, spouts, or the like, on the abutting property, or it was due to the manner of construction or maintenance of such other structures as eaves, cornices, ledges, porticoes, awnings, canopies, marquees, bay windows, signs, retaining walls, hedges, driveways, or the door of a cellarway. On the other hand, the abutting owner has been held not liable where it was not sufficiently established that the icy condition complained of was actually created by such owner, or where there was no showing of any causal connection between the injury in question and such owner's alleged negligence in the maintenance of his property.

Where there is an ordinance prohibiting the discharge of water on sidewalks or regulating the manner of construction and maintenance of drains, spouts, or the like, and the abutting owner fails to comply with such ordinance, this fact will ordinarily be considered in the determination of the liability of the abutting owner for injuries sustained in a fall on ice on a sidewalk. The fact that the municipality may have been remiss in performing the duties imposed upon it by law in regard to the maintenance or care of its streets or sidewalks, and thus may be liable for its failure of duty in this respect, will not relieve the abutting landowner from liability where he is

otherwise liable for discharging water from his premises onto the sidewalk, creating a dangerous situation.

It has also been held that where an icy condition on a sidewalk is created because of an artificial discharge and accumulation of water owing to certain conditions on the abutting premises, the owner of such premises may not escape liability for injuries sustained because of such condition on the ground that he has acquired a prescriptive right to turn water across the sidewalk.

According to 88 ALR 2d 331 (Liability of Abutting Owner or Occupant for Condition of Sidewalk), as well as 21 Causes of Action 2d 71 (2004) (Cause of Action Against Municipality for Defective Sidewalk), generally, in an action against a public authority for injuries resulting from a dangerous or defective condition of a sidewalk, liability will not be imposed; the entity will be immune from suit. Liability will not even be considered unless it is shown that the public authority knew or should have known of the dangerous or defective condition for a sufficient length of time prior to the accident within which it might have remedied the condition or have taken other precautions to guard against injury therefrom. Of course, if the dangerous or defective condition in question was created or authorized by the public authority or abutting landowner or occupier, any additional requirement of knowledge or notice thereof with respect to such party is not required.

Thus, notice need not be established where it is shown that the injury in question resulted from negligent construction, improvement, or repair of a public way by a public authority or abutting landowner, or from the failure of a public authority or abutting landowner to safeguard the area in question properly. Nor is there any additional requirement of notice if the dangerous or defective condition of the sidewalk constitutes a nuisance, such as where a dangerous condition was known and permitted to exist for a long period of time.[13]

Notice of a dangerous or defective condition of a sidewalk may be either actual or constructive. In other words, it may arise from actual knowledge, or it may be based on a theory that one must be presumed to know what he should have discovered by the exercise of reasonable diligence. In determining whether or not a public authority or an abutting landowner or occupier is to be charged with constructive notice of a dangerous or defective condition of a sidewalk, the circumstances of each case must be considered, including the character of the way; its location and the extent of travel over it; the nature of the particular defect or dangerous condition therein; whether the defect or dangerous condition is latent or obvious; and the length of time during which the defect, dangerous condition, or obstruction has existed. Whether a public authority or abutting landowner or occupier is to be charged with the requisite notice or knowledge of the particular defect, obstruction, or condition involved is ordinarily a question of fact for the jury.

[13] The requirement that a public authority or an abutting landowner or occupier must have knowledge or notice of the dangerous or defective condition of a sidewalk as a prerequisite to liability must be distinguished from the general requirement of notice and presentment of claims against a municipality or other political subdivision as a condition precedent to filing a civil action for damages. The discussion herein is limited to the former situation; the latter is beyond the scope of this paper.

One observation is in order, however. In determining whether a public authority or an abutting landowner or occupier is to be charged with constructive knowledge or notice of a dangerous or defective condition of a sidewalk, the length of time that the condition has existed is but one factor to be considered. Although it is an important consideration, there is no general standard or rule to indicate what might be a "reasonable" length of time within which a public authority or an abutting landowner or occupier should have known of the dangerous or defective condition. Thus, cases in which constructive knowledge or notice was found to have been established have involved time periods ranging from as much as several years to as short a period of time as two days. Clearly, therefore, all other circumstances in addition to the length of time that the dangerous or defective condition existed must be considered in determining whether knowledge or notice thereof will be imputed to defendant. It has been held in this regard that notice to an abutting landowner should be imputed in much less time after a particular defect or dangerous condition has existed than would be necessary to impute it to a public authority, since an abutting landowner ordinarily pays closer attention to his property.

Legal Responsibilities Associated with Sidewalks and Rationale

A general review of current legal responsibilities associated with sidewalks and the rationale behind these responsibilities.

In imposing liability upon commercial property owners, the Supreme Court stressed the "considerable interest in and rights to use" abutting sidewalks, "rights that are especially valuable to an owner of abutting commercial property." Id. at 150-51, 432 *A.*2d 881. Importantly, the Court reasoned "sidewalks provide commercial owners with easy access to their premises and increase the value of their property. Public use of commercial establishments is facilitated by the existence of sidewalks." Id. at 152, 432 A.2d 881 (emphasis added).

Also, Stewart cites Justice Pashman's vigorous dissent in Yanhko, 70 *N.J.* at 537, 362 *A.*2d 1, where he observed that commercial landowners "as practical businesspeople" strongly encourage the use of their sidewalks in order to "facilitate the success of their business[es.]" Id. at 542, 362 *A.*2d 1 (Pashman, J., dissenting). Thus, imposition of a duty of care upon the business proprietor to maintain abutting sidewalks should be viewed no differently than the business proprietor's duty to exercise reasonable care to protect the safety of the invited public within the business establishment itself. Id.
Finally, in support of its liability rule, Stewart cites the following *dictum* in Krug v. Wanner, 28 *N.J.* 174, 145 *A.*2d 612 (1958):

> *For the protection of its patrons*, every commercial establishment must maintain its premises, including means of ingress and egress, in reasonably safe condition. And although the paved sidewalks fronting a commercial establishment are primarily for the use of the public generally, *their condition is so beneficially related to the operation of the business that the unrestricted legal duty of maintaining them in good repair might, arguably, be placed on it.*
>
> [Stewart, 87 *N.J.* at 159, 432 *A.*2d 881 (quoting Krug, 28 *N.J.* at 179- 80, 145 *A.*2d 612 (citations omitted)) (emphasis added).]

Stewart 's reliance on the dissent in Yanhko and the dictum in Krug underscores an important policy underpinning to its holding: the benefits enjoyed by the "commercial establishment" by use of abutting sidewalks for ingress and egress purposes should impose a concomitant duty to keep those means of ingress and egress in reasonably good repair. *Cf.* Brown v. St. Venantius School, 111 N.J. 325, 334-35, 544 A.2d 842 (1988) (Stewart rule should be extended to private and parochial schools in part because "[s]afe and convenient access to [such schools] is undeniably a necessary component of that defendant's daily activities").

Moreover, since Stewart, New Jersey courts have focused on a second policy consideration: the commercial enterprise's capacity to spread the risk of loss. For example, the Court revisited the Stewart rule in Mirza v. Filmore Corp., 92 N.J. 390, 395, 456 A.2d 518 (1983), and extended it to commercial landowners who unreasonably fail to remove snow and ice from the abutting sidewalk after actual or constructive notice. It also concluded that the newly announced duty under Stewart should be applied retrospectively. Id. at 400.

Referring to traditional factors applied in resolving the retrospective-prospective issue, the Court made the following observation, pertinent here:

> Further, the goal of *spreading the risk* of loss would probably be served either through the increase of future insurance policy premiums, or, *if the commercial property owner has no insurance, through higher charges for the commercial enterprise's goods or services.*
> [Id. at 397, 456 A.2d 518 (emphasis added).]

New Jersey embraced that policy consideration in Borges v. Hamed, 247 N.J.Super. 295, 589 A.2d 169 (App.Div.1991), where the appellate court held that a three-apartment house, occupied by the defendant-owners, the defendant-wife's mother, and the defendant-wife's sister, was not a commercial property as envisioned by Stewart. *Id.* at 296, 589 *A.*2d 169. The court reasoned that the Stewart rule was based on the commercial properties' "nature as profit-making investments and their capacity to spread the risk of injury among tenants and business customers." Id. (emphasis added). Considering the Stewart rule in such a light, the "vertical family" compound in Borges was not considered a commercial property. Id.

What we glean from Stewart and its progeny is an unexpressed, but nevertheless intended limitation to its rule: liability is imposed upon the owner of a profit, or not-for-profit enterprise, regardless of whether the enterprise is in fact profitable. It is the capacity to generate income which is the key. In part, liability is imposed because of the benefits the entrepreneur derives from providing a safe and convenient access for its patrons. Secondly, such an enterprise has the capacity to spread the risk of loss arising from injuries on abutting sidewalks, either through the purchase of commercial liability policies or "through higher charges for the commercial enterprise's goods and services." Mirza, 92 *N.J.* at 397.

These policy considerations simply did not apply in Abraham v. Gupta, 281 N.J. Super. 81 (A.D. 1995), to defendant's vacant commercial lot. The lot was not owned by or used as part of a contiguous commercial enterprise or business.

As for residential property owners, however, the judiciary has been reluctant to impose a tort duty of care and maintenance of a portion of the public domain upon a property owner for no better reason than that the private property is proximate to the public sidewalk, as that would seem to be an arbitrary determination. This reluctance is longstanding. See Stevenson, 'Law of Streets and Sidewalks in New Jersey', 3 Rutgers L.Rev. 19, 25 (1949); Note, Survey of Tort Law – Sidewalk Negligence, 30 Rutgers L. Rev. 782 (1977); Mount v. Recka, supra, 35 N.J. Super. at 380, 114 A.2d 289.

The unrestrictable right of passage on the highway belongs to the public. In principle, therefore, a remedy for injury to a pedestrian caused by improper maintenance thereof should be subsumed under the heading of public liability. The Supreme Court said in Yahnko v. Fane, 70 N.J. at 534, "It should be for the Legislature as representative of the public at large to declare or regulate such liability, not for the courts to impose it on the abutting owner as a convenient subject of liability.

Despite decades of adherence by our courts to the principle enunciated above, the Legislature has not seen fit to impose a per se tort duty on the abutting owner or on the public entity. No satisfactory reason has been advanced for any court to impose such a liability on private owners or on the public entity in absence of legislative authorization.

As the Yahnko Court stated, "The rationale of public use and control formulated above undoubtedly underlies the accordant view of the American Law Institute and the great majority of American jurisdictions against tort liability of the abutting owner who is otherwise without fault or contribution to the accident. Restatement, Second, Torts, Sec. 349, pp. 230-231 (1965); Annot., 88 A.L.R.2d 331, 340-346 (1963); Prosser, Law of Torts (4th ed.1971) 353."

The basic rationale underlying the decisions just cited stems from the longstanding premise that the primary responsibility for providing and maintaining streets and sidewalks resides in the government, according to the Supreme Court in Yahnko, but that governmental liability must be limited for various policy and fiscal reasons beyond the scope of this paper, but alluded to and discussed herein with respect to Christmas v. City of Newark, *supra*, 216 N.J. Super. at 396.

Since the original duty of construction and repair is attributable to the government, breach of the responsibility delegated to a private owner by ordinance is conceived as constituting a breach of duty to the municipality rather than to the public. Otherwise stated, such ordinances are thought to be enacted for the benefit of the government, so that an injured passerby cannot qualify as 'a member of the class for whose benefit the provision was adopted.' The view that such municipal ordinances do not create a private cause of action absent express provision therefor was fully explicated in Fielders v. North Jersey St. Ry. Co., 68 N.J.L. 343, 352 (1902), and was expressly adhered to in Yahnko v. Fane.

Conclusion

Except for the imposition of a duty on commercial property owners toward both passersby and business invitees to keep sidewalks in reasonably good repair and free from ice and snow, New Jersey's rules for abutting property owners (whether private, non-profit or public entities) respecting sidewalk conditions are similar to that of other states, *i.e.*, no liability attaches nor is

any duty owed to keep sidewalks in good repair or free from ice and snow hazards. There is relative uniformity amongst the states with respect to exceptions to this "no liability" rule. Municipal ordinances requiring abutting owners to keep sidewalks in good repair and to clear them of ice and snow in a reasonable period of time after accumulation do not create a duty toward passersby, and no civil liability will attach to their violation; the duty to comply is owed only to the enacting municipality or other public entity.