

## **Appendix H**

### **Onondaga County Settlement Plan Transportation Policies**

**THE ONONDAGA COUNTY TRANSPORTATION POLICY**

This section of the *Plan* describes the policies that will govern the County’s planning of its own transportation infrastructure, and which are recommended for use by individual municipalities as well. It focuses upon the provision and maintenance of a transportation infrastructure that supports the health of neighborhoods, primarily by encouraging pedestrian life.

Land-use patterns and transportation policy are inextricably intertwined, and it is impossible to affect one without addressing the other head-on. Many of the changes in the American built environment over the past fifty years can be linked to transportation planning practices that unintentionally ran counter to the formation and preservation of community. These practices were not designed to undermine community life, but they were the result of transportation policies that could have produced no other outcome. By preferencing vehicular mobility over both accessibility and livability, transportation policy allowed the ever-increasing demands of the automobile to be the primary determinant of regional and neighborhood structure. The results include highways built atop previously viable communities, and standards for residential streets that induce speeds that are too high to support pedestrian life. While this outcome is universally criticized, the policies that created it still hold sway in professional circles, especially in the fields of transportation planning, road design, public works, and emergency services. For that reason, a policy statement is necessary to serve as a foundation for future public decisionmaking on transportation-related issues in Onondaga County.

The policies that follow draw from a collection of recent documents created to reintroduce the goal of community health into transportation planning. They include the *Traditional Neighborhood Code* included herein, the *Charter of the Congress for the New Urbanism*, and the Institute of Transportation Engineers’ *Traditional Neighborhood Development Street Design Guidelines, A Recommended Practice*. The author of this third document, Chester Chellman, co-authored the Policies that follow. They are organized from general to the specific, beginning at the scale of the region, focusing next on the individual neighborhood, and finally addressing the detailing of the streets themselves.

In endorsing the *Settlement Plan*, Onondaga County will use this Transportation Policy as a guide to inform and direct its own transportation planning. Not all of these policies concern issues that are within the control of the County, however. These are included nonetheless in hope that the County’s municipalities, developers, school boards, and other concerned parties might incorporate them into their own planning decisions. Indeed, municipalities that wish for a future in which transportation investments improve neighborhood livability should adopt this Transportation Policy into their local plans.

**TABLE OF CONTENTS**

<u>I. THE REGION</u>		<u>III. THE STREET</u>		
I.1	Intermodal Balance	page 16	III.1 Vehicular / Bicyclist / Pedestrian Balance	page 18
I.2	Mobility vs. Accessibility -- The Role of Land Use	page 16	III.2 Design Speed	page 18
I.3	Induced Traffic	page 16	III.3 Street Widths	page 18
I.4	The Highwayless Town	page 16	III.4 Shared Lanes	page 18
I.5	The Townless Highway	page 16	III.5 Curb Radii	page 19
I.6	Regional Facilities vs. Local Needs	page 16	III.6 Parallel Parking	page 19
I.7	Transit vs. Parking	page 16	III.7 One-Way Streets	page 19
I.8	Park and Ride	page 16	III.8 Curving Streets	page 19
I.19	Bicycle Network	page 16	III.9 Signal Timing	page 19
I.10	Freight Movement	page 17	III.10 Skywalks	page 19
<u>II. THE NEIGHBORHOOD</u>		III.11 The Transect	page 19	
II.1	The Neighborhood Structure	page 17	III.12 Sidewalks	page 19
II.2	School Transportation	page 17	III.13 Crossings	page 19
II.3	Networks vs. Cul-de-sacs	page 17	III.14 Street Trees	page 19
II.4	Block Size	page 17	III.15 Lighting	page 20
II.5	The A/B Network	page 17	III.16 Shielded Parking	page 20
II.6	Traffic Calming	page 17	III.17 Parking Lot Quality	page 20
II.7	Traditional Intersections	page 17		
II.8	Rear Lanes	page 18		
II.9	Nature Preservation/Celebration	page 18		
II.10	On-Site Parking	page 18		
II.11	Reduced Parking Requirements	page 18		
II.12	Shared Parking	page 18		

## I. THE REGION

The structure of the region and the livability of its neighborhoods is determined in significant measure by the structure of its transportation network. The policies below address those issues that must be considered when planning transportation at the regional scale.

### I.1 Intermodal Balance

*Transportation planning should seek to attain a healthy balance between transportation modes, including cars, transit, bicycles, and walking.*

Like most places, Onondaga County has for many years focused on the private automobile as the primary means of transportation. More recently, the true costs of a car-dominant society have become apparent, as described in this *Settlement Plan*. While it is unrealistic to suggest that the car will soon cease to be necessary in Onondaga County, the costs of automotive orientation could be mitigated by focusing County policy on achieving a better balance among the full range of transportation modes. This focus on intermodal balance should underlie all regional-scale planning in the County.

### I.2 Mobility vs. Accessibility -- The Role of Land Use

*Transportation planning should maintain as its primary goal the enhancement of all people's access to their daily needs.*

Transportation planning has for years focused primarily on "automobility": the provision of roadways to allow easy automotive access to destinations. Lately, the emphasis has shifted from automobility to *mobility*, the provision of multiple modes of transportation to provide such access. But most recently, planners have come to realize that *mobility* is secondary to *accessibility*: the ability to access ones daily needs with the minimum amount of travel and cost. In many cases, access is best enhanced not through the provision of mobility but through the avoidance of single-use zoning in favor of a fine-grained mix of land uses. The first consideration should be how to enhance access without necessarily enhancing mobility.

### I.3 Induced Traffic

*All new roadbuilding and road-widening proposals should be evaluated in light of the phenomenon of Induced Traffic.*

Induced Traffic is a recently-documented phenomenon acknowledged by transportation experts but often not considered in local planning decisions. It pertains to how most roadbuilding efforts intended to reduce traffic congestion fail to do so because the new roadway capacity is quickly absorbed by those drivers who were choosing not to drive because of the congestion. It was demonstrated in a study covering thirty California counties between 1973 and 1990 which found that, for every 10 percent increase in roadway capacity, traffic increased 9 percent within four years time. If Induced Traffic were fully considered as part of federal policy, many investments in new roadway infrastructure would perhaps be directed instead towards the repair of existing roadways or to other civic infrastructure. As a matter of policy, all new roadway construction designed to increase capacity should be studied in light of Induced Traffic.

### I.4 The Highwayless Town

*High-speed roadways should not be allowed to pass through neighborhoods.*

Norman Bel Geddes, the designer of the U.S. Interstate system, declared in 1939, "Motorways must not be allowed to infringe upon the city." Where they do provide access to the city and other neighborhoods, highways must take on the low-speed geometries of avenues and boulevards, so as to not destroy pedestrian viability. As is evident, this rule was often forgotten throughout the United States, most obviously with the insertion of elevated interstates through city centers. Also quite damaging, though less obvious, has been the repeated widening of state and county roads to accommodate through-commuting to the detriment of local pedestrian life. This latter practice must be avoided -- and in some cases reversed, as in Liverpool -- if the County's neighborhoods are to thrive. High-speed roadways are often appropriate, but not within neighborhoods.

### I.5 The Townless Highway

*Rural highways should be kept free of roadside development.*

As the highway should not enter the town, so should the town not allow itself to grow along the highway. Where high-speed roads pass through the countryside, roadside development should be discouraged, since it impedes through-traffic and blights the countryside. Roads intended for through-traffic should be acknowledged as such and protected from such use wherever possible. As discussed in the *Regional Plan*, any development along such roads should be concentrated in Hamlets at intersections. The *Plan* describes at length how such development can be encouraged.

### I.6 Regional Facilities vs. Local Needs

*Roads should be planned to serve regional transportation goals, but these goals should not be allowed to trump the local need for healthy neighborhoods.*

As described in *The Highwayless Town* (I.5), regional transportation goals must be questioned if they cause high-speed roadways to pass through neighborhoods. Most often, the proper solution is not the victory of the neighborhood or of the regional roadway, but the placement of the roadway at the neighborhood edge such that all needs are met. It must be remembered that ease of movement is of little value in the absence of worthy destinations.

### I.7 Transit vs. Parking

*The provision of parking facilities in urban centers should be considered in light of the fact that ease of parking discourages the use of transit.*

While large-scale parking lots and on-site parking requirements may be appropriate for certain urban locations, they should not be considered in ignorance of their effect on transit ridership. Clearly, any new large parking lot, roadway, or other facility which eases automotive commuting will reduce demand for transit. Where efforts are underway to increase transit ridership, and such transit indeed provides a viable alternative to driving, parking facilities should not be encouraged.

### I.8 Park and Ride

*Due to the ineffectiveness of park-and-ride programs, transit planning should focus on receiving riders as pedestrians.*

A 1978 study found that park-and-ride lots in and near Syracuse reduced weekday vehicle-miles traveled by less than 1%. This is not surprising, as park-and-ride programs have rarely proven effective outside of the most heavily urbanized areas. In most places, for transit to be well-used, riders must start as pedestrians. The best way to achieve this end is to reinforce the neighborhood structure of areas around transit stops, such that they contain the widest possible range of uses in a walkable environment. Once again, transportation needs can best be addressed in the context of land-use practices.

### I.9 Bicycle Network

*Most destinations within the County should be accessible via bicycle in a thorough network of bike trails, bike lanes, and bike routes.*

*Bike trails* are dedicated travel paths detached from high-speed roadways. *Bike lanes* are dedicated lanes within moderate-speed roadways. *Bike routes* -- the majority of thoroughfares -- are low-speed streets that bicycles share with other traffic. While not every thoroughfare can or should provide bicycle access, the bicycle network of trails, lanes, and routes should provide access throughout the County. *The emphasis need not be on creating many expensive bike trails and lanes; a few key routes, combined with low-speed neighborhood streets, can constitute an effective network.* This network should be supplemented by the provision of secure bicycle parking facilities at major civic, work, and retail destinations. While bicycle ridership is not widespread in Onondaga County, the County's transportation decisions should acknowledge that such ridership is unlikely to increase in the absence of an effective bicycle infrastructure.

### I.10 Freight Movement

*Rail and Canal shipment of goods should be encouraged for freight movement, and large trucks should be discouraged from within neighborhoods.*

It has been calculated that shipping goods by rail requires one fifteenth the amount of fuel that is needed to do so by truck. Given the economic and environmental inefficiency of trucking -- and its contribution to traffic congestion -- alternative modes of shipping should be encouraged. To the contrary, the U.S. Government, primarily through the construction and maintenance of roads, subsidizes the trucking industry approximately \$300 billion per year. Given the circumstances, the County should make efforts to make rail and barge shipment more attractive. For local truck deliveries, where the presence of large trucks can damage neighborhood walkability, municipalities can choose to demand the use of smaller vehicles by distributors.

## II. THE NEIGHBORHOOD

**Central to the Onondaga County Settlement Plan is a focus on the preservation and enhancement of neighborhoods. This objective in no way runs counter to the provision of an effective transportation network. However, to avoid undermining neighborhood health, transportation planning must be informed by a thorough understanding of the structure and function of neighborhood environments.**

### II.1 The Neighborhood Structure

*Transportation planning decisions should be made based upon an understanding of the traditional neighborhood as the fundamental pattern of settlement.*

Often, transportation decisions that damage neighborhoods are the result not of misplaced priorities -- regional facilities trumping local needs (1.7) -- but of an innocent misunderstanding of the neighborhood structure: the location of its center and edges. This is particularly likely in areas where that structure has already been undermined by previous planning efforts. To avoid this error, transportation planners working in settled areas should begin their investigations by mapping the locations of existing neighborhood centers and edges. Once this structure is fully apprehended, planners can work with confidence that their efforts do not compromise pedestrian viability. Indeed, the proper identification of a neighborhood edge could perhaps serve to justify the improvement of a roadway to a higher-volume standard.

### II.2 School Transportation

*School planning decisions within the County should be made with due consideration to the burden placed upon roadways by school buses and parental drop-offs.*

One need only drive to work on a school holiday to recognize what a great percentage of commuting-time trips are the result of children not being able to walk to school. The traditional concept of the neighborhood school within walking distance has until recently been forgotten in a nationwide trend towards large-scale education warehouses. Decisions to consolidate schools at an anti-pedestrian scale are often made in ignorance of the cost of busing -- estimated at \$400 per student annually -- and the undue burden that regional school commuting places on roadways. To the degree that the County is able to influence educational facility policy, it should encourage the preservation and creation of smaller schools within walkable neighborhoods.

### II.3 Avoiding Cul-de-sacs

*Cul-de-sac (dead-end) streets are to be discouraged, as they overburden adjacent roads, damage social capital, and limit emergency-vehicle access.*

While cul-de-sacs provide an environment of minimal traffic, they create a larger system in which very few roads carry the majority of the traffic and quickly become overburdened. They also limit emergency vehicle

access, since there is only one path to each destination, and add to the costs of policing, school busing, snow plowing and mail delivery. Finally, sociological studies have demonstrated conclusively that fewer neighborhood social ties are generated when pedestrian through-motion (from both ends of a street) is not possible. For these reasons, new thoroughfares within the county should connect to other thoroughfares at both ends unless prohibited by impassible site conditions.

### II.4 Block Size

*Within new developments, blocks should generally be small, typically less than 2000 feet in circumference.*

Pedestrian activity is encouraged by a porous network of multiple paths between destinations. The most walkable towns and cities have small blocks; for example, Portland, Oregon has blocks 800 feet in circumference. While it is less expensive to build long blocks with fewer connections, these create inferior communities. Where long blocks are unavoidable due to natural conditions, mid-block pedestrian cut-throughs should be encouraged.

### II.5 The A/B Network

*Transportation planning should be made in light of an understanding of each thoroughfare's classification as Pedestrian Priority or Vehicular Priority.*

As previously described, streets within neighborhoods should be designed primarily to support pedestrian life, while streets outside (and between) neighborhoods may be designed primarily as automotive corridors. Pedestrian-friendly thoroughfares can be classified as "A Streets", while automotive corridors can be classified as "B Streets." A large number of B Streets is possible, as long as the A streets form a continuous network of uninterrupted walkability. Once this A/B mapping is made, wise planning decisions can be made about which thoroughfares are able to accept vehicular-oriented or pedestrian-oriented improvements.

### II.6 Traffic Calming

*Traffic Calming should be considered to retrofit streets which are plagued by speeding, but new thoroughfares can avoid the need for such efforts by being designed to lower-speed specifications.*

An entire discipline within transportation engineering has arisen in order to compensate for the widespread error of placing high-design-speed streets in otherwise walkable neighborhoods. Traffic Calming includes the construction of speed bumps, speed tables, chicanes, bulb-outs, roundabouts, and other impediments to through traffic in streets which are typically too wide. These expensive remedies are indeed useful in situations in which speeding is a problem, and should be considered fully. But greater efforts should be made to build and protect streets and intersections which result naturally in slower driving speeds. These are addressed more fully in Policies II.7 and III.1 - III.9.

### II.7 Traditional Intersection Design

*Traditional intersection design should be considered as a way to calm traffic in new neighborhoods.*

Forks, staggered intersections, triangles, and other quirky traditional street configurations were once a mainstay of neighborhood design. More recently, with the prioritization of through-travel over walkability, these low-speed, low-volume intersections were ruled out in favor of a limited selection of simple configurations -- essentially right-angle crosses and T's. These intersections are indeed simpler, but their contribution to vehicular or pedestrian safety has not been proven. While it would be equally unjustified to discard such intersections in favor of quirky traditional configurations, traffic engineers should not rule out the latter as legitimate options within neighborhoods unless they can demonstrate a likelihood of increased risk.

## II.8 Rear Lanes

*In the construction of new neighborhoods of moderate density or higher, rear lanes should be built to avoid a streetscape of garage doors.*

The city of Portland, Oregon recently outlawed “snout houses” -- houses whose front facade consists primarily of garage doors -- citing their contribution to an unfriendly, sociofugal environment. Also common in Onondaga County, the garage-front house is the inevitable result of placing a 24'-wide garage on a 50' lot. While a larger lot can absorb a garage more easily, lots 50' wide or less should be accessed by a narrow rear alley (typically 12' of pavement in a 24' right-of-way) to avoid the snout-house syndrome.

## II.9 Nature Preservation/Celebration

*The trajectory of new thoroughfares should be based upon the preservation of natural features and the display of site amenities to their best advantage.*

Too often, new streets are laid with inadequate consideration given to the preservation of natural topography, trees, and other site features. Instead of laying streets “lightly on the land,” developers resort to mass grading, which kills trees and promotes erosion. Similarly, the beauty of a site is often hidden from view by, for example, placing the best views behind private houses rather than leaving them accessible to all. Builders that wish to maximize the value of their properties will place their new thoroughfares in a way that both preserves and celebrates nature.

## II.10 On-Site Parking

*While necessary in the auto-oriented suburbs, the on-site parking requirement can be harmful to downtown areas that wish to encourage pedestrian activity.*

The renowned planner Neil Pierce has noted, “no great city has ever protected parking as an important right.” As already discussed, the generous provision of parking discourages the use of alternative modes of transportation and also tends to create an unpleasant streetscape lined by parking lots. It also can result in empty sidewalks, since all visitors park directly adjacent to their destinations. In areas where transit and pedestrian activity are present but in need of enhancement, municipalities should consider eliminating requirements for on-site parking provision.

## II.11 Reduced Parking Requirements

*Reduced parking requirements should be considered for new developments that mix uses.*

Suburban parking ratios of spaces-per-square-foot are necessary in areas where everyone drives, but they also tend to create environments in which no one will walk. Conversely, if one creates transit-viable environments in which walking is a pleasure, fewer parking spaces will be necessary. In encouraging pedestrian-friendly mixed-use areas, municipalities should lower these ratios to fully take into account shared parking (II.12), on-street parking, and reduced auto-dependence.

## II.12 Shared Parking

*Shared parking, the greatest contribution to reduced parking needs, should be taken fully into account.*

As noted above, mixed-use areas benefit from shared parking, in which complementary schedules allow spaces to do double or triple duty. For example, a single space may serve an office worker during the day, a resident overnight, and shoppers during rush hour. Interestingly, in a truly urban environment, these could all be the same person, who then might not need to own a car at all. The parking efficiency of mixing complementary uses has been estimated as high as 170%, allowing the elimination of potentially three-fifths of the spaces planned. Municipalities should offer such reductions as an incentive for the creation of mixed-use environments. *The Settlement Plan's TND Code* includes a table for calculating shared parking ratios.

## III. THE STREET

**When one thinks of a neighborhood, one thinks first of its streets. Far from being simply conduits for vehicles, a neighborhood's streets are its public spaces. As such, their design must take into consideration the needs of all of their users, particularly pedestrians. The policies that follow address the design of streets within neighborhoods with the goal of enhancing neighborhood livability.**

### III.1 Vehicular / Bicyclist / Pedestrian Balance

*Street design should reflect the goal of accommodating pedestrians and bicyclists as well as automobiles.*

In recent years, streets have been designed by traffic engineers with the sole objective of moving cars. As a result, pedestrian and bicycle use suffered, as did the performance of businesses along them. It must be remembered that, in addition to being traffic ways, streets are also the location of American civic life. Within neighborhoods, streets should be designed with the interdisciplinary goal of supporting the widest variety of uses, not just driving. In most cases, this approach means providing narrow (slower speed) travel lanes, on-street parking, continuous tree cover, and ample sidewalks.

*This policy, like many below, is reflected in the Thoroughfare Standards (Table B2) of the TND Code. Please refer to these for further illustration.*

### III.2 Design Speed

*Thoroughfares accessible to pedestrians should have a design speed under 45 mph, and thoroughfares within neighborhoods should have a design speed under 30 mph.*

Pedestrians do not feel comfortable walking where cars are speeding. Further, most drivers will not obey speed limits if a street is designed for higher speeds. The only sure way to control speeds in pedestrian environments is through the width, curvature, and detailing of the vehicular cartpath. While higher speeds should be allowed in strictly automotive environments, low-speed geometrics should be used to control speeds within neighborhoods.

### III.3 Street Widths

*The widths of new and reconfigured streets should reflect their desired design speed.*

Far from increasing safety, wider driving and parking lanes ease vehicular motion and encourage speeding on residential streets. Within neighborhoods, driving lanes should not exceed 10' in width, and parking lanes should not exceed 7' in width (including the gutter). In certain conditions, 8' and 9' driving lanes should also be considered.

### III.4 Shared Lanes

*In limited-density residential neighborhoods, individual striped lanes should be replaced by a single shared lane that accommodates travel in both directions.*

The standard highway engineers' manual, the AASHTO “green book,” recommends shared lanes “where single-family units prevail,” and describes them as containing a single 12' center lane flanked by parking lanes. By this measure, a roadway in a residential neighborhood should be 19' wide if it has parking on one side, 26' wide with parking on both sides. These measurements are often fought by fire departments, who demand a 20'-clear travel lane for their trucks, in order to speed response time. This objection was refuted by the recent Swift Report (of Longmont, Colorado), which demonstrated over an eight-year study how narrower streets increase public safety, and how fire response time was a statistically insignificant factor in this relationship. For this reason, new streets whose primary purpose is to provide access to single-family houses within neighborhoods should employ the single shared travel lane.

**III.5 Curb Radii**

*Within neighborhoods, the radius of curvature of the curb at intersections should generally not exceed 15'.*

Current roadbuilding ordinances tend to promote large curb radii, which ease large-vehicle access, but increase pedestrian crossing distances while allowing cars to speed around corners. For this reason, curb radii on new or rebuilt streets should be no larger than necessary to accommodate the largest vehicle that will typically use the street, which is most often a garbage truck. Within neighborhoods, where low-speed travel is encouraged, such vehicles can be expected to temporarily cross into the opposing travel lane in order to make a tight turn -- particularly fire trucks with sirens. As long as such access is provided, curb radii of 15, 10, and even 5' are often appropriate.

**III.6 Parallel Parking**

*Except in rural areas, all new and rebuilt streets should contain parallel parking on at least one side.*

Parallel parking protects pedestrians from traffic, causes cars to drive more slowly, reduces requirements for on-site parking, and increases pedestrian activity. Depending on the use and density of the neighborhood, parallel parking should be provided on one or both sides of the street, marked or unmarked. (Typically, when a shared travel lane (III.4) is used, the parking lanes are not marked.) All main streets in retail areas should of course have parking on both sides, and head-in parking may be justified in downtowns.

**III.7 One-Way Streets**

*One-way streets should generally be avoided, particularly multiple-lane one-ways.*

Like most American cities, Syracuse has reconfigured many of its downtown streets to one-way in order to speed through-traffic. The reversal of such reconfiguration is the first step that many American cities take in order to revitalize struggling downtown areas. Multiple-lane one way streets damage pedestrian life by encouraging speeding, and damage businesses by distributing evening traffic unevenly. One way streets are only justified when the paved surface (including parking) is too narrow to accommodate the level of through-traffic desired.

**III.8 Curving Streets**

*Street curves, rather than being randomly imposed, should result from topography and not create undue disorientation.*

Contemporary subdivisions tend to include randomly curving streets that disorient drivers. These are provided in order to terminate vistas, but that goal is better achieved through the use of traditional intersections, such that relatively straight streets aim at site features or notable buildings. On steep topography, however, curving streets are necessary to avoid mass grading, and these should be allowed to curve very tightly in recognition of design speeds as low as 10 mph.

**III.9 Signal Timing**

*Most traffic signals within neighborhoods should be timed on cycles no longer than 60 seconds.*

Current traffic management practice encourages the lengthening of traffic light cycles in order to limit interruptions to through traffic. While this approach is appropriate for highways, it causes great pedestrian and driver frustration in urban areas, discouraging walking and promoting speeding and "road rage." Just as maximum through-flow is not the only criteria for street design, it is not the only criteria for traffic management. Within neighborhoods, signal timing should be limited to encourage walking and ease driver frustration.

**III.10 Skywalks**

*Skywalks and underground passages should not be provided when sidewalk access is safe and convenient.*

A futuristic idea that has come and gone, skywalks and other sidewalk substitutes are only appropriate when no other safe passage is possible, as they create a redundant system than robs sidewalks of pedestrian life and undermines retail viability.

**III.11 The Transect**

*New and rebuilt streets should be detailed in a manner that reflects their relative position in the Urban-Rural Transect.*

Illustrated in the *Settlement Plan* (page 13), the Transect describes how every aspect of the built environment changes as one moves from the country to the city. Sidewalks become wider, trees become more regular in their species and placement, open swales become closed curbs, parking spaces are striped, and building setbacks shorten as one nears a downtown area. Current subdivision guidelines tend to impose a universal standard that neglects these transformations, an error that should be avoided in new street construction.

**III.12 Sidewalks**

*Within neighborhoods, most thoroughfares should include sidewalks on both sides.*

In some cases, a low-traffic road can support both cars and pedestrians within the same paved area. Such a road is called a *Woonerf*, and is built with such a low design speed that such interaction makes sense. In other cases, low-density roads at the edges of neighborhoods, a one-sided sidewalk may be appropriate due to extremely light pedestrian load. But otherwise, all residential and commercial thoroughfares within neighborhoods need sidewalks on both sides. Sidewalks should normally be 5' wide in residential areas, increasing in width with residential density, and reaching a minimum 10' width on retail streets.

**III.13 Crossings**

*All high-traffic areas expected to support pedestrian life should have marked pedestrian crossings.*

While most intersections within downtown Syracuse are well marked, other heavily-used crossings within the County do not provide adequate indication of the pedestrian right-of-way. Any intersection that receives both heavy vehicular traffic and heavy pedestrian traffic should be striped; where crossing is deemed a hazard, they should be signalized. Bricked crosswalks may be appropriate in the most urban areas, but it is better to stripe many crossings than to brick only a few.

**III.14 Street Trees**

*All streets should be lined with trees in order to enhance the experience of both pedestrians and drivers.*

With the exception of very narrow urban streets and passages with inadequate space, all streets and paths should be lined on both sides with deciduous trees at an average spacing distance no greater than 30' on center. In suburban areas, such trees should be located in a continuous tree strip between the curb and the sidewalk; in urban areas, such trees should be planted in sidewalk grates. This suggestion is perhaps not compelling from a transportation-planning point of view, but it is very important from a livability and tourism point of view.

**III.15 Lighting**

*Streetlighting in pedestrian areas should respond to the Transect, and should achieve desired lighting levels through the use of smaller light standards.*

While infrequent powerful lights are the most efficient way to provide night illumination, they create an environment that discourages pedestrian activity and can thus contribute to crime. The solution is to use small light standards -- typically 8' to 15' tall -- in a frequency appropriate to the urbanity of the location. In a city center, a 30' on-center spacing may be appropriate; in rural suburbs, lights may be limited to intersections; in the country, lights may be eliminated entirely. Only in strictly vehicular areas are large, powerful light standards appropriate.

**III.16 Shielded Parking**

*Parking lots and structures should be shielded from view of sidewalk, by habitable building or, where this is not possible, by attractive walls or greenery.*

There is little greater deterrent to pedestrian life than an exposed parking lot or structure. All new parking structures should be designed to face the street with habitable building -- typically retail -- on at least the ground story. Upper stories, when not lined by apartments or offices, should be detailed in a manner befitting occupied buildings. All new surface parking lots should be hidden behind at least a thin layer of buildings; where this is not possible, the inferior solution of a decorative wall or shrub is preferable to no edge at all.

**III.17 Parking Lot Quality**

*Surface parking lots should contain trees in ratio adequate to provide significant shade.*

While they are a detriment to street life, parking lots are still public spaces and should be detailed as such. The most efficient way to enhance the parking environment is to provide trees between parking rows as along a street, at a typical distance of 30' on center. An alternative solution places tree-lined pedestrian passageways at cross-grain to the parking rows. Either approach contributes tremendously to the parking experience.