

---

ONONDAGA COUNTY  
SETTLEMENT PLAN

TRADITIONAL NEIGHBORHOOD DEVELOPMENT  
GUIDELINES

---

Prepared by:

DUANY PLATER-ZYBERK & COMPANY  
ARCHITECTS AND TOWN PLANNERS

ENVIRONMENTAL DESIGN AND RESEARCH  
LOCAL PLANNER

2001

Prepared for:

THE SYRACUSE-ONONDAGA COUNTY PLANNING AGENCY  
1100 Civic Center  
421 Montgomery Street  
Syracuse, New York 13202

Phone: 315.435.2611  
E-Mail: [onsocpa@nysnet.net](mailto:onsocpa@nysnet.net)

**THE ONONDAGA COUNTY SETTLEMENT PLAN**  
prepared for the

**SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY**  
by

**LEAD PLANNER: Duany Plater-Zyberk & Company**

Andres Duany, Principal  
 Jeff Speck, Project Director  
 Jorge Planas, Project Manager  
 Mike Watkins, TND Code Specialist  
 Robert Alminana  
 Marilyn Avery  
 Mauricio Castro  
 Colin Greene  
 Amanda Houser  
 John Massengale  
 Gaither Pratt  
 Natasha Quintanilla  
 Joy Rackley  
 Debra Rodgers  
 David San Roman  
 Edgar Sarli  
 Galina Tahchieva  
 Michael Morrissey

**LOCAL PLANNER: Environmental Design and Research**

David Crandall, President  
 Jo Anne Gagliano, Principal  
 Doug Gerber  
 Cortland Read  
 Rob Seeley  
 Mariane Wheatley-Miller

**TRANSPORTATION CONSULTANT: White Mountain Survey**

C. Rick Chellman, President

**REGULATORY CONSULTANT: Woodlea Associates**

Joel Russell, President

The Settlement Plan would not have been possible without the assistance of the following individuals, groups, and businesses:

**Nicholas J. Pirro, County Executive**  
**William Sanford, Chairman, Onondaga County Legislature**  
**Karen B. Kitney, Director, Syracuse-Onondaga County Planning Agency**

**Members of the Settlement Plan Steering Committee**

Hugh Lordon, Chairman	Cheryl Patt
Bruce Abbey	Richard Robb
William Bell	Mary Rowlands
William Camperlino	William Sanford
Michael Cunningham	Vito Sciscioli
Robert Doucette	Helen Stevens
Michael Falcone	Douglas Sutherland
Robert Haley	David Stoner
Marcia Harrington	Bruce Trexler
Richard Hawks	Michael Waters
Ann Higbee	Donald Western
Kenneth Jackson	Fred Zolna
Karen Kitney	

**Sponsors**

Onondaga County  
 Onondaga County Water Authority  
 Onondaga County Industrial Development Agency

**Printing of Documents**

Niagara Mohawk Power Corporation

**Distribution of Documents and Outreach Activities**

Syracuse Metropolitan Transportation Council

**Contributors to the Design Charrette**

OnCenter  
 The Central New York Regional Transportation Authority  
 Onondaga County Department of Parks and Recreation

**Legislative and SOCPA Staff**

Nancy A. Field, Legislative Aide  
 Cathy Clarke, Stenographer II  
 Karen Novak, Administrative Assistant  
 Don Jordan, GIS Administrator  
 Douglas Morris, Planner IV  
 Bruce Johnson, Planner IV  
 Michael Conway, G.I.S. Specialist  
 Anne-Marie Kennedy, Administrative Intern

## ONONDAGA SETTLEMENT PLAN

### EXECUTIVE SUMMARY

The Onondaga County Settlement Plan was completed over a two-year period beginning in 1999. Its intention from the start was to create a document that would encourage and enable the thirty-five municipalities of Onondaga County to improve their residents' quality of life through a renewed emphasis on neighborhoods. Specifically, the Plan began by acknowledging that the County's greatest strength was its tradition of historic neighborhoods, and then focused on providing the tools that could most effectively reinforce that tradition. It was preceded and inspired by the County's *2010 Development Guide* -- adopted as the County Plan in 1998 -- which emphasized the goal of cost-efficient infrastructure, and recognized how that goal mandated the reinforcement of existing urban centers. This Settlement Plan was created to move the intentions and policies of the 2010 Development Guide into concrete action.

This Plan begins with the recognition that, in its long history, Onondaga County has experienced only two models of growth: the traditional neighborhood and suburban sprawl. The dominant model until the second world war, the traditional neighborhood is characterized by its diversity of use, pedestrian scale, and clear identity. The dominant model in recent years, suburban sprawl is characterized by the strict separation of land uses, the resulting dependence on the automobile, and a feeling of placelessness. While the neighborhood model -- represented by the County's towns, villages, hamlets, and urban neighborhoods -- is associated with the high quality of life which many residents enjoy, suburban sprawl is associated with an erosion of that quality of life, best represented by increased traffic, decreased environmental quality, excess taxation for infrastructure, and inner-city deterioration. The *Onondaga County Settlement Plan* represents the determination of the County and its citizens -- as demonstrated in the *2010 Development Guide* -- to limit suburban sprawl in favor of the traditional neighborhood model of growth.

This is an ambitious task, but the *Onondaga County Settlement Plan* brings together a series of planning tools that have been demonstrated to affect positive change elsewhere. In the hands of effective leadership, these documents will prove more than adequate to the task of redirecting the County's growth. The documents that comprise the *Settlement Plan* are as follows:

#### The Regional Plan

Most planning decisions in Onondaga County are made at the local government level. This degree of autonomy is beneficial in that it allows individual towns and villages to enact change with great efficiency, but it ignores the fact that most people live their lives at the scale of the metropolis, sometimes crossing jurisdictional boundaries several times a day. Similarly, natural systems such as rivers and wildlife corridors pay no attention to lines on a map. For these reasons, certain decisions made at the local level must refer to a larger vision of the structure of the metropolis. This vision is provided in the *Regional Plan*. In addition, the *Plan* acknowledges the primary way in which the County does have influence on growth, through its transportation policy. Most settlement patterns are the direct result of transportation infrastructure, and thus the County can most directly curtail suburban sprawl through its own road-building strategy. The Transportation Policies included herein is intended to direct the County's infrastructure expenditures while also providing a model for local municipalities to emulate in their own road-building decisions.

Because they are an essential part of the Regulating Plan, the Pilot Projects should always be distributed bound to the Plan.

#### The Pilot Projects

Municipalities within the County face a variety of planning dilemmas: how to preserve farmland; how to revitalize struggling urban neighborhoods; how to redevelop abandoned industrial sites; how to reclaim a neighborhood from high-speed traffic; how to replace a dying mall; how to humanize a commercial strip; how to grow a village or hamlet in a way that strengthens its character. In order to address these abstract issues in a concrete way, *Pilot Projects* were commissioned at specific locations. Each *Project* by necessity presents a somewhat customized solution, but also demonstrates a generic approach and technique that can be used in similar situations throughout the County.

#### The Traditional Neighborhood Development Code

Onondaga County has experienced half a century of suburban sprawl. While some of this unhealthy growth can be attributed to a lack of planning, almost all of it occurred in direct accordance with existing zoning and subdivision regulations that effectively outlaw traditional neighborhood development. Clearly, an alternative set of regulations are necessary to allow and encourage the construction, extension, and revitalization of the County's neighborhoods. Such regulations were first created over a decade ago, and have been continuously refined and most recently customized to the conditions of Onondaga County. Those municipalities that wish to provide an alternative to suburban sprawl will adopt the *Traditional Neighborhood Development Code* provided here and incentivize its use.

#### The Traditional Neighborhood Development Guidelines

The *TND Code* is a technical document designed to attain specific built results in a heavily regulated legal environment. As such, it is written in a way that expedites its use, not in a way that fully explains its intentions or teaches its users the general principles and techniques of community-making. This role is played by the *TND Guidelines*, which are designed to quickly and easily communicate the philosophy and practice of Traditional Neighborhood Development. As a guideline, it is more descriptive and less precise than the Code, and is best used as an educational tool for citizens, public servants, and developers. It should be distributed as widely as possible.

Taken together, the four documents of the *Settlement Plan* provide a complete toolkit for Onondaga County's return to the traditional neighborhood pattern of growth. Most American counties are suffering from suburban sprawl, but Onondaga County has shown unique initiative in creating this *Plan*; if it is followed, the area could become a model for the nation. Now the task falls to the City of Syracuse and the individual towns and villages within the County to make use of these tools in their own way. The Syracuse-Onondaga County Planning Agency stands ready to assist them in adapting this Plan to their local situations.

## TRADITIONAL NEIGHBORHOOD DEVELOPMENT GUIDELINES EXECUTIVE SUMMARY

The *Traditional Neighborhood Guidelines* presented here represent a thorough primer on healthy growth. As such, they are of interest to planners, developers, mayors, councilors, planning-board members, engineers, architects, homebuilders, and anyone else directly or indirectly involved in the creation of physical community. This list includes public works directors and police and fire chiefs, whose day-to-day decisions often effect the public realm in unexpected ways. These *Guidelines* were written as a part of this *Settlement Plan* in order to complement the necessarily legalistic *TND Code* with a more user-friendly summary of the principles and techniques of Traditional Neighborhood Development. Although initiated specifically for Onondaga County, they are currently being reformatted in book form as *The Smart Growth Manual*, to be published by McGraw Hill in fall, 2001.

### How To Use These Guidelines

These Guidelines were created to inform the development and redevelopment of the built environment at every scale, from the region to the building. They begin at the scale of the metropolis, and move gradually inwards to the scale of the neighborhood, to the scale of the street and, eventually, to the scale of the house. For this reason, they have something to offer designers, builders, and regulators of almost every aspect of the built environment. The question in any given situation is not which aspects of the Guidelines are valid, but which aspects of the guidelines can be applied.

For example, the developer of a new mixed-use project of several hundred acres would begin working at the scale of the region; the developer of a five-acre subdivision would begin working at the scale of the public street; and the individual homebuilder would begin working at the scale of the private streetscape. In each case, the user, while acknowledging the limited scope of his or her efforts, should also recognize that good design is necessary at every scale if the built environment is to be successful. The individual developer or builder is not expected to satisfy provisions which are beyond his grasp, but it is the burden of that individual developer to demonstrate that this is indeed the case. Indeed, some of the provisions that follow pertain to issues — such as school size — that are simply not controlled by the designer, the developer, or the reviewing municipality. In such cases, these parties should together lobby the appropriate authorities to institute change.

These Guidelines are summarized and supported by The TND Checklist, which is included in Appendix A.

### What Is Traditional Neighborhood Development?

The term Traditional Neighborhood Development (TND) refers to villages, towns, and cities that are made up of traditional neighborhoods. In terms of greenfield development or brownfield redevelopment, TND mandates that new projects be organized along the lines of traditional neighborhoods, with mixed use centers, a network of through streets, public spaces, and the like. This objective is easily achieved if one is designing a large area, perhaps 50 acres or more. Smaller sites, however, present more difficulty in achieving traditional neighborhood design, as they may not be large enough to allow for a full range of uses. In these cases, it is important to implement those TND principles that apply to the smaller scale, while working with local authorities to coordinate the design effort with neighbors, so that a healthy larger picture can emerge. Each smaller parcel, to be considered a TND design, must be designed for eventual integration into a larger TND surrounding it.

In terms of urban redevelopment and revitalization, the rules of TND are fairly simple. Because most older neighborhoods were built according to the principles of TND, the contemporary application of TND principles to those neighborhoods should only serve to enhance their original character. Many struggling neighborhoods are suffering primarily from the application of suburban design techniques — such as road widenings and the introduction of front parking lots — where they do not belong. The application of TND principles to these places typically means the reintroduction to urban area the principles of TND, the contemporary application of TND principles to those neighborhoods should only serve to enhance their original character. Many struggling neighborhoods are suffering primarily from the application of suburban design techniques — such as road widenings and the introduction of front parking lots — where they do not belong. The application of TND principles to these places typically means the reintroduction to urban areas of truly urban design techniques, as will be described ahead.

Credits	Page 1
Executive Summary	Page 2
Forward	Page 5
Chapter 1: The Regional Structure	Page 7
Chapter 2: The Natural Context	Page 9
Chapter 3: Land Use	Page 12
Chapter 4: Public Buildings and Spaces	Page 15
Chapter 5: The Thoroughfare Network	Page 17
Chapter 6: Street Design	Page 20
Chapter 7: The Public Streetscape	Page 23
Chapter 8: The Private Streetscape	Page 26
Chapter 9: Parking	Page 30
Chapter 10: Housing	Page 33
Chapter 11: Privacy	Page 35
Chapter 12: Architectural Syntax	Page 37
Appendix A: The TND Checklist	Page 39

## TWO WAYS TO GROW

These Guidelines address the distinctions between two different models of urban growth: the *traditional neighborhood* and *suburban sprawl*. These two models are polar opposites in appearance, function, and character: they look different, they perform differently, and they affect us in different ways.

The *traditional neighborhood* was the fundamental form of settlement on this continent through the Second World War. It continues to be the dominant pattern of habitation outside of the United States, as it has been through history. The traditional neighborhood — represented by mixed-use, pedestrian-friendly communities of varied population, either standing free as a village or grouped into towns and cities — has proven to be a sustainable form of growth. It allowed us to settle the continent without bankrupting the country or destroying the countryside in the process.

*Suburban sprawl*, now the standard North American pattern of growth, ignores historical precedent and human experience. It is an invention, conceived by architects, engineers, and planners, and promoted by codes developers and codes from World War II to the present. Unlike the traditional neighborhood model, which evolved organically as a response to human needs, suburban sprawl is an idealized artificial system. Unfortunately, this system is already showing itself to be unsustainable. Unlike the traditional neighborhood, sprawl is not healthy growth. Even at relatively low population densities, sprawl tends not to pay for itself financially and consumes land at an alarming rate, while producing traffic problems and exacerbating social inequity. These particular outcomes were not expected. Neither was the toll that sprawl exacts from America's cities and towns which continue to decant slowly into the countryside. As the ring of suburbia grows around most of our cities, so grows the void at the center.

Municipalities, developers, designers, and citizens are all faced with a choice: to continue to grow along the suburban sprawl model, or to reintroduce the principles and techniques of traditional neighborhood design. Whether America grows into a placeless collection of subdivisions, strip centers, and office parks, or a country of real towns with real neighborhoods, will depend on whether people understand the difference between those two alternatives. Towards that end, we offer these Guidelines.

The TND Guidelines enumerate the many qualities that distinguish Traditional Neighborhood Developments from conventional suburban sprawl. They are not a comprehensive design tool, but they describe the ways in which current development practice needs to change if we are to again create traditionally-organized, pedestrian-friendly, mixed-use neighborhoods. These Guidelines can serve different groups in different ways. They allow developers to review their current plans to determine whether they can expect to realize the market premium which has been demonstrated to accrue to TNDs. They enable planning officials to determine whether submitted plans are likely to provide the social benefits associated with TNDs, in order that they may qualify for incentives such as fast-track permitting or increased density allocation. They enable citizens to understand whether a proposed project is either a part of the problem or a part of the solution, and worthy of their support.

## PRINCIPLES

These Guidelines are based on a set of principles advocated in the Charter of the Congress for the New Urbanism (CNU), a nonprofit coalition of architects, urban designers, planners, engineers, journalists, attorneys, public servants, and concerned citizens. The CNU now has over 1700 members, and meets annually. At its 1996 meeting, the CNU presented and signed its Charter, which was endorsed by the Director of the U.S. Department of Housing and Urban Development (H.U.D.). The Charter appears below. In interpreting these Guidelines, any uncertainties should be considered in light of the principles advocated here.

## THE CHARTER OF THE NEW URBANISM

### Introduction

The Congress for the New Urbanism views divestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy. We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practice to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We assert the following principles to guide public policy, development, practice, urban planning, and design:

### The Region: The Metropolis, the City, and the Town

1. Metropolitan regions are finite places with geographic boundaries derived from topography, watersheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural landscapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility throughout the region while reducing dependence upon the automobile.
9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation, recreation, public services, housing, and community institutions.

### The Neighborhood, the District, and the Corridor

1. The Neighborhood, the District, and the Corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
2. Neighborhoods should be compact, pedestrian-friendly, and mixed use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and rail lines to rivers and parkways.
3. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
4. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
5. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
6. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to become a viable alternative to the automobile.
7. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
8. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
9. A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

### **The Block, the Street, and the Building**

1. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
2. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
3. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe environments, but not at the expense of accessibility and openness.
4. In the contemporary metropolis, development must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
5. Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
6. Architecture and landscape design should grow from local climate, topography, history, and building practice.
7. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
8. All buildings should provide their inhabitants with a clear sense of location, weather, and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
9. Preservation and renewal of historic buildings, districts, and landscapes affirm the continuity and evolution of urban society.

## CHAPTER 1

### THE REGIONAL STRUCTURE

*TNDs are designed not in isolation, but in consideration of a greater regional land plan that preserves the environment through land conservation and the encouragement of transit. They connect seamlessly with their surroundings, and are made up of neighborhoods of a scale and detail that encourages pedestrian activity.*

---

#### 1.1. The Regional Plan

For individual TNDs to truly have an impact on an area's quality of life, especially as it pertains to traffic issues, that area should have a regional plan in place. Without such a plan, individual developments, while in themselves well organized, may place undue burdens on existing infrastructure. For example, even though TNDs have been demonstrated to capture many of their car trips internally, it is folly to expect that no one will ever drive in or out of them. For that reason, it makes sense to locate growth areas adjacent to existing infrastructure. That same location is also supported by the need to lower servicing costs (water, sewer, electricity, etc...) and the desire to preserve forests and farmland. It is beyond the scope of this document to describe the qualities of a good regional plan, or to outline the best techniques of regional planning. However, it should be stressed that, to be effective, a regional plan should be based on the twin objectives of encouraging mass transit (as opposed to automobile use) and supporting the preservation of open space.

---

#### 1.2. Street Connections

The reason that suburban sprawl handles traffic so poorly is that so few streets actually serve through traffic. Because few streets provide regional connectivity, those streets quickly become overburdened and unpleasant for drivers and pedestrians alike. Typical subdivisions and shopping centers, connected to a collector road in one location only, cause noxious traffic at that connection and upon the collector road. The traditional alternative is to require new developments to connect to surrounding streets wherever feasible, so that traffic is distributed more evenly. "Wherever feasible" means wherever such connections are not prohibited by major natural obstructions, inviolable private property, or the intersection spacing of state or federal transportation departments (which should often be reconsidered). Any street that currently dead-ends into a subject property should be continued through the property. Similarly, any properties surrounded by land which may be developed at a future date should be planned with street easements in place allowing a rich network of connections into any future developments. In the case of developments which are met by resistant neighbors who fear connection, easements should still be put in place so that future connection is possible at a later date.

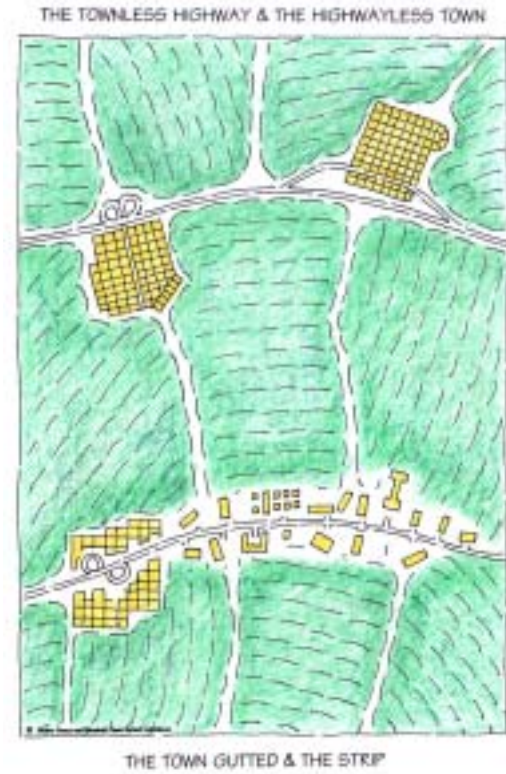


SEASIDE, FLORIDA: ITS STREET NETWORK CONNECTED DIRECTLY INTO THE GRID OF SEA GROVE TO ITS EAST, AND PROVIDED ACCESS TO FUTURE NEIGHBORHOODS TO THE NORTH AND EAST. THOSE NEIGHBORHOODS ARE NOW BEING BUILT.



**1.3. The Highwayless Town**

While high-volume streets can be healthy for neighborhoods, high-speed roads destroy neighborhoods. A high-speed road approaching a neighborhood should do one of two things: either skirt the neighborhood, or take on low-speed geometries as it enters it. This is what happens in many older American towns and villages, where a state highway briefly becomes an urban main street as it passes through the neighborhood. Whether such a condition is healthy or destructive depends on the design speed of the roadway, which controls its geometry.



FORGOTTEN WISDOM: THE PROPER AND IMPROPER RELATIONSHIP BETWEEN HIGHWAY AND TOWN.

**1.4. Induced Traffic**

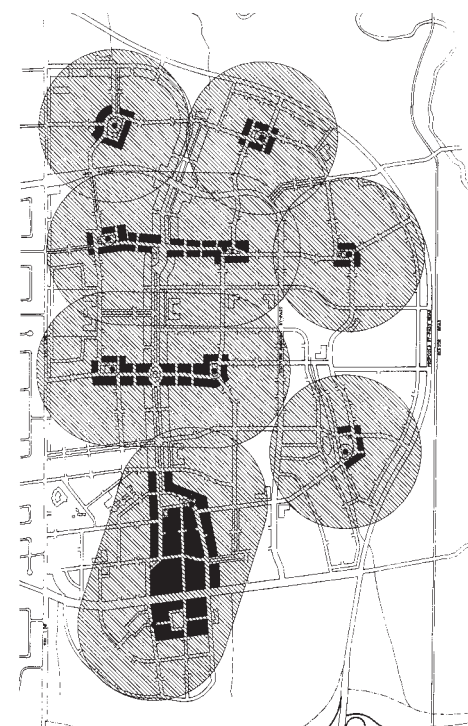
Much regional planning is motivated by concerns about traffic, and it is important to remember that wise regional planning means not thinking that traffic can be fought by road-building. In recent studies, every 10 percent increase in roadway capacity resulted in a 9 percent increase in traffic within four years time. As the highway engineers put it, “trying to cure traffic congestion by adding more capacity is like trying to cure obesity by loosening your belt.” This phenomenon, called *induced traffic*, is well known, yet it is ignored by most highway and planning departments. Any responsible regional-scale plan will factor induced traffic into its road capacity calculations.



ADMITTING THE PROBLEM: THE BRITISH GOVERNMENT HAS CONFIRMED THAT “ONE CANNOT TACKLE THE TRAFFIC PROBLEMS BY BUILDING MORE ROADS.”

**1.5. The Neighborhood Structure**

The measure of the neighborhood is the fundamental increment for the design of towns and cities. It corresponds to the five-minute walk, or “pedestrian shed,” which averages one quarter of a mile. Large sites to be developed should be first divided conceptually into neighborhoods, each roughly one quarter mile from edge to center. This structure places the majority of households within pedestrian access of a mixed-use neighborhood center. Based on this measure, the typical square neighborhood averages 160 acres, or a “quarter section.” Of course, all neighborhoods will not be square or round, as those with peripheral, elongated, or simply larger centers will take different shapes, based on the discipline of the pedestrian shed. (Peripheral centers are quite common, due to the wisdom of locating retail on well-traveled thoroughfares.) Once the neighborhood structure is determined, all other planning decisions follow naturally.



CORNELL, ONTARIO: EACH NEIGHBORHOOD WITHIN THIS NEW TOWN IS SIZED ON THE MEASURE OF THE FIVE-MINUTE WALK FROM EDGE TO CENTER.

**CHAPTER 2**

**THE NATURAL CONTEXT**

*TNDs make the most of their natural surroundings by preserving and celebrating water features, trees, topography, and natural corridors.*

**2.1. Nature Preservation**

When developing a greenfield site, all wetlands, lakes, streams, hills, and other significant natural amenities should be retained. There are many justifications for preserving a site’s natural qualities, in addition to the obvious ecological benefits. Natural features — not just waterfront and hillsides, but wetlands and trees — can add significantly to property value, and the character of the landscape helps people to understand and negotiate their environment. When developing a farm site, the most interesting and successful plans often result from following the paths, hedgerows, crop edges, and other historic traces present on the site, as they often contain a wisdom which has accumulated over decades.



MIDDLETON HILLS, WISCONSIN: THE PLAN WAS ORGANIZED BASED UPON THE PRESERVATION AND CELEBRATION OF EXISTING WETLANDS AND TOPOGRAPHY.

**2.2. Nature Celebration**

The most valued and valuable neighborhoods do not just preserve natural features; they celebrate them. Natural or naturalistic amenities such as waterfronts, forests, parks, and even golf courses are not hidden behind private backyards, but are at least partially fronted by public spaces, thoroughfares, and walkways. It is acceptable to sell off part of a view to private property, but not so much that it is not readily visible from within the neighborhood. Especially important are sites at the end of streets that terminate on the amenity, which must be left open to views. Those developers who resist selling off the best views for a quick windfall on a few lots will ultimately benefit from increased values throughout the community.



PUBLICIZING THE AMENITY: AT ROSEMARY BEACH, FLORIDA, THE CONNECTION TO THE BEACH IS CELEBRATED BY FREQUENT WALKOVERS AND TWO WATERFRONT GREENS.

**2.3. Tree Preservation**

The preservation of trees should be a major factor in the organization of any land plan. The first step in the site design should be the completion of a tree survey, locating specimen trees and significant tree stands. These trees should then serve as the location of parks, greens, squares, common lawns, and other neighborhood amenities. Hedgerows can be used as the centers or flanks of avenues, with site work kept a safe distance from root mass. Healthy tree canopies take a full generation to replace, and nothing affects a neighborhood's value more than its tree cover. (The tree survey is unwarranted on sites with an absolutely consistent coverage of small trees.)



CORNELL, ONTARIO: THE PLACEMENT OF NEIGHBORHOOD GREENS AND PARKS HAS BEEN DETERMINED BY THE LOCATION OF TREE STANDS.

**2.4. Avoiding Mass Grading**

Site plans should work carefully with the existing topography to minimize the amount of mass grading necessary. Although it is perhaps easier, from a design perspective, to level the site first and ask questions later, this approach often results in a lower neighborhood value. Hilly terrain makes places more memorable and easier to conceptualize, and mass grading disturbs drainage patterns and kills trees. Plans that work with existing topography often include traditional intersections like forks and triangles, which dramatically reduce the amount of required site work. Generally, sites of varying slope should place their greatest density on the slightest slopes, and vice versa.



MOUNT LAUREL, ALABAMA: THE WINDING ROADS, QUIRKY INTERSECTIONS, AND VARIED DENSITY ALL AROSE FROM THE GOAL OF PRESERVING THE EXISTING TOPOGRAPHY.

**2.5. Hilltop Preservation and Celebration**

Significant hilltops and high points should generally be kept free of private development and reserved for public tracts and civic buildings. Like water views, views from peaks should not be privatized, and only civic buildings are important enough to merit such dramatic siting. Most complaints about hillside development refer not to the hillside, but to the hilltop: private buildings located so as to destroy the natural profile of a ridge as seen from afar. As long as a building keeps its roof below the ridge, the damage to the view is limited.



FRIJOLETS VILLAGE, NEW MEXICO: IN THIS NEW VILLAGE, THE TWO HIGHEST POINTS ARE SAVED AS GREENS, WHILE THE THIRD IS THE SITE OF THE CENTRAL PLAZA.

## 2.6. Natural Corridors

Large areas of open space contribute much more to environmental health if they are linked into continuous corridors. Such corridors should generally take one of two forms: wider corridors, which should be located only *between* neighborhoods, since they interrupt urbanization; and narrower corridors, which may reach into green neighborhood centers in the form of parkways and boulevards. Narrow corridors should provide regular pedestrian crossings, so as not to form barriers. Such continuous corridors would ideally be designated within a regional plan.



KENTLANDS, MARYLAND: A CONTINUOUS NATURAL CORRIDOR DIVIDES THE SITE INTO TWO SEPARATE NEIGHBORHOODS.

**CHAPTER 3**

**LAND USE**

*TND neighborhoods are largely self-sufficient units, each providing a wide range of activities at close range. Each neighborhood has a center containing higher-density housing, convenience retail, and a transit stop. Buildings are grouped based upon their physical compatibility, in order to create harmonious streetscapes.*

**3.1. Mixed-Use**

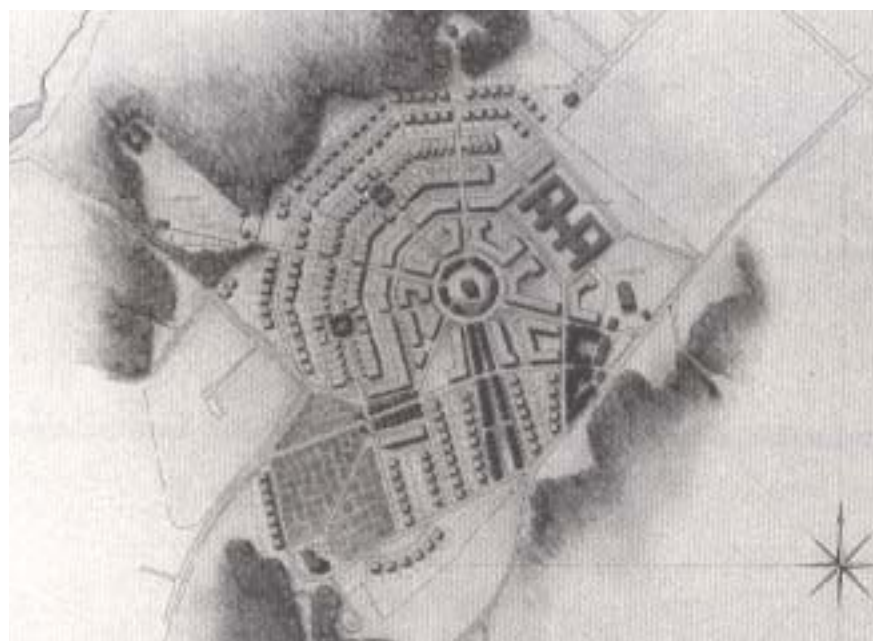
Each neighborhood should provide a relatively balanced mix of housing, working, shopping, recreation, and institutional uses. Developers with a single specialty should be encouraged to joint-venture with others so that large parcels are not dedicated to a single use. While a perfect balance is rarely possible, large parcels containing a single use should be prohibited. Traditional Neighborhood Development does not include housing subdivisions, office parks, or shopping centers. Increased density allowances should be allocated to well-balanced mixes, since they reduce traffic and parking loads.



ARMORY SQUARE: A NEW COLLECTION OF SHOPS AND APARTMENTS COMPLEMENT AN OFFICE-ORIENTED NEIGHBORHOOD.

**3.2. Centripetal Force**

As the name implies, the neighborhood center should typically be the location of the neighborhoods greatest housing density and commercial concentration. Most streets generally become less dense and active as they head from the neighborhood center to the neighborhood edge, especially in villages, where the edge abuts nature. The only exception occurs when several neighborhoods meet across a busy road. In this case, the activity of the seam may justify a concentration of housing, stores, or offices.



THE PLAN FOR CRAB CREEK, MARYLAND: AS IS MOST EVIDENT IN VILLAGES, DENSITY AND MIXED-USE ACTIVITY INCREASE FROM THE EDGE TO THE CENTER

**3.3. Neighborhood Center Retail**

Each neighborhood center should contain some retail space. A corner store/cafe should be provided in all neighborhoods of at least 300 residences and/or jobs. This store forms the social center of the community and should be considered part of the neighborhood infrastructure. As such, it should be subsidized by the developer if necessary to ensure its success. Corner stores do best if combined with the neighborhood post office, where each resident must go to pick up mail. (While door-to-door mail service seems like a required amenity, most people who become accustomed to post-office pickup turn down offers of door-to-door service, as they enjoy the social aspect of the post-office visit.) To be successful, retail streets should be continuous, with shops on both sides and as few interruptions as possible. In the transition from retail to residential areas, convertible retail space may be provided in live/work buildings: houses or rowhouses with ground-level shops at the front.



THE COURT STREET CORNER STORE: AT THE VERY LEAST, A RESIDENTIAL NEIGHBORHOOD SHOULD INCLUDE A CORNER STORE WITHIN EASY WALKING DISTANCE OF MOST HOUSES. WHEN PROPERLY DESIGNED, RETAIL IS A GOOD NEIGHBOR.

**3.4. Neighborhood Center Office**

Each neighborhood center should contain some office space. Ideally, there should be approximately as much office space in the neighborhood as there are office workers living in the neighborhood, and most of this space should be located at or near the center, where it has easy access to retail and transit. In addition to office buildings, offices can be located above stores, and in live/work buildings.



PRINCETON, NEW JERSEY: OFFICE SPACE (AND HOUSING) ABOVE RETAIL CREATES GREATER DEMAND FOR THE RETAIL AND GREATER CONVENIENCE FOR THE OFFICE.

**3.5. Neighborhood Center Transit Stop**

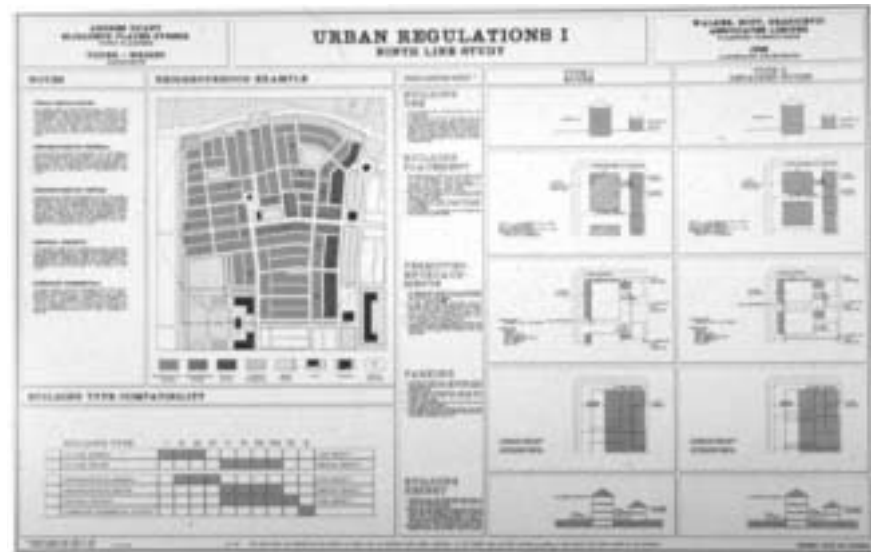
Whether or not transit service is currently in place, neighborhood centers must be designed as *transit-ready areas*. The neighborhood structure naturally supports the provision of transit, but the stop itself must be dry and dignified. Ideally, the transit stop should be located next to the corner store/café, where one can wait for the bus or tram indoors, with a newspaper and a cup of coffee. Transit routes within TNDs should simply provide stops at each neighborhood center.



CLEVELAND, OHIO: THIS RAIL STOP SITS ON SHAKER SQUARE, CONVENIENT TO NEIGHBORHOOD STORES.

**3.6. Zoning**

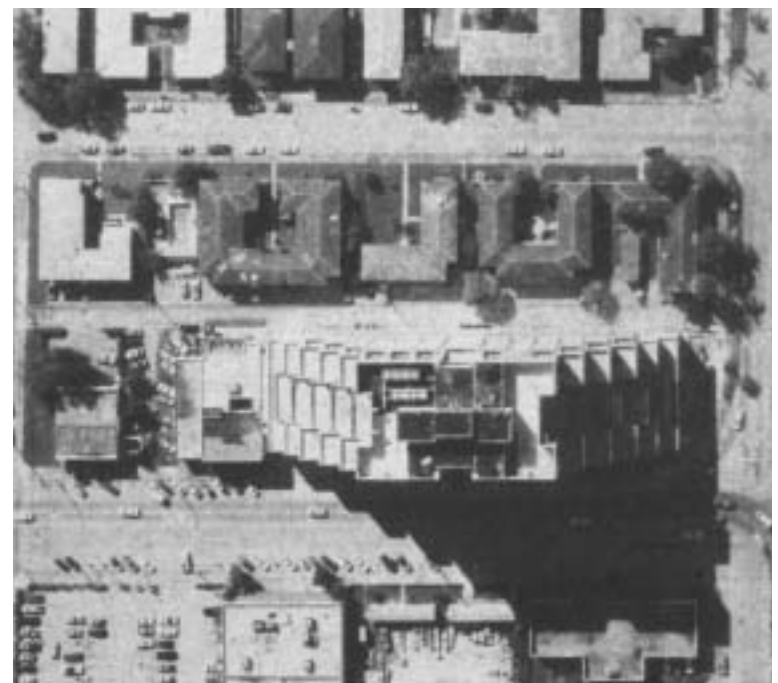
While TNDs encourage mixed use, nonexclusive zoning, there is a form of segregation in place regarding building typology. Big buildings should be located among other big buildings, mid-sized buildings should be located among other mid-sized buildings, and so on. Neighborhood plans should indicate the range of building sizes and heights allowed within each area. Generally, buildings should get smaller and lower as one leaves the center, with the exception that large homes are sometimes located at the rural edge.



THE REGULATING PLAN FOR CORNELL: DIFFERENT ZONING CATEGORIES CORRESPOND NOT TO BUILDING USE BUT TO BUILDING TYPE, ENFORCING INCREASED DENSITY TOWARD THE NEIGHBORHOOD CENTER.

**3.7. Zoning Edges**

A typical error in suburban land plans is to place the borders between different building zones in the middle of the street, such that streets end up with incompatible building types on each side, and an inconsistent streetscape. With rare exception, streets should be symmetrical, with the same building types on both sides. This result is achieved by putting building-zone borders at midblock, along the alley, where they are hidden. Consistent streets are the result of inconsistent blocks.



CORAL GABLES, FLORIDA: WHEN ZONING CHANGES OCCUR AT MIDBLOCK RATHER THAN MID-STREET, IT IS POSSIBLE TO PLACE VASTLY DIFFERENT BUILDING TYPES IN CLOSE PROXIMITY.

## CHAPTER 4

### PUBLIC BUILDINGS AND SPACES

*TND neighborhoods are organized around their public buildings and spaces. Each neighborhood contains a formal public place at its center, often the location of a meeting hall. Elementary schools, day care, and recreational facilities are small and frequent, to ensure pedestrian accessibility, and small playgrounds are located within a short walk of most dwellings. To guarantee that they will be used, public tracts correspond to traditional open-space typologies.*

#### 4.1. The Space at the Center

Each neighborhood center should contain a public space such as a plaza, square, or green. Which type of space is appropriate depends upon the uses of the center and its degree of urbanity. Plazas are the most urban solution, while greens are more rural. An attached plaza (typically with southern exposure) is ideal in front of the corner store/café, for outdoor seating. These public spaces need not be very large; if they become too wide they lose their spatial definition. For this reason, a neighborhood's tallest buildings should typically face this central space.



NANTUCKET, MASSACHUSETTS: A WIDE COBBLESTONE STREET SERVES AS A PUBLIC PLAZA AT THE RETAIL HEART OF THE NEIGHBORHOOD.

#### 4.2. The Meeting Hall

Each neighborhood should reserve as a public tract at least one site for a meeting hall or a house of worship. Typically, this site should be located at the neighborhood center, where it can share parking with complimentary workday uses. The site should be detailed as a public open space until the civic building is built. Generally, developers should be required to build a meeting hall after half the lot sales have been completed, unless the site has been sold to a house of worship.



ROSEMARY BEACH, FLORIDA: AT THE TOWN CENTER, A PROMINENT SITE WAS RESERVED FOR THE NEIGHBORHOOD MEETING HALL, SUBSEQUENTLY FINANCED BY FIRST-PHASE LOT SALES. (NOW UNDER CONSTRUCTION).



**4.3. Elementary Schools, Day Care, and Recreational Centers**

Elementary schools, day-care centers, and recreational centers should be located within one mile of most dwellings, and sized accordingly. Mega-facilities result in unnecessary automobile use, and are only efficient if one ignores the costs of driving and traffic. Smaller schools have been found to produce smarter children, and walking to school can play a significant role in a child’s physical and intellectual development.



THE SEASIDE SCHOOL: DESPITE NAYSAYERS, THE 1979 PLAN FOR SEASIDE RESERVED A SITE FOR AN ELEMENTARY SCHOOL. TWENTY YEARS LATER, THE SCHOOL WAS BUILT.

**4.4. Playgrounds (Pocket Parks)**

Neighborhoods are typically divided into quadrants, each of which is free of high-volume streets and safe for even young pedestrians. Near the center of each quadrant should be located a small playground or tot-lot, with benches and play equipment, such that most houses are within one eighth of a mile from such an amenity. This pocket park is usually less than a quarter-acre in size, and is often maintained by a home-owners association corresponding to the neighborhood or the quadrant.



KENTLANDS, MARYLAND: A RESIDENTIAL QUADRANT CONTAINS TWO TRIANGULAR POCKET PARKS – A LONG FORMAL GREEN, AND A MIDBLOCK TOT-LOT.

**4.5. Open Space Typology**

Open space is useless to humans unless it corresponds to traditional open space types that people know how to use. Parks, greens, squares, plazas, and the like, all have specific definitions and design rules that make them useful. All open spaces should correspond to these traditional types and should be designed and detailed accordingly. Definitions and illustrations can be found in the *Lexicon of the New Urbanism*.



FRANKLIN SQUARE: A TRADITIONALLY ORGANIZED SQUARE, WITH AN OPEN CENTER, WELL DEFINED EDGES, AND BOTH PAVED AND GRASSY AREAS.

**CHAPTER 5**

**THE THOROUGHFARE NETWORK**

*Thoroughfares should form a continuous network of small blocks, to disperse traffic. Every street in the network serves multiple functions, with none relegated strictly to the moving of vehicles. Vistas down streets are generally kept to a limited length, terminated by well-sited buildings, views of nature, or slight deflections. When streets curve, they maintain the same general direction so that visitors remain oriented.*

**5.1. The Network**

Within each neighborhood, streets should be organized into a comprehensible network that manifests the structure of the neighborhood. The largest streets should pass through the center, dividing the neighborhood into (typically four) quadrants. These quadrants generally contain smaller streets carrying less through traffic. The network structure of the neighborhood, while emphasizing the center, provides multiple paths to and from any destination, so that traffic backups are limited and can be avoided.



THE STREET NETWORK IN A CORNELL NEIGHBORHOOD: A RICH HIERARCHY THAT EMPHASIZES THE CENTER AND EDGES.

**5.2. Cul-de-Sacs**

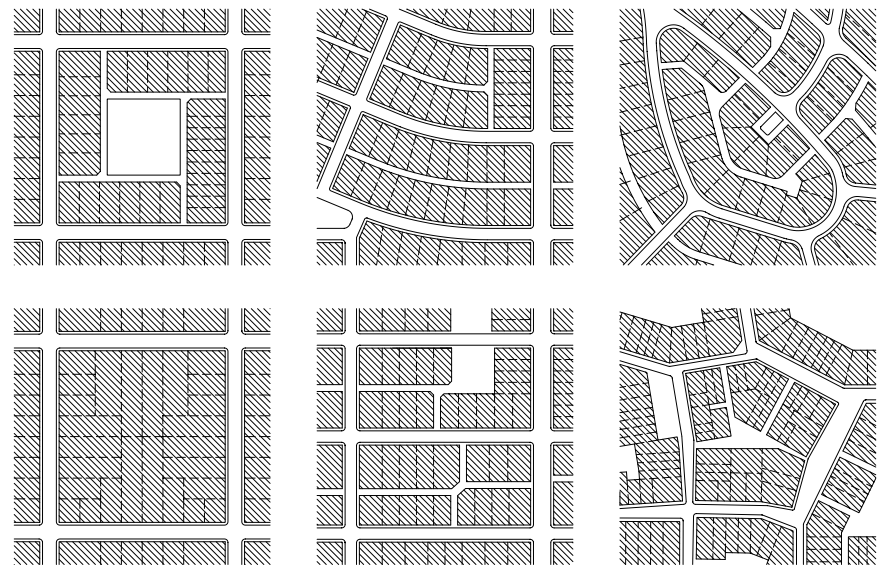
Cul-de-sacs, while popular among homebuyers with limited choice, are inferior to through streets in the creation of community, for several reasons. First, since they lead nowhere, they do not receive through pedestrian traffic, so people never meet anyone but their immediate neighbors. Second, because they limit the amount of streets handling through vehicular traffic to a few collector roads, those roads become noxious to pedestrians. A cul-de-sac may be safe, but it is not safe to leave. The same is true when it comes to urban street closures; limiting connectivity results in localized overloads. In a truly porous street network, each street receives enough traffic to keep it safe and supervised, but not so much as to make it unpleasant for pedestrians or unsafe for children. Cul-de-sacs are only justified where extremely difficult topography makes street networks impossible.



SPRAWL (BELOW) VS. THE TRADITIONAL NEIGHBORHOOD (ABOVE): IN CONTRAST TO THE TRADITIONAL NETWORK, THE SPRAWL MODEL'S CUL-DE-SAC ORGANIZATION FOCUSES ALL TRAFFIC ONTO A SINGLE ROAD.

**5.3. Block Size**

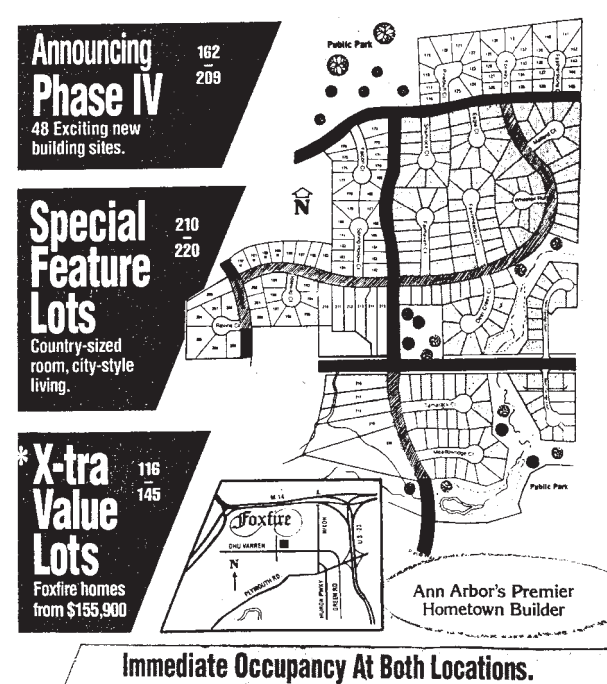
A porous street network only exists when blocks are kept small. Blocks should average less than 600' in length, 300' in depth, and 1800' in perimeter. Generally, blocks become longer as one moves from the neighborhood center to the neighborhood edge. A typical neighborhood center block might be 250' square, while a typical edge block might be 250' by 600'. The exceptions are neighborhood center blocks containing central (hidden) parking lots, which may be as large as 500' square. In low density edge areas, blocks can be somewhat longer, if they are interrupted near their center by a through-block pedestrian path.



TRADITIONAL BLOCK TYPOLOGIES: WHATEVER THE SHAPE, BLOCKS REMAIN SMALL TO ENSURE AN EFFICIENT NETWORK.

**5.4. Avoidance of Collector Roads**

The typical suburban cul-de-sac planning method often results in streets between cul-de-sacs that are wasted on access – that is to say, they are not fronted by any saleable real estate, but only serve to move drivers from one pod to the next. In TNDs, all streets serve multiple functions, not just vehicular motion, and collector roads are avoided.



INFRASTRUCTURE WASTED BY THE CUL-DE-SAC SYSTEM: GRAY STREETS HAVE ONLY 50% SALEABLE FRONTAGE, WHILE BLACK STREETS HAVE NO SALEABLE FRONTAGE AT ALL.

**5.5. Terminated Vistas**

One reason that suburban subdivisions often contain curvilinear roads is so that long views are shut down, which creates a sense of enclosure in the street. This objective is laudable, but a curved street is only one of many ways to terminate a vista. Another way is a T or staggered intersection, which aims the vista at a specific building or view. In modern subdivisions, T intersections typically result in views that are poorly aimed – at a garage door or a slot between two buildings. In TNDs, most vistas are carefully terminated on either a public tract, a view of a natural feature, or a carefully-sited building (ideally civic). When a vista terminates on a private building front, the building should respond with a gable, porch, tower, or similar feature centered in the view. This technique provides corresponding valuable views from within the building.



THE HALL OF LANGUAGES AT SYRACUSE UNIVERSITY: IN WELL-PLANNED NEIGHBORHOODS, BOTH PUBLIC AND PRIVATE BUILDINGS ARE SITED TO ELEGANTLY TERMINATE STREET VISTAS.

### 5.6. Orientation

While curving streets are useful for terminating vistas, they quickly become disorienting if they curve dramatically, especially in multiple directions. When streets curve, they should still maintain the same general cardinal orientation over their entire trajectory. The only exception is in the case of steep topography, where S-shape roads are needed to snake up hillsides.



*CONFUSING BY DESIGN: CONVENTIONAL SUBDIVISION PLANS DISORIENT VISITORS WITH OVERLY CURVY STREETS.*

**CHAPTER 6  
STREET DESIGN**

*TND neighborhoods contain a wide range of street types designed as environments equitable for the pedestrian, the bicycle, and the automobile. Pavement widths and geometries keep vehicular speeds low. Quirky traditional intersections and tight curb radii are allowed, for the same reason.*

**6.1. Street Widths**

Current subdivision ordinances specify street designs that are too wide for mixed-use neighborhoods, inducing drivers to speed. They are typically derived from highway standards, and are not appropriate for pedestrian-scale neighborhoods – in fact, they kill pedestrian activity (and pedestrians). The study of successful older American neighborhoods results in a second set of street designs which have been proven to work well for both drivers and pedestrians over decades of use. These street widths can indeed slow down the access of emergency equipment, but studies suggest that the amount of lives lost due to slower emergency response is statistically insignificant compared to the amount of lives saved due to slower driving speeds. These streets form a hierarchy, as follows (measurements are from curb-face to curb-face):

- A. Main Street**, approximately 34' wide including marked parking on both sides;
- B. Through Avenue**, (optional) including a 10' - 20' treed median separating two one-way lanes, each approximately 18' wide including marked parking on one side.
- C. Through streets**, approximately 27' wide including marked parking on one side;
- D. Local streets**, medium density, approximately 26' wide including unmarked parking on both sides. (Travel in both directions shares a single central lane (AASHTO, p. 436)).
- E. Local streets**, low density, approximately 20' wide including unmarked parking on one side. (Travel in both directions shares a single central lane (AASHTO, p. 436)).
- F. Commercial rear alleys**, approximately 24' wide within a 24' R.O.W.
- G. Residential rear lanes**, approximately 12' wide within a 24' R.O.W.

**WHAT ARE SKINNY STREETS?**

The City of Portland requires most newly constructed residential streets to be 26' or 30' feet wide, depending on neighborhood (on-street parking needs). In the past, residential streets were required to be as wide as 36' feet. To achieve the benefits described below, the City reduces residential street widths.

**Why create skinny streets in neighborhoods?**

- Allowing newly-proposed residential streets to be narrower provides many benefits to our residents. Skinny streets help preserve neighborhood livability, while improving access to homes. Some benefits are:
  - Maintain neighborhood character:** Construction of a wide paved street to replace a narrow unpaved road can change a neighborhood's atmosphere. Skinny streets reduce the impact on slopes and contours, on lands and on neighborhood art images.
  - Lower maintenance costs:** Construction of narrower streets costs less. This means that residents who want to improve existing streets are able to do so for less money and developers can create more neighborhood streets inexpensively.
  - Save vegetation & trees:** In existing neighborhoods, narrower parking widths reduce the need to cut trees and shrubs along the street.

**Reduce stormwater runoff:** Paved streets are a major source of stormwater runoff. Pollutants from autos, as well as fertilizer, pesticides and other contaminants, are collected in stormwater which flows into street sewers. Eventually, this dirty water reaches our streams and rivers. Reducing pavement reduces stormwater runoff and allows more water to soak directly into the ground.

**Encourage better land-use:** As stewards of our natural resources, we know that streets aren't the best use of existing undeveloped land. With skinny streets, more developments can have more room to house our growing population while reducing the amount of land reserved for traffic use.

**Encourage better traffic safety:** Narrower streets discourage non-neighborhood traffic and force drivers to slow down.

**Who decides on a street's width?**

If you live on an unimproved street, you may be considering forming a Local Improvement District (LID) to complete your street. With an LID, you and the other property owners on your street would pay for improvements, and the City would be responsible for future maintenance. In that case, you and other participating property owners can help design what your street will look like. Collectively, you can decide if you want parking on one or both sides of the street. This will determine how wide the street will be. In new neighborhoods, developers will select the street width they believe to be most appropriate within the city guidelines.

**Can emergency vehicles reach my home?**

The Fire Bureau participated in research in older neighborhoods with narrow streets. The Bureau found that street width is based on skinny street guidelines is still provide adequate access for emergency vehicles.

**How Can I Learn More About SKINNY STREETS?**

The City of Portland's Office of Transportation has set up the Local Streets Commission Program. If you would like more information, or if you're interested in a demonstration about skinny streets, please contact (503) 823-7046

PORTLAND'S NEW STREET STANDARDS: FOR LOW-DENSITY NEIGHBORHOODS, A SINGLE TRAVELLANE HANDLES LIGHT TRAFFIC IN BOTH DIRECTIONS, RESULTING IN A NARROWER, SAFER STREET.

**6.2. Street Geometry**

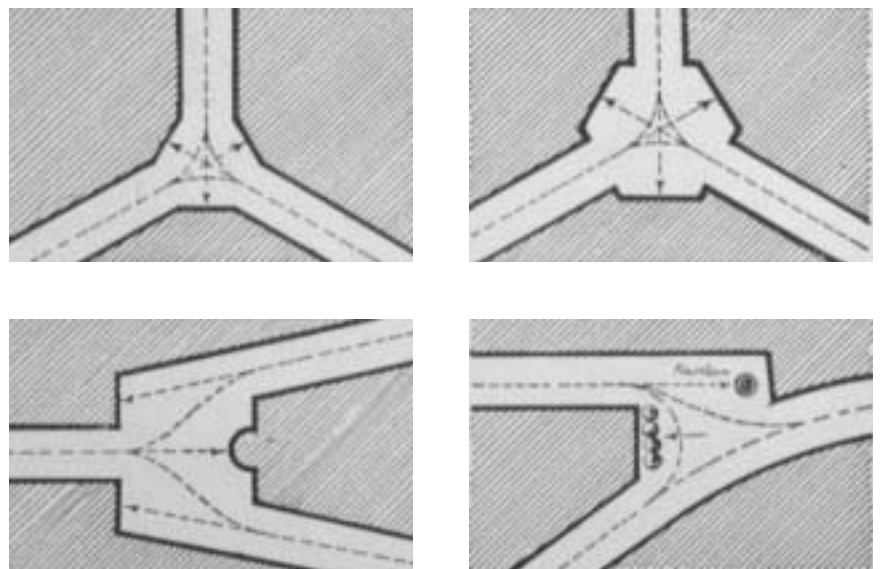
Speed limits do nothing to slow most drivers, as drivers will drive the speed at which they feel safe. Only the street’s geometry will slow down speeders, and that geometry is a function of the street’s *design speed*. While some engineers maintain that higher design speeds make speeders safer, they in fact only make speeders speedier. Car/pedestrian conflicts near 30 m.p.h. are likely to result in death, while those near 20 m.p.h. are not. For that reason, no populated street should have a design speed over 30 m.p.h., and no street within a neighborhood should have a design speed over 20 m.p.h..



TRAFFIC-CALMED: AT SEASIDE, A ROUNDABOUT, SHARP CORNERS, AND 16'-WIDE STREETS KEEP CAR SPEEDS DOWN.

**6.3. Traditional Intersections**

One reason for the pedestrian safety of older neighborhoods is the presence in those neighborhoods of traditional intersections that require additional attention from the driver. Outlawed in many subdivision ordinances, these intersections are natural traffic-calming devices. Neighborhoods should be allowed to contain forks, triangles, staggered crossings, and other traditional intersections that slow traffic.



FROM THE TEXTBOOKS (1909): TRADITIONAL INTERSECTIONS, DESIGNED TO CREATE MEMORABLE PLACES, ARE OFTEN OUTLAWED BY SUBDIVISION ORDINANCES.

**6.4. Curb Radii**

Conventional subdivision ordinances specify ample corner radii at intersections, so that large vehicles may turn the corners easily. These swooping curbs do ease turning, but they have two negative impacts: pedestrians crossing the street are required to walk a much greater distance unprotected, and cars are able to turn the corner without slowing down. The result is a very dangerous environment for pedestrians. Curb radii should not exceed 15', 25' in rural areas. At intersections of narrow roads, larger curb radii may be required by the turning radii of emergency equipment or delivery vehicles, but not if those vehicles can access the street through a three-point turn.



HAZARDOUS FOR PEDESTRIANS: CONVENTIONAL CURB RADIUS REQUIREMENTS ALLOW CARS TO SPEED AROUND CORNERS WITHOUT SLOWING DOWN.

### 6.5. One-Way Streets and Multiple-Lane Streets

Like large curb radii, one way streets ease traffic flows at the expense of pedestrian safety. The absence of opposing traffic makes speeding easier, and an increased number of turn-on-red movements makes pedestrian crossing hazardous. One-way streets can also kill retail activity, as many stores are dependent upon shoppers driving both to and from work. Finally, they limit the porousness of the street network and make navigation frustrating. They are only justified in areas of extremely high density, 75 units per acre or more. Similarly, streets with multiple lanes in either direction are rarely justified in anything but the most high-density conditions. When they are required in the suburbs — usually in error — they must not be allowed to enter neighborhoods, but instead must pass between them.



*1960'S TRAFFIC VICTIM: LIKE MANY DOWNTOWNS, BATON ROUGE WAS CONVERTED ALMOST EXCLUSIVELY INTO ONE-WAY STREETS, AT THE EXPENSE OF PEDESTRIAN LIFE.*

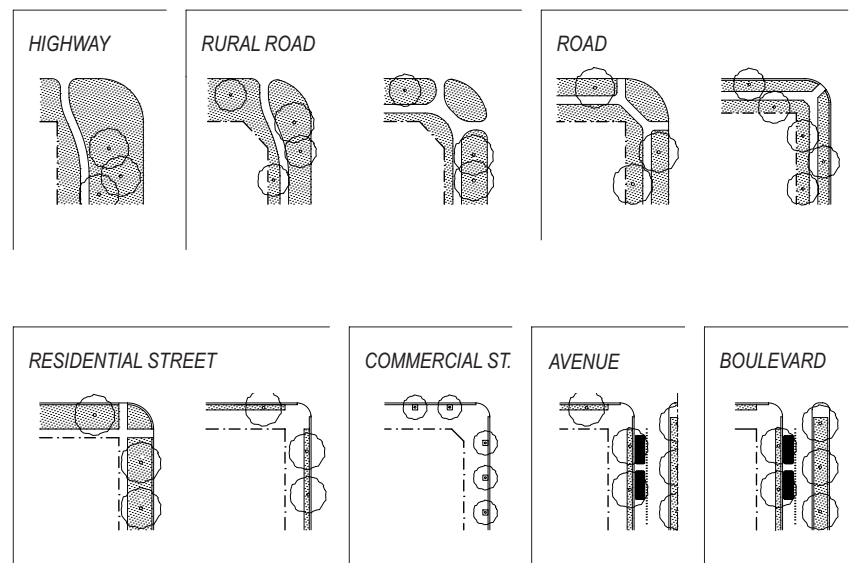
**CHAPTER 7**

**THE PUBLIC STREETScape**

*Streets are designed to feel both safe and pleasant to the pedestrian. Sidewalks are required, and are protected from traffic by parked cars and regular tree planting. The streetscape is made of simple materials and kept free of transformers and other unsightly machinery. Its detailing is carefully modulated from the neighborhood center to the neighborhood edge, to enhance the urban-to-rural transition.*

**7.1. Sidewalks**

With few exceptions, sidewalks should be provided on all streets. Retail streets should have 12' to 20' sidewalks on both sides; typical streets should have 5' sidewalks on both sides; lower-density streets should have 4' sidewalks on both sides; and streets towards the rural edge should have 4' sidewalks on at least one side. Sidewalks need not be provided only extremely rural roads, or on streets that are designed as *woonerfs*: extremely low-speed thoroughfares intended for the mixing of cars and pedestrians.



A VARIETY OF SIDEWALKS: FROM THE EDGE TO THE CENTER, SIDEWALKS BECOME WIDER, AND IN RETAIL LOCATIONS, INCORPORATE TREES INTO PLANTERS.

**7.2. Street Trees**

Street trees protect pedestrians, physically and psychically, from automobiles, and contribute dramatically to real estate values. Every non-retail street should include, between the roadway and the sidewalk, a continuous tree strip of indigenous shade trees planted at an average distance of 30' on center. Split boulevards should contain one or several rows of trees similarly planted up the center median. A boulevard effect can be created of a non-split roadway by placing an additional tree strip on the outside edge of each sidewalk.



EASTWOOD: THE CLASSIC AMERICAN STREET, DEPENDENT FOR ITS BEAUTY ON ITS TREE COVER.



**7.3. Retail Street Trees**

Streets with wide retail-fronting sidewalks should place shade trees or ornamental trees at 30' average on center, in metal sidewalk-level planters. They should typically be placed in line with the party-walls between shops, so that they do not block shop signs. Trees must be planted large enough so that the canopy is above shop windows. Sidewalks covered with arcades do not receive street trees, and trees are likewise optional when they conflict with large shop awnings.



MIZNER PARK, BOCA RATON, FLORIDA

**7.4. Simple Materials**

Streetscape materials need not be fancy or expensive. Streets should be simple asphalt. Sidewalks should be concrete finished with a trowel, not a brush. Sidewalks or pedestrian paths on the rural edge may be made of limestone screenings. Brick sidewalks are unnecessary for retail — concrete is fine — but a continuous 4'- to 6'-wide strip of brick or cobblestone should be provided between tree grilles for root health.



CHARLOTTE, NORTH CAROLINA: AN ASPHALT SURFACE, SIMPLE CONCRETE CURBS AND SIDEWALKS, AND ALIGNED TREES MAKE FOR AN IDEAL RESIDENTIAL STREET.

**7.5. Sidewalk Obstructions**

On retail sidewalks, a zone towards the curb should be designated as the location for all streetlights, mailboxes, trash receptacles, and other pedestrian obstructions other than benches, which should back up to building fronts. (Benches do not feel safe when they back up to traffic.) In non-retail streets, such obstructions should be placed in the tree strip abutting the sidewalk.



ARMORY SQUARE: STREETLIGHTS, SIGNPOSTS, FIRE HYDRANTS, AND TREES ARE ALL LOCATED TOWARD THE OUTER EDGE OF THE SIDEWALK.

**7.6. Eyesores**

The equipment necessary for servicing private property has become quite ugly and anti-pedestrian. Fortunately, the alley and rear parking lot offer an opportunity for concealment. All transformers, lift stations, utility meters, and other machinery should be located not in the front streetscape but at the rear lane, alley, or parking lot. When no rear access is present, such equipment should all be painted a similar muted color and grouped in an easement outside of the public sidewalk.



A PUBLIC NUISANCE: PROPERLY HIDDEN IN ALLEYS, MECHANICAL INFRASTRUCTURE BLIGHTS THE STREETScape.

**7.7. Streetlights**

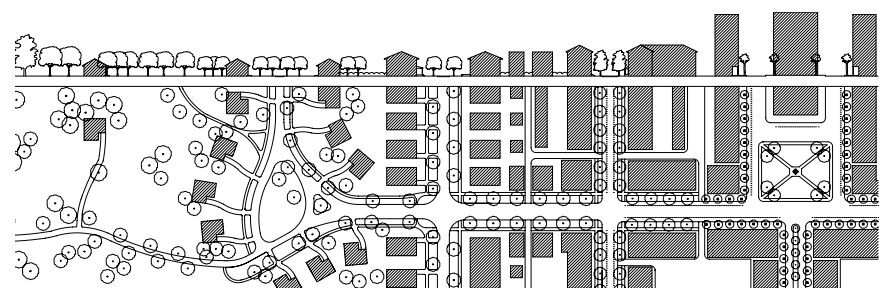
Tall, powerful streetlights deter both crime and pedestrian activity. The safest pedestrian environments are those which invite pedestrians with small, low-watt lamps on short poles. Towards neighborhood centers and in urban areas, streetlights should be frequent – approx. 30' on center – and 10' to 15' tall. Towards rural edges, streetlights should be less frequent – typically at intersections only – and between 8' to 12' tall. In these areas, streetlight poles can also serve as mountings for street signs.



SUCCESSFUL PEDESTRIAN ENVIRONMENTS HAVE MANY SMALL LIGHTS, NOT FEW LARGE LIGHTS.

**7.8. Streetscape: The Transect**

All neighborhood detailing should correspond to the logic of the *transect*, the gradual transition from urban to rural that generally accompanies a move from the neighborhood center towards the rural edge. As one leaves the center, closed curbs and gutters should become open swales, and trees should stop lining up and become more varied in species. In this way, there is an authentic and gentle transition from culture to nature. For neighborhoods which are surrounded by cities and towns, and therefore without a rural edge, the transition is much subtler.



FROM MOST RURAL TO MOST URBAN: AUTHENTIC STREETSAPES VARY IN MANY RESPECTS FROM THE RURAL EDGE TO THE URBAN CENTER. FEW NEIGHBORHOODS CONTAIN THE ENTIRE LENGTH OF THE TRANSECT; THE PLANNER'S CHALLENGE IS TO DETERMINE WHICH CATEGORIES APPLY.

## CHAPTER 8

### THE PRIVATE STREETScape

*TND design acknowledges that the public realm is shaped by the walls of private buildings, whose location and configuration must contribute to its quality. Commercial buildings in TNDs front directly on the sidewalk and avoid automobile-oriented signage. Residential buildings have relatively short front yards, in order to better define the street space, which is activated by porches, balconies, and other attachments. Two additional factors enhance the sense of enclosure: single-story buildings are generally discouraged, while flat facades are encouraged. Building heights decrease and setbacks increase from more urban to more rural areas.*

#### 8.1. Storefronts

Perhaps the greatest distinction between traditional retail and automotive retail is whether or not there is a parking lot in front. For an environment to attract pedestrians, all of its retail buildings must sit directly against the sidewalk, with any off-street parking located to the rear or elsewhere. In both new and older communities, front parking lots should be avoided at all costs.



WINTER PARK, FLORIDA: TO INVITE PEDESTRIANS, SHOPS MUST FACE THE SIDEWALK, NOT PARKING.

#### 8.2. Sidewalk Entries

If a shopping street is to be lively, all shops should access it directly. Malls and off-street arcades take pedestrians off the sidewalk, and are to be avoided. Similarly, shops with rear parking lots should not place customer entrances on those parking lots, as they turn the lot into a competing front. (Rather, parking lots should provide easy access to the front sidewalk, as described below.) Finally, with few exceptions, every pedestrianized shopping street in America has failed. It seems that shops need cars to survive. Pedestrian street malls should only be attempted in the most extremely urban conditions, where pedestrian crowding is the norm.



MESSY BUT EFFECTIVE: SHOPS AT THE SYRACUSE UNIVERSITY CAMPUS, ALONG A STREET, FARE BETTER THAN THOSE IN DARK PEDESTRIAN ARCADES.

**8.3. Signage**

Storefront signs, while visible to the motorist, must be of a scale and quality that appeals to the pedestrian. Signs should be no greater than 24" tall, and blade signs should be no greater than 12" tall. Translucent signs and sign-awnings should not be allowed, as they create an unpleasant glow. Each store should be allowed one flush sign and one blade sign per facade.



QUEBEC CITY: SMALL BLADE SIGNS CONTRIBUTE TO THE PEDESTRIAN SCALE OF A SUCCESSFUL RETAIL STREET.

**8.4. Retail Recommendations**

Main Street retail has difficulty competing against the better-managed mall. The following techniques, learned from mall architects, help new stores to succeed: The signage, storefront, door, and awning should be a unified design. The storefront should be detailed, but the building should be simple. Signs should be externally lit. The entrance should be towards the center of the storefront and recessed a minimum of 3'. Glass should be clear, undivided, and take up at least 75% of the first floor area. No signs should be placed in the glass portion, except cutout lettering affixed to the glass. Each storefront should be an individual design. The storefront should be painted in a gloss finish. Finally, awnings should be large, rectangular, and (touchably) low, with no side panels.



SEATTLE, WASHINGTON: A WELL-DESIGNED STOREFRONT. ARCHITECTURE AND SIGNAGE DO NOT COMPETE AGAINST THE DISPLAY OF GOODS.

**8.5. Short Setbacks**

Streets are more comfortable to inhabit if they are enclosed spaces, and spaces do not feel well enclosed if they are overly wide. For this reason, offices and residential buildings should be placed relatively close to the street. Setbacks can be as small as 6' at the neighborhood center, which is ideal for rowhouses. In typical neighborhood streets, houses might be set back between 10' and 20'. Only at the rural neighborhood edge are deeper setbacks appropriate, perhaps 30' or greater. Since house lots tend to grow from the center to the edge, it is a good estimate to suggest that houses should generally be set back about one quarter the width of the lot.



NIAGARA-ON-THE-LAKE, ONTARIO: A RANGE OF SHORT SETBACKS (15', 10', 5', AND 0' ) PROVIDE VARIETY WHILE DEFINING THE STREET EDGE.

**8.6. Clear Entries**

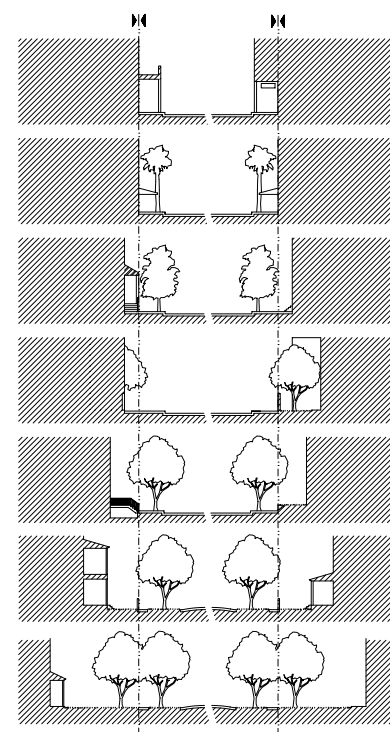
Whatever the building's use, its main entrance should be easy to find and should present a positive image to the street. Voids between buildings are not adequate entries. A building should place its entries near its center, face the street directly, and adorn it with a canopy, stoop, porch, awning, pediment, or other celebratory feature.



HANOVER SQUARE: OLDER BUILDINGS WITH CLEARLY DEFINED ENTRIES

**8.7. Encroachments**

It is perhaps too demanding to require buildings to provide useful semiprivate attachments such as awnings and porches. However, these items can be encouraged by allowing them as encroachments *within* the front setback zone. Bay windows, balconies, stoops, open porches, awnings, and arcades should all be allowed within the setback. Commercial awnings may of course overhang the public sidewalk, and may place supports on the sidewalk if necessary. Arcades (galleries) are a special case: they are useful in rainy or hot climates, but they are detrimental to retail unless they cover all but the very edge of the sidewalk. If there is ample room for pedestrians between the arcade and the curb, shoppers will skirt them on pleasant days. Therefore, shops constructing awnings should be required to cover all but 1' to 2' of the front sidewalk. (Any closer to the curb presents a conflict with car doors.)



TRADITIONAL FRONTAGES: FROM MOST URBAN TO MOST RURAL, A RANGE OF SEMIPRIVATE ATTACHMENTS ADORN THE PUBLIC REALM.

**8.8. Attachment Dimensions**

Bay windows and balconies should be between 6" and 3' deep; if balconies become any deeper, people use them as outdoor closets. Stoops should be between 3' and 6' deep, and may be covered. Porches should be between 6' and 12' deep; any shallower, and they will not be used. Awnings should be between 4' and 10' deep; any shallower, and they provide no protection. Arcades should be between 10' and 20' deep; any shallower, and they become congested.



NEWPOINT, SOUTH CAROLINA: PORCHES ARE 10' DEEP, WHICH ALLOWS THEM TO BE TRULY USEFUL.

**8.9. Simple Streetwalls**

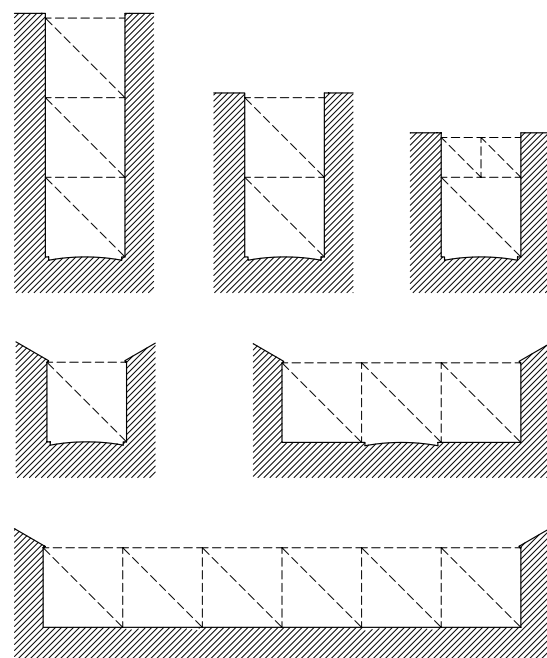
If building facades or silhouettes are too busy, they are not effective at defining the edges of the public space. Just as the most comfortable rooms are square or rectangular, the most comfortable streets are lined by relatively flat walls. For this reason, buildings should have flat fronts and simple roofs. This technique saves money, which can then be more effectively spent on wings and articulations at the rear, shaping a private rear yard.



*HYPERACTIVE CLASSICISM: DESIGNED TO STAND ALONE, MANY CONTEMPORARY HOUSES ATTEMPT TO CREATE THE IMAGE OF AN ENTIRE VILLAGE, RESULTING IN A CHAOTIC STREETScape.*

**8.10 Building Heights**

Just as short setbacks result in a better-enclosed streetspace, so do taller buildings. One-story stores, and offices fail to give a strong edge to the main street, and should be avoided. One-story houses are acceptable towards the rural neighborhood edge, but should be avoided elsewhere. The exception is small houses (1500 s.f. or less), which should be allowed throughout the neighborhood. Generally speaking, buildings at the neighborhood center should be 2 stories or more (3 is better), buildings at the neighborhood edge should be 2 ½ stories or less, and buildings in between should be 2 - 3 stories, with the exception of cottages. Houses with a small second story should place the upstairs area at the front of the house. These height suggestions would increase dramatically in high-density neighborhoods.



*THE USE OF TALL BUILDINGS: WIDER SPACES REQUIRE TALLER BUILDINGS OR THEY LACK A SENSE OF ENCLOSURE. GENERALLY, A HEIGHT TO WIDTH RATIO IN THE RANGE OF 2:1 TO 1:3 IS IDEAL, WHILE SPACES WIDER THAN 6:1 ARE NOT SUCCESSFUL.*

## CHAPTER 9

### PARKING

*In TNDs, off-street parking and garage doors are hidden from view, typically at the center of the block. All but the largest residential lots are served by rear lanes, bringing the garage behind the house. Parking lots are planted with trees and provide frequent pedestrian access to surrounding streets through midblock passages. Internalized passages from parking structures to buildings are avoided, so that pedestrians use the sidewalk. Since parking is shared between complimentary uses – and much parking is also provided on the street – parking lot requirements can be reduced.*

#### 9.1. Rear Lanes

Houses on narrow lots, if served by a front driveway, present little more to the street than garage doors. In addition, the frequent curb cuts make parallel parking very inefficient. The solution is the rear lane, which allows houses to hide their garages to the rear. Ideally, every house on a lot narrower than 60' should be served by a rear alley. Rear garages should be placed directly against the alley, or within 20' if additional parking is required. Apartment houses should also place their parking to the rear, accessed by the rear lane.



STREETS WITHOUT GARAGES: IN KENTLANDS, MARYLAND, REAR LANES ALLOW HOUSES ON 50'-WIDE LOTS TO LOOK LIKE MANSIONS.

#### 9.2. Front Garage Setback

Although wider lots also benefit from rear-lane access, they must be allowed front driveways if no alley is provided. In this case, there are several ways to reduce the visual impact on the street. One solution is to rotate the garage 90 degrees to create a front parking court, which takes the garage door off the street. If the garage is not rotated, it should at least be pulled back 20' from the front of the house, so that cars parked in front of the garage are typically shielded from angle views by the housefront. This 20' setback has a dramatic impact on the streetspace, as many people use their garages for storage, leaving their cars outside.



SETTING BACK THE CARS: A 20' GARAGE SETBACK REMOVES PARKED CARS FROM THE

**9.3. Hiding Parking Lots**

In urban areas, nothing destroys pedestrian life faster than exposed parking lots. In new plans, parking lots should always be located in the middle of enlarged blocks, so that occupied buildings hide them from adjacent streets. Only the parking lot entrance should be visible from the outside of the block. Parking structures, if placed against street edges, should similarly have an occupied building – 20'-deep apartments above ground-floor shops are ideal – between them and the street. Many cities now insist that all new parking structures include ground-floor retail space. In older communities blighted by parking lots, thin liner buildings should be considered. In their absence, an attractive wall, approx. 4' tall, should be built at the edge of the lot.



THE LOT-LINER: TO HIDE PARKING LOTS IN BATON ROUGE, A NEW BUILDING TYPE WAS INTRODUCED THAT PLACES AFFORDABLE APARTMENTS ABOVE PARKING SPACES.

**9.4. Parking Lot Quality**

Surface parking lots benefit greatly from tree cover. Street trees should be planted between car rows at a minimum distance of 30' on center. These trees may be located in a curbed tree strip, or in grates within the pavement. This arrangement results approximately in a tree ratio of one tree for every 10 cars. Structured parking lots need to be well lit, and ideally receive natural light from most sides. This is less important than hiding them from street fronts, but is still a worthy goal.



CORAL GABLES, FLORIDA: THE VAST PARKING LOT AT THE BILTMORE HOTEL CONTAINS WITHIN IT PERIODIC TREE-LINED PASSAGES TO THE HOTEL ENTRY.

**9.5. The Pedestrian Passage**

When rear parking lots are hidden from front shopping streets, the passage between the two must be convenient and pleasant. The best solution is to provide frequent pedestrian passages through the block, perhaps one every 150 feet. These passages should be 10' - 20' wide, and should ideally be shaped into a series of intimate, landscaped spaces. They should be lined with shop windows, which add to their interest and provide merchandizing opportunities.



THE "PASEO:" THE TRANSITION FROM PARKING TO SHOPPING IS MADE INTO A POSITIVE PEDESTRIAN EXPERIENCE.



**9.6. Using the Sidewalk**

Many new office buildings and convention centers, which should add life to their neighborhoods, fail to do so because they take the form of isolated pods. Structured parking lots, through hallways and bridges, lead directly into the buildings they serve, bypassing the street entirely. If they are to contribute to pedestrian life, structured parking garages should deposit all visitors on a city sidewalk. Ideally, the parking structure should be a block or two away from its patrons' destination, with stores and restaurants in between. It is through such strategic placement of anchors that downtowns can be revitalized.



*SALINA STREET: PEDESTRIAN BRIDGES PROTECT PEOPLE FROM THE COLD, BUT OFTEN AT THE EXPENSE OF AN ACTIVE STREET LIFE.*

**9.7. Parking Requirements**

Traditionally-organized neighborhoods require fewer parking spaces than suburban pods, for several reasons. First, they offer a large number of on-street spaces. Second, they offer opportunities for shared parking, where different uses require spaces at different peak-hour times — offices with cinemas, for example. Third, they allow some people to live without a car, especially when good transit service is provided. For these reasons, mixed-use neighborhoods should not be held to suburban parking standards. Commercial parking should be held to no more than three spaces per 1000 s.f., and residential parking should be held to no more than one space per two bedrooms. These numbers presume no significant transit service, and can become lower if a good transit system is in place. Sites with excellent transit service should not be required to provide any parking at all.



*A SUBURBAN NECESSITY: LARGE PARKING LOTS ARE UNAVOIDABLE WHENEVER SINGLE-USE ZONES ARE ACCESSIBLE ONLY BY CAR. HOWEVER, THE PRESENCE OF MIXED USE, PEDESTRIAN ACCESS, AND/OR DECENT TRANSIT ALLOWS PARKING LOTS TO BE SMALLER.*

**9.8. Off-Site Parking**

Requiring parking demands to be met on site robs pedestrians from neighborhood sidewalks. Within pedestrian-oriented areas, buildings should be allowed to satisfy their parking requirements with spaces located as far as a quarter-mile away. Such spaces are ideally provided in midblock municipal lots and structures.



*MIAMI BEACH, FLORIDA: A NEW MUNICIPAL LOT PRESENTS A GREEN SOLUTION TO CONSOLIDATED PARKING DEMANDS.*

## CHAPTER 10

### HOUSING

*TND neighborhoods provide a fully inclusive range of housing stock, so that the young and old, the poor and wealthy, singles and families can all live in proximity, and so that one can move to a bigger or smaller home without leaving one's social network behind. Traditional forms of affordable housing are provided in small increments in every neighborhood, to avoid concentrations of poverty.*

#### 10.1. Inclusive Housing

Every neighborhood should include a wide range of dwelling types. Even small developments should avoid limiting their housing product to one cookie-cutter product. By providing many different forms of housing, developers can access multiple market segments on the same infrastructure, resulting in a faster product absorption. By requiring a mix of dwelling types, municipalities can provide healthy, diverse neighborhoods. In new neighborhoods, developers should be asked to provide housing from most of the categories that follow. As long as the neighborhood is itself diverse, individual streets within the neighborhood may be more uniform.

- A. Apartments above commercial space;
- B. Multifamily apartment buildings;
- C. Rowhouses, typically 16' to 24' wide;
- D. Live/work buildings (rowhouses or houses with 1<sup>st</sup>-floor offices or shops at front);
- E. Cottages on small lots (30'-40' wide), with 4' side setbacks;
- F. Houses on standard lots (40'-70' wide), with 8' side setbacks;
- G. Houses on large lots (over 70' wide), with 12' side setbacks.



*PLANNED FOR DIVERSITY: A TYPICAL BLOCK IN KENTLANDS HOLDS MANSIONS, ROWHOUSES, AND GARAGE APARTMENTS.*

#### 10.2. Affordable Apartments over Retail

As already discussed, one-story buildings do not provide a tall enough edge to enclose a main street. Retail shops should construct two stories or more, and the upstairs space may be used for offices or apartments. The use of these spaces as apartments should be encouraged, for several reasons: the land is already paid for, so the space can be provided for the cost of construction alone; on-street parking is typically ample in the evenings; and housing above shops provides much-needed street supervision overnight. Municipalities with affordable housing programs are encouraged to subsidize retail developers to provide these apartments.



*PRINCETON, NEW JERSEY: APARTMENTS ABOVE SHOPS PROVIDE INEXPENSIVE HOUSING CLOSE TO DOWNTOWN.*

### 10.3 Affordable Garage Apartments

One of the best ways to provide affordable housing is the outbuilding, or granny flat, which is most often an apartment over the garage. The outbuilding places affordable housing inconspicuously into stable single-family neighborhoods. It provides a built-in policing mechanism, since the landlord in the principal dwelling is personally responsible for the supervision of the typically younger tenant. As an added benefit, rental payments from the outbuilding help pay the mortgage on the main house, bringing home ownership within closer reach of the middle class. Every single-family house should be permitted to contain a small ancillary dwelling unit in its backyard.



*THE GRANNY FLAT: AN OUTBUILDING IN THE REAR OR SIDE YARD PROVIDES AFFORDABLE HOUSING FOR THE TENANT AND MORTGAGE ASSISTANCE FOR THE LANDLORD.*

### 10.4 Two Rules of Subsidized Housing

The history of subsidized housing in the United States teaches two lessons that are too often ignored. The first is that subsidized housing should not look different from market-rate housing. Both building typology and architectural syntax should be used to blend it in with middle class housing. The second lesson is that subsidized housing should not be provided in concentrations, since concentrations of poverty can lead to dangerous pathologies. Rather, it should be distributed sparsely among market-rate housing, in order to avoid neighborhood blight and reinforce positive behavior. Subsidized housing should be integrated invisibly into market-rate housing at a ratio of no more than one in ten.



*TYPICAL SUBSIDIZED HOUSING: GROUPED INTO HOMOGENEOUS CLUSTERS AND STIGMATIZED BY AN UNCONVENTIONAL ARCHITECTURAL SYNTAX.*

## CHAPTER 11

### PRIVACY

*Lots in TNDs tend to be smaller, on average, than in conventional suburbia, but they are also more private and useful. Shorter front setbacks allow for deeper rear yards – often between the house and a garage or outbuilding – which are hidden by walls and fences. Residential buildings near the sidewalk gain extra privacy by rising several feet above grade and using window muntins.*

#### 11.1. Alley Privacy

A rear lane will destroy the privacy of the rear yard if no protection is provided. On narrow lots, the garage may hide the entire yard from the alley. In all other cases, homebuilders should additionally provide a fence, wall, or shrub. Privacy fences are typically 6' tall. In less dense situations, developers may want to treat the alley as a country lane, with barriers that are somewhat lower, but in no case should the wall, fence, or shrub be less than 3' tall.



*PRIVATE REAR YARDS: FENCES BETWEEN GARAGES ARE NECESSARY TO HIDE GARDENS FROM THE ALLEY.*

#### 11.2. Rowhouse Garden Privacy

The traditional rowhouse provides a garden or patio between the main building and its rear garage. This space is essentially unusable unless privacy fences or walls are placed on shared side property lines. These should be 5' to 7' tall.



*WINDSOR, FLORIDA: SIDE WALLS TURN ROWHOUSE GARDENS INTO HABITABLE SPACES. A WELL-PLACED REAR WING CAN ALSO ADD PRIVACY.*

### 11.3. Ground-Floor Apartments

Ground-floor apartments close to the sidewalk are almost uninhabitable unless they are raised. Any apartment within 10' of the sidewalk should be elevated at least 2', with its window sills above the eye level of passing pedestrians. An alternative solution is to place a 3'- to 5'-tall garden wall and gate at the sidewalk edge, fronting a garden at least 6' deep.



*EXPOSED TO THE SIDEWALK: A GROUND-LEVEL APARTMENT, LACKING PRIVACY, IS AVOIDED BY ALL BUT THE MOST EXHIBITIONIST RENTERS.*

---

### 11.4. Muntins

Window muntins are an underrated tool for providing residential privacy. When a window has muntins in it, people both inside and out tend to focus on the window plane itself rather than on what is beyond. Muntins should be encouraged in residential buildings — and discouraged in shopfronts, for the same reason.



*FAR FROM SIMPLY A STYLISTIC DEVICE, WINDOW MUNTINS AFFORD A PRIVACY TO RESIDENCES NEAR THE STREET.*

## CHAPTER 12

### ARCHITECTURAL SYNTAX

*In their architecture, TNDs acknowledge that regional styles develop in response to climate and culture, and that the most appropriate and ecological buildings are in keeping with local building traditions. Furthermore, TNDs recognize the value of stylistic consistency as a tool for masking the distinctions between different-income housing types. As a result, buildings within a TND tend towards consistency of materials, roof pitches, and window proportions, all of which are climatically determined. A focus on regional traditions also leads to simpler buildings and the avoidance of some of the awkward details that have come to characterize recent building practice.*

#### 12.1. Regional Syntax

While not always the case, local historic building traditions often contain a tremendous amount of wisdom regarding local weather conditions. The slope of the roof, the length of the eaves, the shape of the windows, these characteristics and others have often developed in response to local climate. Therefore, the most ecologically-oriented design is often based on local traditions, especially if such traditions made use of natural materials available in abundance locally. In addition, the continuation of local building traditions emphasizes a place's cultural heritage, while stemming the tide of suburban uniformity, in which every place begins looking like every other.



BRUGES, BELGIUM: NOT A RANDOM STYLE, BUT ONE DERIVED FROM LOCAL CLIMATE AND TRADITION.

#### 12.2. Consistency

The most beautiful neighborhoods throughout the world, while quite different from each other, tend to be internally quite consistent. While they include buildings of many types and sizes – thus avoiding the *cookie cutter* label – these neighborhoods usually share the same palette of materials, colors, roof pitches, and window proportions. New neighborhoods should be encouraged to limit these items to within a certain range.



GEORGETOWN: THE MOST MEMORABLE PLACES RESULT FROM CONSISTENCY, NOT VARIETY, OF STYLE.

**12.3. Fenestration Ratio**

Like roof pitch, the ratio of window to wall should be locally determined. With rare exception, this ratio will be below 35%, which is also a wise limit for reducing energy costs. Of course, retail frontages are exempt, and should aim for 75% fenestration.



HANOVER SQUARE: THE PROPER WALL-TO-WINDOW RATIO FOR RESIDENTIAL AND RETAIL FACADES.

**12.4. Limited Materials**

Unduly busy facades detract from the quality of a streetspace. One way in which facades are unnecessarily complicated is through the inclusion of too many different materials. Houses may be stucco and wood, or wood and brick, but there is little reason for a house to be stucco, wood, *and* brick. Each building facade should be limited to two wall materials, textures, or colors. If two materials are used, the heavier-looking material should be located below the lighter one, or else the result seems silly.



AWARD WINNER: SHOWING A RESTRAINT UNCOMMON IN TODAY'S REAL ESTATE PRACTICE, THIS HOUSE DEMONSTRATES HOW A LIMITED MATERIAL PALETTE PRODUCES THE MOST HANDSOME FACADES.

**12.5. Noxious Details**

Certain contemporary building practices and elements undermine the provision of attractive street space. For example, snap-in window muntins are a necessary evil, but nothing looks stranger than a muntin behind glass; interior snap-in window muntins should be masked by exterior snap-in muntins. Each building is entitled to behave however it wants in its private yard, but all of the following should be avoided where visible from a public street or space: hyperactive parapets and roofs, radar dishes antennas, air conditioning units, bubble windows, and direct-vent and prefab fireplaces.



ANTI-PEDESTRIAN DEVICE: A LARGE RADAR DISH BLIGHTS ITS NEIGHBORHOOD.

While it is not as descriptive as the Guidelines, the TND Checklist summarizes those guidelines, and provides a quick method of assessing whether a proposed development corresponds to the principles and techniques outlined here. While there are always exceptions, most Traditional Neighborhood Developments correspond to most of the rules that follow. All of these principles have a significant impact on the quality of a development, but only those marked with an asterisk (\*) are essential and nonnegotiable.

The checklist is intended to regulate the development and redevelopment of large parcels of land, and some of the provisions that follow are only applicable to areas of 40 acres or more. These provisions are marked with a plus sign (+). However, the remaining provisions are equally applicable to smaller projects, including inner-city projects.

1. REGIONAL STRUCTURE

- 1.1.\*+ Is the TND location consistent with a comprehensive regional plan with that includes a transit and open-space-preservation strategy.
1.2.\* Is the TND connected in as many locations as feasible to adjacent developments and thoroughfares?
1.3.\* Do highways approaching the TND either pass to its side or take on low-speed geometries when entering it (as further described in Section 6).
1.4.\* In regional transportation planning, are any decisions to add new highways or new lanes tempered by a full understanding of the phenomenon of Induced Traffic?
1.5.\*+ Are plans for large sites divided into neighborhoods, each roughly a five-minute walk from edge to center? (This pedestrian shed averages one quarter of a mile.) Centers can be peripherally located in response to a site condition, such as the railroad station at Forest Hills Gardens, NY. Centers can also be linear, such as a continuous retail corridor along a streetcar line.

2. NATURAL CONTEXT

- 2.1.\* Are wetlands, lakes, streams, and other significant natural amenities retained?
2.2.\* Are significant natural amenities at least partially fronted by public spaces and thoroughfares rather than hidden behind backyards?
2.3.\* Is the site developed in such a way to maximize the preservation of specimen trees and significant groups of trees, locating greens and parks at tree-save areas?
2.4.\* Does the plan work with the site topography to minimize the amount of mass grading necessary?
2.5. Are significant hilltops celebrated with public tracts and/or civic buildings, and are mountaintops and major ridge-tops kept clear of private development?
2.6.\*+ Are any large areas of open space connected into continuous natural corridors? Such corridors shall either be located between neighborhoods, or may pass through neighborhoods in the form of thin greenways.

3. LAND USE

- 3.1.\*+ Does each neighborhood provide a relatively balanced mix of housing, workplace (home and office), shopping, recreation, and institutional uses?
3.2.\*+ Do commercial activity and housing density increase towards the neighborhood centers?
3.3.\*+ Is each neighborhood center the location of retail space – a corner store (subsidized if necessary) is required in all developments containing at least 300 residences and/or jobs?

- 3.4.\*+ Is each neighborhood center the location of office space, ideally located in mixed-use buildings?
3.5.\*+ Is there a sheltered, dignified place to wait for transit at each neighborhood center?
3.6.\* Are lots zoned by compatibility of building type?
3.7. Do most changes in allowable building type occur at midblock rather than mid-street, so that streets are coherent on both sides?

4. PUBLIC BUILDINGS AND SPACES

- 4.1.\*+ Is there a public space such as a square, plaza, or green at each neighborhood center?
4.2.\*+ Does each neighborhood reserve at least one prominent site for a meeting hall, typically at the neighborhood center?
4.3.\*+ Are elementary schools, day-care centers, and recreational facilities located within one mile of most dwellings, and sized accordingly?
4.4.\*+ Are there small playgrounds distributed evenly through each neighborhood, roughly within one eighth of a mile of every dwelling?
4.5.\* Do all public tracts within each neighborhood correspond to well-understood socially-useful open-space types, such as a park, green, square, or plaza, as defined in the Lexicon of the New Urbanism?

5. THE THOROUGHFARE NETWORK

- 5.1.\* Are streets organized in a comprehensible network that manifests the structure of the neighborhood?
5.2.\* Are cul-de-sacs avoided where not absolutely necessary due to natural conditions?
5.3.\* Do blocks average less than 600' in length and less than 2000' in perimeter?
5.4.\* Are all streets within the neighborhood faced by building fronts or public tracts, rather than serving as collector roads with no purpose other than handling traffic.?
5.5. Are most street vistas terminated by either a public tract, a view of a natural feature, a deflection in the street, or a carefully-sited building (e.g.: the view is focused on a gable or porch rather than a garage door or a slot)?
5.6.\* Do most streets that curve maintain the same general cardinal orientation over their entire trajectory (except where steep grades dictate otherwise)?

6. STREET DESIGN

- 6.1.\* Is there a full range of streets, including most or all of the following?:
a. Main street, approximately 34' wide including marked parking on both sides;
b. Through avenue (optional) including a 10' - 20' treed median separating two one-way lanes, each approximately 18' wide including marked parking on one side.
c. Through streets, approximately 27' wide including marked parking on one side;
d. Local streets, medium density, approximately 26' wide including unmarked parking on both sides.
e. Local streets, low density, approximately 20' wide including unmarked parking on one side.
f. Commercial rear alleys, approximately 24' wide within a 24' R.O.W.



\_\_\_ g. Residential rear lanes, approximately 12' wide within a 24' R.O.W.

(Projects less than 40 acres should select the appropriate streets from the above menu.)

\_\_\_ 6.2.\* Are street geometries based upon a design speed no greater than 30 m.p.h. within the neighborhood, 20 m.p.h. on local streets?

\_\_\_ 6.3. Are unconventional (traditional) roadway geometries – such as forks, triangles, and staggered intersections – provided to calm traffic?

\_\_\_ 6.4.\* Is the curb radius at intersections a maximum of 15', 25' in rural areas? (Larger radii are allowed where required by the turning radii of emergency equipment or delivery vehicles, provided that such equipment is the appropriate size.)

\_\_\_ 6.5.\* Are one-way streets — and streets with more than one lane in each direction — avoided in all but the most urban circumstances, with densities of over 50 units per acre? If four-lane streets cannot be avoided in low-density areas, such streets must skirt neighborhoods rather than passing through them.

**7. PUBLIC STREETScape**

\_\_\_ 7.1.\* Do all streets other than alleys have a sidewalk on at least one side, 4' to 5' in width, 12' to 20' wide on the main street (both sides)? (Exemptions granted in extremely low-traffic or slow-traffic conditions.)

\_\_\_ 7.2.\* Does every noncommercial street include, between the roadbed and the sidewalk, a tree strip 4' to 10' in width, of indigenous shade trees planted at a minimum average of 30' on center?

\_\_\_ 7.3.\* Does every commercial street include indigenous shade trees planted at an average of 30' on center, located in sidewalk-level planters, typically placed in line with the party-walls between shops (optional in the presence of arcades or conflicting awnings)?

\_\_\_ 7.4. Are street materials simple, with asphalt carpaths and trowel-finished concrete sidewalks? Brick sidewalks are unnecessary, but commercial sidewalks should include a 4'-6' brick strip connecting the planters, for root health.

\_\_\_ 7.5. Are all streetlights, mailboxes, trash receptacles, and other pedestrian obstructions placed within the tree strip, except main street benches, which should back up to building fronts.

\_\_\_ 7.6. Are all unsightly transformers, lift stations, utility meters, HVAC equipment, and other machinery located not in the front streetscape but at the rear lane or alley?

\_\_\_ 7.7. Are streetlights of low height and wattage, and provided frequently towards neighborhoods centers (approx. 30 ft. on center) and less frequently towards rural edges (at intersections only)?

\_\_\_ 7.8. For neighborhoods that are located adjacent to nature, does the streetscape become more rural as it approaches the neighborhood edge (with curbs becoming open swales and trees becoming less formal in their placement)?

**8. THE PRIVATE STREETScape**

\_\_\_ 8.1.\* Do all commercial buildings front directly on the sidewalk, with no setback?

\_\_\_ 8.2.\* Are all shop entrances located directly at the public streetfront (no malls or gallerias), with any rear entrances for employees only?

\_\_\_ 8.3.\* Are storefront signs no greater than 24" tall, and blade signs no greater than 12" tall, with translucent signs and sign-awnings prohibited?

\_\_\_ 8.4. Are store architects provided with the latest retail design advice, such as that included in the *TND Guidelines*?

\_\_\_ 8.5. Are residential buildings placed relatively close to the street,

such that houses are generally set back about one-quarter the width of the lot? (This results in shallower setbacks towards neighborhood centers.)

\_\_\_ 8.6. Do all main entrances present a positive image, rather than being voids between buildings?

\_\_\_ 8.7.\* Do the front setbacks permit the encroachment of semiprivate attachments such as bay windows, balconies, stoops, open porches, awnings, and arcades? Commercial awnings may overhang the public sidewalk, and arcades must cover all but two feet of the sidewalk width. Both may place supports on the sidewalk.

\_\_\_ 8.8. Are bay windows and balconies between 6" and 3' deep, stoops between 3' and 6' deep, porches between 6' and 12' deep, awnings between 4' and 10' deep, and arcades between 10' and 20' deep?

\_\_\_ 8.9. Do buildings have flat fronts and simple roofs, with any wings and articulations at the rear?

\_\_\_ 8.10. Are all buildings other than small homes (less than 1500 s.f.) of 2 stories or more, except in rural areas, where buildings taller than 2 ½ stories are prohibited?

**9. PARKING**

\_\_\_ 9.1.\* Do most residential lots smaller than 60' wide (and apartment house lots) access their parking via a rear lane (or alley), with front driveways prohibited?

\_\_\_ 9.2.\* Are all garages not served by a rear lane set back a minimum of 20' from the front of the house, or rotated so that garage doors do not face adjacent streets?

\_\_\_ 9.3.\* Are all parking lots located behind buildings or streetwalls, such that only their access is visible from adjacent streets?

\_\_\_ 9.4. Are all surface parking lots planted with indigenous shade trees, at a minimum ratio of one tree per 10 cars, and do all structured parking lots receive natural light from most sides?

\_\_\_ 9.5.\* Is the transition from rear parking lots to front shopping streets handled by pedestrian passages lined by shop windows?

\_\_\_ 9.6. Do structured parking lots not lead directly into the buildings they serve, but instead deposit pedestrians directly onto front sidewalks?

\_\_\_ 9.7.\* Are the parking requirements reduced to a maximum of three parking spaces per 1000 s.f. of commercial space, and one parking space per two residential bedrooms, with lower requirements in locations with good transit service?

\_\_\_ 9.8.\* Are buildings permitted to satisfy their parking requirements with spaces located within one quarter of a mile from the building itself?

**10. HOUSING**

\_\_\_ 10.1.\* Does each neighborhood include a wide range of dwelling types? There should be a 5% minimum representations of at least five of the following categories:

- \_\_\_ a. Apartments above commercial space;
- \_\_\_ b. Multifamily apartment buildings;
- \_\_\_ c. Rowhouses;
- \_\_\_ d. Live/work buildings (rowhouses or houses with 1<sup>st</sup>-floor offices or shops at front);
- \_\_\_ e. Cottages on small lots (30'-40' wide);
- \_\_\_ f. Houses on standard lots (40'-70' wide);
- \_\_\_ g. Houses on large lots (over 70' wide).

(Projects less than 40 acres should have a 10% minimum representation from at least *three* of the above categories.)

- \_\_\_ 10.2. Do all commercial buildings have a second story (or more) for use as housing or offices?
- \_\_\_ 10.3.\* Is each house lot permitted to contain a small ancillary dwelling unit in the backyard, typically as an apartment over the garage?
- \_\_\_ 10.4.\* Is subsidized housing stylistically indistinguishable from market-rate housing, and provided in increments of no more than one subsidized unit per ten market-rate units?

## 11. PRIVACY

- \_\_\_ 11.1.\* Do all houses served by alleys have a 3'- to 6'-tall fence, wall, or shrub on the rear property line?
- \_\_\_ 11.2.\* Do all rowhouses have 5'- to 7'-tall privacy fences between rear gardens on shared side property lines?
- \_\_\_ 11.3.\* Are all first-story apartments raised a minimum of 2' if located within 10' of the sidewalk, with window sills above the eye level of passing pedestrians?
- \_\_\_ 11.4. Are window muntins encouraged on residential buildings (for privacy), but discouraged on retail fronts?

## 12. ARCHITECTURAL SYNTAX

- \_\_\_ 12.1. Is regional architectural syntax used as a basis for ecologically responsible design?
- \_\_\_ 12.2. Are window proportions, roof pitches, building materials, and colors limited to a harmonious range, as regionally determined?
- \_\_\_ 12.3. Is the ratio of fenestration to wall of building facades kept below 35%, except at retail frontages, which are a minimum of 65% fenestration?
- \_\_\_ 12.4. Does no building facade display more than two wall materials, textures, or colors? If two materials are used, the heavier (looking) material shall be located below the lighter.
- \_\_\_ 12.5. Are all of the following avoided where visible from a public street or space: hyperactive parapets and roofs, interior snap-in window muntins (unless masked by exterior snap-in muntins), radar antennas, . . . (get Rosemary Beach list) ?