

REGIONAL DESIGN

*A Report of the
Regional Design System
State Planning Advisory Committee*

November 1990

**State
Development**
AND
**Redevelopment
Plan**

PREFACE

Purpose

The mission of this Regional Design System-State Planning Advisory-Committee (RDS-SPAC) is to advise the State Planning Commission and the Office of State Planning on the conception and potential effectiveness of the Regional Design System of the proposed State Development and Redevelopment Plan.

Committee Membership/Acknowledgments

The following are the members of the Regional Design System State Planning Advisory Committee who have generously contributed their time and efforts in order to produce this first report:

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In addition , the Committee benefitted from the input of Lou Donaldson, State Association of Soil Conservation Districts; Jim Leva, New Jersey Utilities Association; and Harry Mahler, The Grad Partnership.

Members of the public that have added to the dialogue should also be acknowledged, especially John Carlton, Carlton Design; William Kruse, Middlesex County Planning Board; Dawn Malone, K. Hovnanian Company; David Mullaney, Mercer County Planning Division and Christy Van Horn, New Jersey Future.

The Committee and staff thank Jim McGuire of the Center for Dispute Resolution for his professional facilitation throughout this process. Diane Brake assisted in this effort and should also be recognized.

Meetings

The Regional Design System SPAC convened on January 30, February 28, April 4, May 2, June 13, July 9, September 17 and October 22, 1990 in Voorhees, New Brunswick, Trenton and Pennsauken to organize, engage in discussions on the Regional Design System in the Preliminary Plan, and identify the boundaries of debate and areas of consensus. Recommendations were identified during each of these meetings and were noted in summaries produced after each meeting. Additional reports will be forthcoming, following the second and third phases of the SPAC process.

Discussion

During the course of its deliberations, the committee considered a number of items pertinent to the Regional Design System. They included regional considerations such as the importance of thinking regionally, what are regions, what is regional design, and factors that comprise the regional perspective. The group also focussed on communities of place, their regional role, and their characteristics. Central to the debate throughout were implementation concerns. - how to do regional design. The committee received support from the Office of State Planning (OSP). John Canuso, a committee member, presented his firm's recent project, "Main Street" in Voorhees Ttownship, at the group's initial meeting, held at "Main Street's" community building.

The committee meetings were facilitated fcy James McGuire, staff mediator for the Center for Public Dispute Resolution. A consensus process was used to reach agreements, major findings, and recommendations. Two subcommittee meetings were held at the latter stages to review OSP staff work on the attached document presenting the Regional Design System.

The main conclusions of the committee are presented below in the section titled "Findings and Recommendations." In addition, the attached document titles The Regional Design System, and its Executive Summary, were prepared by OSP staff with extensive committee participation through its meetings and written editorial and conceptual suggestions. This report embodies the direction of the committee without necessarily reflecting full consensus on all its points. Rather, it is an evolving document, representing a "snapshot" of the development of the committee's and staff's thinking. It contains a wide range of ideas, reflecting the diversity of the membership.

This advisory committee also considered an issue regarding another component of the Preliminary State Plan's growth management system. This issue, whether to retain the "Tier System" or adopt a new name, "Policy Areas", was resolved with a majority of the committee supporting the retention of "Tiers" as indicated on the attached resolution.

Findings and Recommendations

1. The Regional Design System is central to the State Development and Redevelopment Plan. Development of the system should continue, with an emphasis on its implementation.
2. The regional perspective in land use decision-making is central to the Regional Design System. Among the regional factors to consider include:
 - * natural environment
 - * neighboring communities
 - * overlapping and neighboring regions
 - * agriculture and other natural resource based activities
 - * housing availability and affordability
 - * social and cultural milieu
 - * State, national, and global economies
 - * infrastructure
3. New villages and hamlets should be permitted in agricultural and environmentally sensitive areas (designated as Tiers six and seven in the Preliminary State Plan). These new communities should meet performance criteria established in the State Plan.
4. Small and intermediate scale sewage disposal facilities are vital fore the protection of public and environmental health in the maintenance or expansion of existing hamlets, villages, and smaller towns, and the creation of new ones.

5. Model ordinances, community design handbooks, and legislative recommendations such as changes to municipal and county planning enabling legislation should be prepared under the leadership of the Office of State Planning to further the implementation of the Regional Design System.
6. Legislation enabling the Transfer of Development Rights (TOR) would significantly enhance the implementation of the Regional Design System
7. A multi-dimensional public education campaign to educate public officials, citizens, interest groups, and development professionals on regional design should be undertaken as soon as possible, under the direction of the OSP. The existing network of organizations involved in the State planning process can assist in this regard.
8. The Regional Design-State Planning Advisory Committee desires that it continue to participate actively in the development of regional design, furthering its role in the State Plan and its dissemination.

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I. THE REGIONAL DESIGN IMPERATIVE

Regional design shapes the physical form of regions. It takes a regional perspective in guiding the arrangement of human settlements/ preferably in communities. Regional design strives to connect these communities by transport and communication lines into regional networks. Keeping the fringes or environs of the communities relatively sparsely settled is another aim. Communities, the links among them, and their environs are the three key physical components of regions that are the objects of regional design.

The Regional Design System is a growth management system that embodies the key organizing principle of the New Jersey State Plan Communities of Place. It is a new kind of growth management system in that it recognizes that most of the problems that growth management tries to solve are both regional and inter-community in nature. These problems spill across the landscape without regard to municipal and county borders. The solutions to these problems must be regional. In a regional context collaboration (i.e., working with others outside of one's municipality or county) is the driving force behind regional design.

The Regional Design System uses a differentiated settlement strategy that builds upon the rich legacy of existing cities, towns and villages. It emphasizes a priority of public investment towards these central places, reinforcing the preservation of environmental resources. This strategy also distributes the costs and benefits of growth more equitably, both geographically and demographically. In these regards and others, it responds to the key mandates of the State Planning Act. The Regional Design System does not mean the loss of local planning prerogatives or powers; rather the objective is to strengthen local planning by providing a larger context for rational growth management.

Effectively applied, regional design encourages growth which advances the public interest by: using existing public facilities and services efficiently; locating a variety of uses in close proximity to facilitate community growth without increasing traffic congestion; responding to changing demographics such as smaller household size, increased number of women in the workforce, two-income households and single parent households; preserving the natural resources; and reducing the loss of agricultural and other open lands.

Communities of place are the cornerstone of the Regional Design System. To enhance the rich diversity of communities that pepper New Jersey, and to create new ones, this strategy organizes growth in and adjacent to existing and planned central places. In these places public and commercial services can be provided most efficiently. The Regional Design System also focuses on the links among communities, assuring ample capacity of infrastructure to enable communities to function effectively.

This report is organized into three sections. The first - historical and current trends - sets the stage with examples of regional design principles that have guided New Jersey's growth in the past and how current trends need to be reshaped to enhance the growth and to ensure a more prosperous future. The second section describes the regional design system

and its components - regions, communities, linkages, and environs. The final section outlines how the system can be applied by those involved in the development of communities - citizens, builders, developers, public officials, professional consultants, and educators.

II. PAST AS PARADIGM, PRESENT AS PARADOX

A. NEW JERSEY AS A LEADER

New Jersey has long been the place where important events first occurred. From America's first planned industrial city, Paterson, to the inventions of native sons like Thomas Alva Edison and Alexander Graham Bell, New Jersey helped establish America's status as the world leader in technology and industry. From America's first planned "garden cities," Llewellyn Park and Radburn, to the invention of the transistor and other Nobel Prize winning advances in computers, telecommunications and physics by Bell Labs and Princeton University laureates? the Garden State continues to set the pace. Agricultural firsts, such as hybrid blueberries, cultivated by native daughter Elizabeth White, are another example of New Jersey's contribution to the world.

As a fertile ground for innovation, New Jersey has made its mark in community planning. The purpose of this brief historical picture is to highlight the pioneering settlement forms that have made New Jersey a desirable place to live and work. By examining what makes these places desirable and how these places have influenced the way other communities have grown, the principles that were successful in the past can be extracted in an attempt to gain an understanding of how they can be applied today.

Additionally, this historical sketch covers some of the mistakes made in recent times. Knowing what went wrong and why is just as important as learning from successes.

B. CHANGES IN URBAN-RURAL RELATIONSHIPS

1. City and Country

The need to strike an balance between town and country, a recurrent theme in urban history, can be traced in New Jersey. A booming industrial economy located along the principal waterways connecting the metropolitan centers of New York and Philadelphia grew parallel to the rurally based agrarian economy. Cities grew rapidly during the industrial age. An influx of new job seekers into our cities and towns created housing shortages and overcrowding.

People who could afford to escaped to the suburbs. The flight out of the industrial core was as much an embrace of a rural ideal as it was an attempt to escape the conditions of the overcrowded and impersonal urban areas. Smaller suburban and rural communities offered cheap land, and represented security and pleasant open spaces. The transportation networks and utility extensions constructed after World War II, easy access to cheap credit for single family housing, lower taxes, and inexpensive gasoline, among other factors, prodded this outward movement.

Jobs followed and urban areas experienced decline. Low-income residents became concentrated and the demand for government services grew as fiscal resources declined. Concomitantly, low density suburbs expanded, consuming vast amounts of lands and natural resources.

2. Striking the urban/rural balance

In the past, people maintained an urban-rural balance in the midst of constant social and technological evolution. The values of simplicity, homogeneity, and intimacy with the land undergirded rural life. Rural residents had a strong sense of belonging. The social organization in rural societies tended to be tightly knit, held together by strong bonds of loyalty and common sympathy. Community and place were as important and well-defined as kinship ties. In 17th century New Jersey, scattered villages predominated. The Burlington County village of Crosswicks, for example, marks its beginnings in 1678.

In contrast, urban life was characterized by its heterogeneity, density, and complexity. Urban areas were the centers of politics, economics, and culture. While there were, and still are, striking differences between city and country, city residents felt a strong sense of belonging to a community just as their rural counterparts did. In many cases, city neighborhoods were as tightly knit as their rural counterparts.

While historically there has existed a necessary symbiosis between town and country, the balance has been disrupted by haphazard, sprawling forms of exurban development. As opposed to the escape from the early ills of city life into close-in suburbs that formed an integral part of a cohesive metropolitan area, post-World War II sprawl [see definition of sprawl in appendix] has taken on new form. It has leapt past the metro area, the neighboring farms and fields and into open land. The negative effects of these forms have no precedent in history. The importance of re-establishing an urban - rural balance seems very clear. New Jersey offers several examples to guide this redirection.

C. "NEW TOWNS" IN NEW JERSEY 1.

America's first planned industrial city

Alexander Hamilton understood the importance of cities. As Secretary of the Treasury, he argued to Congress that America's freedom depended upon its industrial strength, which he foresaw as being in the cities. He forged a partnership between the public and private sectors to create America's first planned industrial city. The partnership was dubbed the "Society for the Establishment of Useful Manufactures." It led to the incorporation of the City of Paterson on July 4, 1792, marking the first major contribution of New Jersey to urban planning in America.

The abundance of inexpensive energy provided by the Passaic Falls fueled Paterson's success. Imitators followed. Those that were private endeavors have been called company towns, yet another contribution to urban planning innovation stemming from New Jersey.

2. Company towns

A company town differed from a planned city such as Paterson. Its development was controlled by a single employer. It had a single purpose; to support an industry. An example is the Delaware River town of Roebling. Built by the Roebling family empire in 1905, its mills were a center for the manufacture of wire rope.

The town grew as the mills did. Eventually, when the mills assumed lesser importance, diversification of the economy nearby enabled the town to prosper. Due to its location near a variety of jobs and good physical form/ it remains a pleasant place today, with tree-lined divided streets, ample open space, a strong sense of community and a functioning main street.

Another example is Yorkship Village, now known as Fairview. It was built in Haddon Township (and was ceded to Camden City after construction began) as a company town, as part of the mobilization effort during World War I. It was designed as a residential village to house shipping workers. It exists today, containing a village square surrounded by the central business area, planned recreation spaces, walkways connecting all parts of the village, a five minute walking radius from the center, and a wide range of housing types.

3. Garden Communities

A 19th century plan which strengthened the rural-urban balance was Llewellyn Park in West Orange. This planned community, replete with Victorian cottages and villas, was located on 350 acres of parkland and attracted an affluent clientele in the 1850' s. Contemporary accounts described Llewellyn Park as the "realization of the poet' s dreams." Three miles of walkways and greater lengths of roadways followed the course of brooks and narrow ravines. The concept influenced a generation of landscape architects in the latter half of the nineteenth century including Frederick Law Olmstead and Calvert Vaux, the designers of New York City's Central Park and Trenton's Cadwalder Park. Thomas Edison's home community remains a remarkable experiment in community planning.

In the latter part of the nineteenth century and the early part of the twentieth, as suburban migration intensified in America (and in Britain), the English social reformer and planner Ebenezer Howard contributed to the melding of the town (urban) and country (rural) planning concepts with his new town movement. Howard proposed "garden-cities" with populations of approximately 30,000 residents that would encompass the cultural advantages of the cities along with rural pleasures of the countryside.

"A Garden City is a town designed for healthy living and industry; of a size that makes possible of full measure of social life, but not larger; surrounded by a rural belt; the whole of the land being in public ownership or held in trust for the community." (Howard, p.26)

The values inherent in Howard's new town movement, the emphasis on neighborhoods as social unit fostering local initiative and democratic participation, the preservation of open space in close proximity to residents, the human scale and accessibility of the community (ability to walk to school, work, shops, and recreation, for example), the use of comprehensive planning and community design techniques, continue to influence urban planners worldwide.

4. Radburn

American planners continued to use New Jersey as a laboratory to explore the "garden cities" approach to maintaining an urban/rural balance. Radburn, built in Fair Lawn, was opened in 1929. Designed by Clarence Stein, its neighborhoods were thirty to fifty acres in size. Interior parks enabled children to play free from the danger of traffic. Twin housing fronted on parks, not streets. Walkways to schools were separated from vehicular traffic. Shopping was accessible to pedestrians. This physical arrangement encouraged community involvement.

Despite Radburn's international renown, "garden cities" did not become the predominant American suburban form. Development forms such as "Broadacre" posed by Frank Lloyd Wright in the 1930's would prove more popular. "Broadacre", consistent with the American suburban ideal, focused on the single-family home situated on a one acre lot away from the perceived chaos of the city.

5. Suburban migration

By the late 19th century, the core of the urban areas became centers for industrial and commercial activity. Nearby tenements housed the lower-income segments of the population. This intensive urbanization stimulated an attraction to the rural ideal. Peripheral towns and suburbs grew away from the cities' cores.

These outer residential communities were facilitated, in part, by the development of electrified commuter railway systems (trolleys). This led to the emergence of the "streetcar suburb" and ultimately the decline of entire neighborhoods in the older urban areas. New suburbs such as Irvington, Orange, and Bloomfield in the Newark area, and Highland Park, near New Brunswick, all located at the end of trolley lines that enabled workers to commute to their jobs in the inner cities.

6. Post World War II development

After World War II, the rural ideal affected the suburban ideal. Large single family housing clusters evolved around small rural communities. The leading New Jersey example was Levittown (now named Willingboro), once a farm community in Burlington County. William Levitt sought to incorporate a mix of housing types targeted to America's expanding middle class, which had begun its exodus from the cities. Its designers met criticisms of uniformity of the residences with a neighborhood plan which included open space, schools, and a curvilinear road pattern.

Levittown was designed as a dormitory suburb, tied to larger economic centers such as Camden, Trenton, and Philadelphia. Convenience, accessibility and affordability were town hallmarks. The benefits of a single family life style and the security of its rural community setting were its predominant values. Levittown represented yet another milestone in the balancing act between town and country.

D. COMMUNITIES AND CHANGE

The changing mode of transportation, from public transportation systems such as commuter rail services, streetcars and buses to private automobiles, was a key force that shaped the American residential landscape. In the post World War II economic boom, the automobile, as well as the new residences in suburbia, became affordable to middle-class Americans. In New Jersey car registrations soared from 1.2 to 2.1 million during the same period. (Office of State Planning Technical Reference Document, Infrastructure Needs Assessment, Volume II; Transportation, 1988)

Infrastructure systems were built to support this more mobile and affluent population. New subdivisions were no longer located in areas adjacent to the central urban cores. The expanded infrastructure systems allowed the growing population to live, work and shop further out in the rural areas. Commutes to jobs throughout a dispersed and expanding megalopolis became more common. This trend suited the increased number of new families with young children who could afford and sought the rural ideal.

Without intervention, the trends begun nearly two generations ago are likely to continue. Broadly speaking, the suburbs have been urbanized and the countryside has been suburbanized. As suburban and exurban areas have grown, they have drained the cities of jobs and people, causing massive disinvestment. They will, if trends continue, cause a similar disinvestment in the older suburbs. Suburban and exurban growth has also begun to deplete the countryside of its amenities and resources.

What are these trends? How do they shape our lives and the use of the land? Changes in modes of transportation are far from the only forces changing the way we live.

E. REGIONAL TRENDS

1. Demographics

According to current projections, New Jersey is expected to grow by 1.4 million more residents between 1985 and 2010. (New Jersey Department of labor). In addition to this 18% increase in population, a number of other anticipated demographic trends will produce effects that will require thoughtful planning for the future.

The percentage of women participating in the labor force increased from 36% to 55% of the general female population between 1960 and 1985. This participation is likely to increase by the year 2010. One result of this phenomenon, the two-worker family, increases auto commutation, further clogging NEW Jersey roads. (George Sternlieb, James Hughes, and Connie Hughes, Demographic Trends and Economic Reality, Center for Urban Policy Research: 1986)

Increases in female workforce participation during their childbearing years also affects demands for social services such as day care. These increases, along with expected growth in single-parent households and the elderly population are trends that will require greater convenience and accessibility to a range of social services.

If household size continues to diminish as projected, there will be an increased demand for more housing units. In 1960, New Jersey households averaged 3.27 persons (United States Census 1960). By the year 2000, the average household size is expected to be only 2.39 people (New Jersey Department of Labor, Population Projections for NJ and Counties; 1990-2020).

2. Economy

In the past 40 years. New Jersey's economy has been transformed from a manufacturing-base to service and information. The share of New Jersey's workers employed in manufacturing dropped from 43.9% in 1950 to 22.8% in 1983, while the share employed in service sector industries grew from 9.7% in 1950 to 21.8% in 1983. (New Jersey Department of Labor) This fundamental shift points to some of the difficulties faced by New Jersey's older urban centers, which were heavily dependent on industry. Since the service sector is less dependent than manufacturing upon the centrality of cities for shipping and receiving, the choice of location is more flexible.

The past two decades has witnessed a shift in employment away from urban areas and to the suburban areas. (Sternlieb, James Hughes, "The State's Demographics and Economic Dynamics", in New Jersey Issues, Council on New Jersey Affairs, Princeton University Press: 1988, p.329) As examples, the State's largest urban centers - Camden, Elizabeth, Paterson, Trenton, Newark, and Jersey City lost 23.4% of their employment base between 1972 and 1984. Simultaneously, employment in the State grew by 25.4% By 1984, it was estimated that 80% of the state's population resided in the suburbs and 84% of the employment was there. (Alex Schwartz and George Sternlieb, New Jersey Growth Corridors, 1986, New Brunswick: Center for Urban Policy Research, p. 1)

New Jersey growth corridors are economic entities. Studies of these corridors, by a variety of State and regional planning agencies such as DVRPC, MSM, PA3H, and NJDOT have revealed that corridor regions have been the locus of an economic expansion that has been generated from within New Jersey itself. In most instances, growth has come from elsewhere in the county itself, or an adjacent county, to the corridor.

Other findings have documented a severe mismatch of housing and job locations (Nelson, John "Housing Affordability in the N5T/NJ Region and the - Nation" 1986) Corridor regions are increasingly more attractive areas for new service sector jobs. Jobs without housing causes in-commuting which jams the corridors and their feeder roads. Public transit is not economically sustainable to relieve this congestion because of low corridor densities and the dispersed trip origins and destinations.

This major geographic shift in both population and jobs has led to a growing concern about the mismatch between jobs and housing, both in location and affordability. Unemployment remains higher in urban areas, while suburban areas face labor shortages. Affordable housing is in short supply throughout. Even if an affordable home is found, it may indeed be located a long distance from work.

3. transportation patterns

The geographic distance between jobs and housing has markedly increased -traffic congestion. New Jersey's roads are the most heavily travelled in the nation and population and employment growth have outstripped road capacity (on many major roads) in recent years.

These traffic problems, however, are not easily solved. They emanate from land-use patterns that have evolved since World War II. Sprawling development makes the provision of public transportation services less feasible than it is under the compact development form in traditional cities or towns. As businesses have dispersed along major transportation corridors, and the suburbs have extended into formerly rural areas, commuters have turned increasingly from public transit to private automobile use. (U.S. Bureau of the Census, Census of Population, 1960, 1979, 1980).

4. Agriculture and Natural Resources

Between 1950 and 1989, the number of farms in New Jersey decreased from 26,900 to 8,300. Farm land acreage decreased as follows:

	1950	1960	1970	1980	1989 1/2	
Acres	1,770,000	1,460,000	1,060,000	1,020,000	880,000	<u>(New Jersey Agriculture 1989 - Annual Report - Agricultural Statistics,</u>

The entire state of New Jersey is classified by the U. S. Environmental Protection Agency as a "non-attainment" for ozone standards. A major source of ozone is hydrocarbon emissions from motor vehicles. It also exceeds emission standards for other pollutants in urban areas. (Rogers, Golden and Halpern, Environmental Planning Elements; New Jersey Office of State Planning Technical Reference Document 88-22, 1987)

The stress on water quality and supplies resulting from development is becoming more evident. Aquifer mining in South Jersey threatens the Pinelands National Reserve and has caused salt water intrusion in Cape May County. Septic tank failures and excessive density of septic tanks above the absorbing capacity of adjacent waters has polluted countless streams, lakes and aquifers. Non-point source pollution such as runoff and agricultural practices is now the major source of water quality degradation.

III. OHE REGIONAL DESIGN SYSTEM

A. WHAT IS REGIONAL DESIGN

Regional design is the intentional act of shaping the physical form (design) of human settlement patterns in large geographic areas (regions). The Regional Design System is a growth management process that accommodates growth by establishing criteria to determine the most beneficial location, function, scale, and inter-relationship of communities within a region. Its intent, within the framework of the State Development and Redevelopment Plan, is to organize growth into "communities of place," and to link these communities into regional networks.

The Regional Design System is an antidote to the post World War II sprawl pattern of development. The cumulative impacts of sprawl have profound and pervasive effects on our communities and on our lives. These far reaching impacts can be better managed using the Regional Design System. Regional cooperation in guiding the ongoing development and redevelopment of communities of place is the thrust of the Regional Design System. Using it allows a host of benefits to accrue:

- * more sensitive consideration of existing resources and historic settlement patterns;
- * more equitable distribution of the benefits and costs of growth, both geographically and demographically;
- * more effective public and private investment in the growth leading infrastructure systems of transportation, water supply, and sewage disposal;
- * more full service communities in which people can live, work, and play and feel a strong sense of belonging;
- * better environmental, open space, and farmland protection;
- * greater opportunity for more acceptable settlement and housing choices;
- * better geographic balance of jobs and houses, with an attendant decrease in traffic congestion;
- * greater ability to identify and enhance the "character" of a community and a region; and

lower taxes will accrue as a result of all of these benefits, and the more efficient provision of public facilities and services and a decrease in public spending for social service and environmental and natural resource protection. Also, the proximity of services within the community (i.e., mixed-use) will result in greater savings of personal time and expenditures.

B. WHAT IS A REGION

The term region may be defined in many ways. From a land planning perspective, it is a contiguous territory that its inhabitants relate to through their activities. It is an area where one lives and carries out most daily activities.

There are many types of regions in New Jersey. The differences in type depend on the activities that occur within them. For example, there are housing regions, labor-market regions, commuting regions, watershed regions, air quality regions, natural regions (ecosystems), geologic regions, and retail market regions among others. The geographic extent of the activity or physical characteristic(s) defines the area of the region.

Defining regions suitably for planning purposes must consider the object of planning. In the case of the New Jersey State Plan Communities of Place, communities are the object of planning. Communities are local, not regional, in nature. However, all communities exist within a region. The form and character of a community are influenced by its region. Therefore, it is important to look at the region as well as the community while planning and designing.

Because of New Jersey's unique development patterns and dense settlement, there are no single-region areas. New Jersey is a place of overlapping functional regions. Regions should be thought of as "extra-municipal," "extra-county," or "extra-jurisdictional." The perspective is one which considers factors outside of the immediate area as well as the unique characteristics of the overall location.

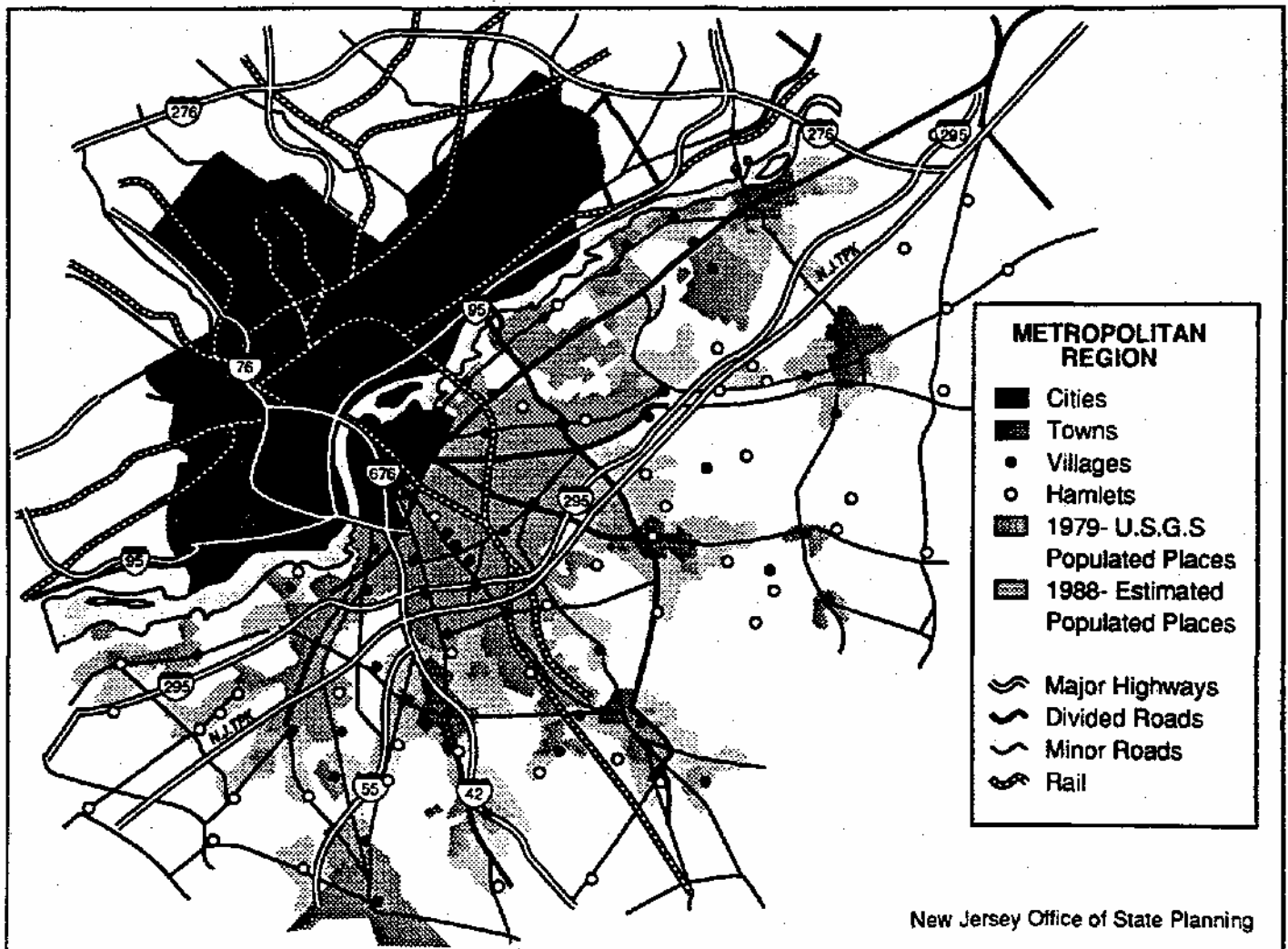
C. THREE TYPES OF REGIONS

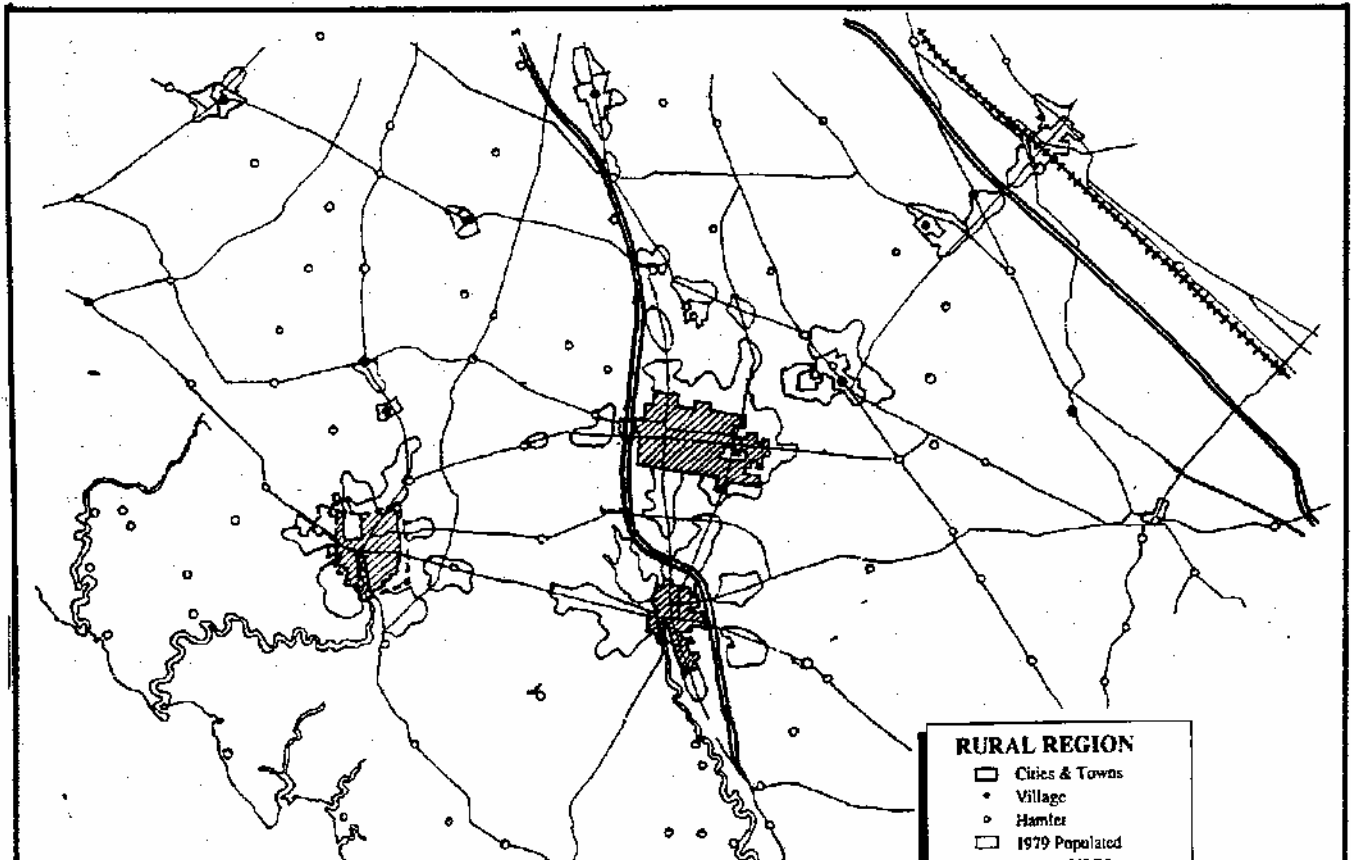
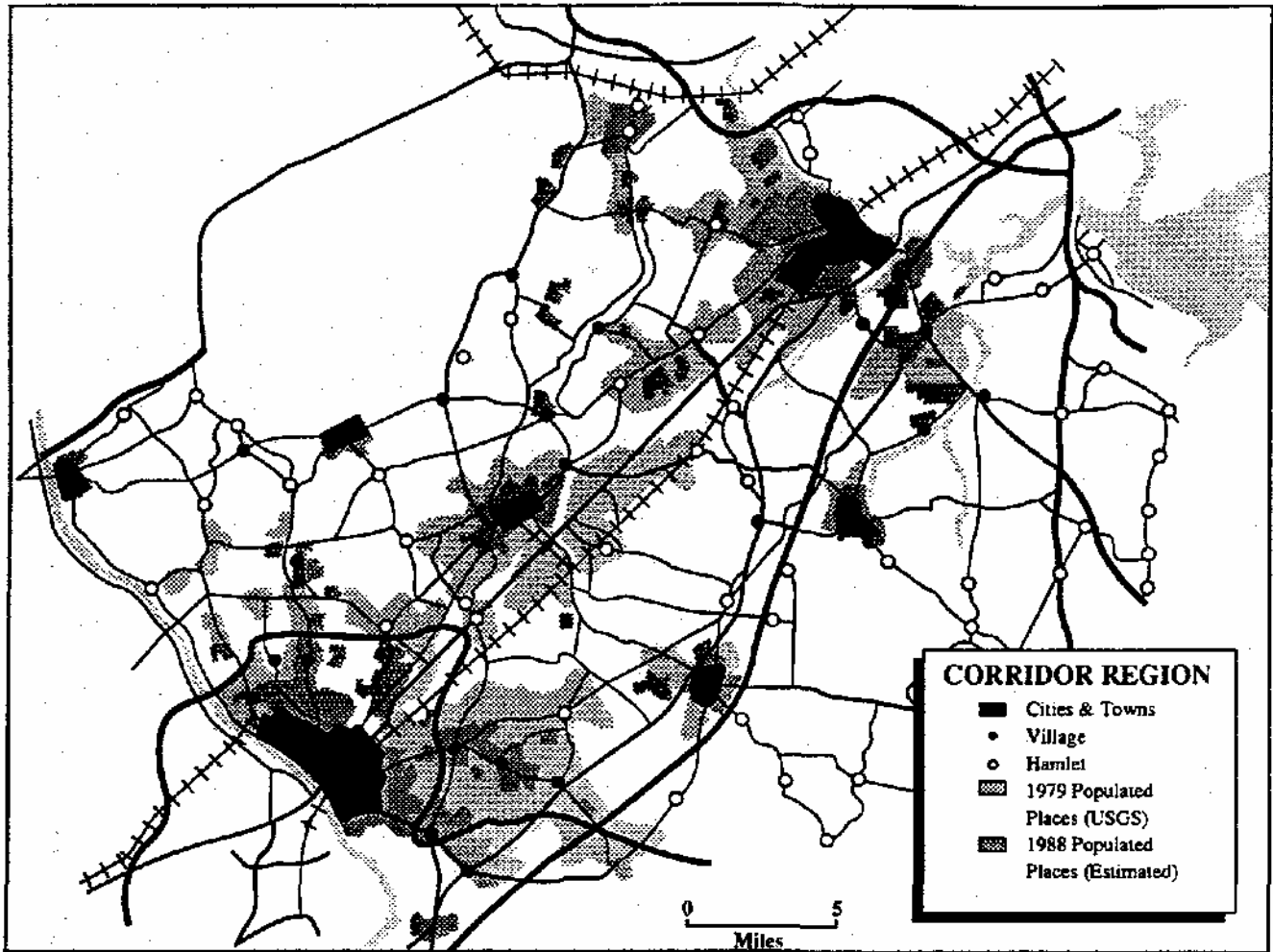
The distribution of people in a region, represented by their homes and workplaces, is characterized by the settlement pattern. In New Jersey, the three types of regional settlement patterns are metropolitan, suburban/corridor, and rural. Listed below are general descriptions of the three types as they exist in New Jersey today.

1. Metropolitan regions

Metropolitan areas are densely populated. Their buildings, roads and spaces are bound together in a tightly woven "urban fabric". They exhibit a greater diversity than corridor and rural regions. Metro areas possess a greater variety of jobs, housing options, educational and cultural opportunities, and a broader mix of people. Their economies are strongly linked to national and international economies. The focal point of a metropolitan area, in terms of concentration of activities, is usually a large central city. However, that link has presently been weakening. In some cases there may be more than one downtown within the metro area.

Another important characteristic of metropolitan regions is the relationship of their suburbs to their central cities. Historically, close-in suburbs served as the bedrooms to their urban workplaces. More recently, suburbs have been oriented outward, toward other suburbs, or exurban and rural areas. Their links to the central city have weakened, thus weakening the city and the entire metro area. While metro areas exert a distant reach, far beyond the contiguous built-up area; for regional design purposes, a metropolitan region consists of the densely settled, contiguous areas.





2. Corridor regions

Corridor regions are areas surrounding linear transportation routes. Key communities are oriented along and bound together by the major transit corridor. Linear corridor regions typically extend from metropolitan to rural areas, or another urban center, crossing suburbs along the way. Its lands in their regions reflect the wide range of settlement patterns of the areas they cross. The focal point of this type of region is not a point at all. Rather, it is the transportation corridor that is the focal axis, or spine, of the region.

Corridor regions can vary in scale and form from the Boston -Washington Megalopolis to a state highway linking two medium sized cities. A well known New Jersey corridor - Princeton/Route One - has evolved during its history, along the range of corridor types. Early on, discrete central place communities - Trenton, Princeton, New Brunswick - were situated along the corridor and surrounded by open rural lands. More recently, the land between these communities has been developed. This development has been variously described as scattered, commercial strip, and sprawl.

This meaning of sprawl refers to development that has not been built as infill development within an existing community, or as an extension of a community on its outer edge. Instead, it means development that has leaped past the existing community into the hinterlands, where little or no public services existed. These lands, formerly farms, fields, or forests; now have isolated subdivisions, office parks, or shopping malls scattered about. (See appendix for definition of "sprawl.")

Land in a corridor region forms a haphazard set of development patterns with disparate uses. Development is not inter-connected to form a rich mosaic, as in a metropolitan region. Corridor regions have grown in rapid spurts, disregarding nearby central places. Much of the recent development in corridor regions has been poorly connected to its environs. These haphazard patterns result in offices which abut farmlands, and housing that is not near employment, commerce and services. This new settlement -pattern in New Jersey's corridors has precluded the formation of communities as they were formerly understood.

3. Rural regions

Rural regions typically consist of a system of towns, villages and hamlets surrounded by open lands. The forests, farms, marshes, and other open lands which make up the environs surrounding rural settled places have few transport, utility, or communications lines crossing them. Settlement is concentrated in rural communities.

An exemplary rural New Jersey region is in the southwestern corner of the State, encompassing parts of Gloucester, Salem and Cumberland counties. The activity that defines this region is agriculture. It possesses large, contiguous tracts of farmland. It is peppered with rural communities. It is loosely crossed by two lane country roads. largely intact, it has not suffered incursions by sprawl or a proliferation of linkages.

D. A REGION IS A NETWORK OF COMPONENTS

Whether metropolitan, corridor, or rural; a region is a network of central place communities which are connected by transport and communication linkages and surrounded by less intensely settled land. The three key physical components of regions are: 1) central places, 2) linkages, and 3) the lands surrounding the central places (environs). Central places are communities of place that centrally serve an outlying region. Linkages which connect communities may be transport links, communications channels, and utilities and infrastructure linkages. Environs are the lands outside of central places. The intentional arrangement of these three physical components forms the foundation for regional design.

E. COMMUNITIES OF PLACE

Communities of place are the focal points for settlement in the Regional Design System. The challenge facing them is to assure that community character and identity are managed as growth occurs. Overall, this strategy provides for a variety in the size and location of central places in order, to -achieve diversity and affordability in housing, public services, jobs and quality environments. As an element of the Regional Design System, the hierarchy of central places forms a continuum from large urban centers to small rural hamlets. Specifically, the hierarchy of five central places consists of urban centers, corridor centers, towns, villages, and hamlets.

There should be opportunities for most persons living in a central place to be able to perform most of their activities, including work, in their home community, or another central place in the region. Those that live in the more sparsely settled environs will go to their central place, or several central places, to satisfy their needs and desires.

The size of a central place depends on the size of the region it serves. Small communities of place, such as neighborhoods, hamlets, and villages, serve a small area. Towns and corridor centers serve larger areas. Urban Centers service a metropolitan region, along with parts of outlying corridor and rural regions.

Regions and Their Central Places		
<u>METROPOLITAN</u> <u>REGION</u>	<u>CORRIDOR</u> <u>REGION</u>	<u>RURAL</u> <u>REGION</u>
urban centers, towns, boroughs	corridor centers, towns, boroughs, villages	towns, villages, hamlets

From a planning and design point of view, ideally the potential for the most important physical features of communities of place are:

- * compact development rather than low density or dispersed development;
- * an inter-related mixture of uses rather than single uses;

- * a discernible core or central area that serves as a focus for activities;
- * well-defined boundaries, with the edges of communities preferably defined by open space;
- * a network of roads, greenways, and waterways that both connects the community internally and externally and provides order to the placement of buildings and open spaces;
- * a housing mix for all income groups rather than single housing type developments that are targeted for one income group; and
- * a well-designed public environment where pedestrians may co-exist amicably with cars,

These features allow a host of benefits to accrue: a sense of identity and belonging to a place; a rich perceptual experience; better access to jobs and services; more efficient provision of infrastructure; a heterogeneous community; increased social interaction; and increased community involvement by its citizens and businesspeople.

1. The Hierarchy of Communities of Place

The hierarchy of central place communities forms a continuum from the largest settlements, urban centers, to the smallest, hamlets. They are described in the following pages. To help describe them, there are a number of characteristics which illustrate each type of community. The sole purpose of providing these planning and design characteristics is to assist in creating an image of what these central places could be in the future. There may be considerable variety within each type of central place. The overlap of characteristics among central places reflects the existence of communities that function as one type of community in the hierarchy of five types, while having the characteristics of another.

These characteristics are:

Population: total full time residential population

Employment: total full time in-place employment

Dwelling units: net density in dwelling units per acre

Jobs/Housing ratio: total employment divided by total dwelling units

F.A.R.: net floor area ratio - total usable building floor area divided by total parcel size

Open space ratio: total non-developed lands (excluding streets) divided by total area

Public recreation open space ratio: usable public open and recreational space divided by total area

Modal split: a ratio which describes the allocation of trips to all available modes of transportation. The ratio in this table compares private automobile usage to all other usage (autorall other).

a) Urban Centers

Generally, urban centers are historic centers of industry, occurance, residence and culture. These municipalities were built at high densities with a reliance on public transportation services. They contain a significant number of jobs and households as well as a massive investment in public facilities and access to multiple transportation systems. These are places where new growth, particularly employment, is most desirable.

Examples: Camden, Trenton, Newark

Characteristics;

Population: more than 40,000
Jobs: more than 40,000

Dwelling units: more than 16,000
Jobs:Hbusing: more than 2.5:1

Net dwelling units
per acre: more than 15
Net F.A.R. more than 4.0

Open space ratio: less than .25

Modal split: less than 75:25

Functions;

Large scale activities occur in urban centers. They are repositories of major industrial concerns, corporate headquarters, medical centers, universities, government complexes, convention centers, museums and other large institutions and facilities. These major activities occur in urban centers because of their central location within a large service region and their accessibility as a hub to a full service transportation network.

b) Corridor Centers

Corridor centers are new places for growth that occurs outside of existing towns in the major transportation corridors. They are not just planned unit developments or new regional shopping or office centers. They are conceived of as large, multi-purpose settlements designed to absorb the growth that would otherwise spill out into the countryside. They are attractive, accessible places to work which accommodate a significant number of employees and offer a conveniently located, diverse range of housing, shopping, services and recreation. Ifousing in these centers is meant to appeal to markets that place a premium on convenience and access to metropolitan centers. Corridor

Centers are compact with defined boundaries, built at a human scale with usable and interconnected public spaces.

Examples; none

Characteristics;

Population: between 5,000 and 40,000

Jobs: between 4,000 and 30,000

Dwelling units: between 2,000 and 15,000

Jobs/Housing: between 2:1 and 5:1

Net d.u. per acre: between 4 and 24

Net F.A.R.: between 1.0 and 5.0

Open space ratio: between .20 and .35

Modal split: between 85:15 and 60:40

Acreage: between 640 and 6,400

Functions:

Corridor Centers would contain a mixture of uses at a lesser scale than those of an urban center. Examples include: day care, post office, schools, library, and other municipal services, hospital or medical clinic, hotels, a variety of retail and department stores as well as restaurants, supermarkets, professional offices, and banks. They are linked to their corridor region and urban centers by public transportation services.

c) Towns

These are the primary centers for new growth that occurs in suburban, rural, and coastal areas. They have a compact form; a distinct building design vocabulary; and a green, square, or common that is given shape by buildings. Town cores contain retail, service and office uses as well as community and service facilities. It also contains an intermodal transportation stop or center. Towns are residential communities with all of the commercial and civic functions commonly needed on a daily basis; including supermarkets, grade schools, and a post office. Traditional towns and boroughs are models for this community type. They also service people living in outlying areas.

A town is composed of several neighborhoods which are within a 1/4 mile walking distance from the core. Each neighborhood should have a range of housing types and densities dispersed throughout, promoting a diverse population. Some apartments and offices may be located above smaller shops in the center of town.

They contain a variety of parks and gardens. Its streets, alleys, greenways and waterways should form a composite network. The town should be identifiable in the landscape, surrounded by working and natural open spaces. Sewage disposal is provided by regional treatment.

Examples; Newton, Freehold, Hammonton

Characteristics:

Population:	between 1,000 and 30,000
Jobs:	between 400 and 10,000
Dwelling units:	between 400 and 10,000
Jobs/Housing:	between 1:1 and 4:1
Net dwelling units per acre:	between 2 and 18
Net F.A.R.:	between .2 and 2.5
Open space ratio:	between .40 and .75
Modal split:	between 95:5 and 75:25
Acreage:	between 200 and 6,400

Function:

A mixture of some or all of the following uses would be appropriate for towns: day care, post office, lower schools and perhaps middle and upper schools, fire, police and other municipal services; as well as corner and convenience stores, luncheonettes, other restaurants, retail stores, supermarkets, banks, and professional offices. -They include a town square and other public and private community meeting places and

d) Villages

Villages are settlements which accommodate smaller scale rural and exurban growth. They are intimate residential communities which offer the most basic employment, services, and shopping for their inhabitants as well as for those living in nearby rural and exurban areas. Villages are less dense than towns, with less employment and fewer services. They are characterized by compact form; basic services within the village core; a distinct building design vocabulary; and a community focus (village green or commons, perhaps) that is defined by buildings. Larger villages may be served by inter-community transit. Some community and social facilities are present.

The periphery of the village is no more than a 1/4 mile walk from the end of the commercial spine, village center, or main street. The highest density housing is located in the center, with lower density on the outskirts. Housing and offices may be located above shops. Villages are likely locations for cooperative housing. A village is identifiable in the landscape by open spaces which surround it.

Examples: Oldwick (Hunterdon), Chatsworth (Burlington), Greenwich (Cumberland)

Characteristics:

Population: between 200 and 1,250

Jobs: between 25 and 500

Dwelling units: between 75 and 500

Jobs:Housing ratio: between .25:1 and 2:1

Net dwelling units

per acre: between 1.5 and 6

Open space ratio: between .60 and .80

Modal split: between 100:0 and 90:10

Acreage: between 50 and 300

Function:

Villages facilities include day care, a post office, corner stores, cafes, a restaurant, a bank, and perhaps some professional offices. Their centers are bound together by village green or common, and have a defined nucleus and identifiable edges.

d) Hamlets

Hamlets are places for the smallest scale rural growth to occur. Siese communities are even smaller than villages, perhaps just a settlement at a crossroads. Hamlets have a distinctive identity, and often possess a defined public space. A hamlet has a compact nucleus with an intentional meeting place such as a green, tavern, day care, or luncheonette; which distinguishes it from the standard residence-only suburban subdivision in form, use, and character.

Hamlets have a distinctive building design vocabulary- All streets should form a composite network. They are identifiable in the landscape as a settlement and are surrounded by open lands.

Examples; Iranquility (Sussex), Clover Hill (Somerset)

Characteristics;

Population: between 25 and 250

Jobs: between 0 and 25

IXfelling units: between 10 and 100

Jobs:Housing ratio: between 0:1 and .25:1

Net dwelling units

per acre: between 1 and 4

Open space ratio: between .65 and .90

Modal split: between 100:0 and 95:5

Acreage: between 10 and 100

Functions:

While hamlets are primarily residential communities, possible facilities and services in hamlets are day care, a post office, a corner store, cafe, or a restaurant.

Communities of Place Planning and
Design Characteristics

The sole purpose of providing examples of planning and design characteristics is to assist in creating an image of what these central places could be in the future. There may be considerable variety within each type of central place in the Regional Design System. When combined with associated narrative and graphic sketches and enriched by the dialogue of cross-acceptance,, these characteristics can help paint a more complete picture that represents these existing and future communities.

	<u>HAMLET</u>	<u>VILLAGE</u>	<u>TOWN</u>	<u>CORRIDOR C.</u>	<u>URBAN C.</u>
POPULATION:	25 - 250	200-1,250	1,000-30,000	5,000-40,000	>40,000
JOBS:	0-25	25-500	400-10,000	4,000-30,000	>40,000
DWELLING					
UNITS:	10 - 100	75-500	400-10,000	2,000-15,000	>16,000
JOBS/ HOUSING:	0:1-.25:1	.25:1-2:1	1:1-4:1	2:1-5:1	> 2.5:1
NET DU'S/ ACRE:	1 - 4	1.5 - 6	2 - 18	4 - 24	>15 *
NET F.A.R.:	N/A	N/A	.2 - 2.5	1.0 - 5.0	>4.0 *
OPEN SPACE RATIO:	.65 - .90	.60 - .80	.40 - .75	.20 - .35	<.25
MODAL					
SPLIT:	100:0-95:5	100:0-90:10	95:5-75:25	85:15-60:40	<75:25
ACREAGE:	10 - 100	50 - 300	200 - 6,400	640 - 6,400	

* in central business district

The overlap of characteristics among central places reflects the existence of communities that function as one type of community in the hierarchy of five types, while having characteristics of another.

F. LINKAGES 2.

Types of linkages

Linkages connect the communities of a region together into a network. They are pathways for people, goods, services, information, and energy to circulate about a region. This circulatory system may consist of transport links - roads, rails, bikeways, bridges and tunnels, rivers and air routes. Or communications conduits - phones, computers, radio, television, facsimile, and emerging combinations. They may be functional or utility links - water supply, sewers, power, solid waste. Links can also be environmental - greenways, waterways, wildlife corridors, scenic corridors, beaches. These categories and lists are far from exhaustive. There are also economic, cultural and historic linkages - markets, houses of worship, school systems, professional associations, family ties, and the like.

Linkages within a community serves a purpose similar to links among communities. While at a different scale, they bind the various functions of the community together. They are conduits to or for activities by which the residents come together.

3. Linkage density and capacity

Different region types have different "densities" of linkages. Linkages in metropolitan regions are the most dense. The linkage "fabric" of streets and public transport, communication lines and utilities is woven tightly. Rural region linkages are the least dense. They resemble a loose web with more space between strands. The density of corridor region linkages falls somewhere in between that of rural and metropolitan links, and tend to be linear.

Keeping these arteries unclogged is vital to the health of the whole region. Providing for adequate capacity and managing its flow is one key to regional growth management. A carrying capacity approach to establish linkage capacity, similar to that used for development, is an effective tool to manage regional growth. Acceptable levels of service need to be established and maintained on conduits between central places. These levels are set by regional organizations or by cooperating local and county agencies. This approach is integral to the regional growth management system.

4. Combining linkages

In regional design, when connecting communities of place, consideration should be given to combining rights-of-way into shared, multiple-use rights-of-way. Functional linkages, especially utilities, should be co-located along existing transport or utility rights-of-way. The sharing of linkage rights-of-way saves acquisition and upkeep costs, keeps open lands intact, minimizes aesthetic disruption, and decreases the environmental consequences of their development. This approach builds on the "common carrier" notion used in telecommunications. Where possible, the links should be underground.

5. Transportation and communication linkages

Transportation and communication linkages are the most important in regional design. One organizing principle for efficient transportation service is to concentrate trip ends. Locating development in central places serves to concentrate the origins and destinations of the work and service-related trips. A more efficient transport system results, in which hamlets and villages feed towns and corridor centers by car and van pools, and towns and corridor centers in turn feed metropolitan areas by buses and commuter rail.

By placing employment in the largest communities - urban centers, corridor centers, and towns; job commuting trip ends are concentrated and can be served more efficiently by public transportation. By establishing services - for example, shopping, schools, community centers - as an integral component of all communities would decrease traffic in terms of non-work related trips. Traffic congestion is thus eased by the attendant increase in mass transit use and decrease in service (non-work) trips.

Transportation access within communities is also important. Compact, multiple-use communities which inter-relate uses lowers car traffic in the center by encouraging walking and bicycling. This reduces the use of both private and public transportation.

6. Utilities and other linkages

Other linkage components on which the Regional Design System focuses are water supply and distribution, and sewage collection and disposal. The reason for this focus is that taken together; transportation, water, and wastewater disposal are "growth leading" infrastructure. Typically, all three need to exist in adequate capacity as a pre-condition for community-scale growth to happen. Therefore, growth leading infrastructure is an effective growth management lever. Managing this infrastructure through community service boundaries, impact fees, and adequate capital facilities requirements permits municipalities to get a grip on growth and its costs.

In order to foster sustainable communities, the scale of infrastructure should match the community(ies) they serve. For example, sewage disposal methods should vary according to settlement size. On-site systems are appropriate for the less dense existing hamlets and villages, and sparse development dispersed in the rural environs. Regional sewer systems are more appropriate for towns, corridor centers and metropolitan regions. Mid-range community sewage disposal systems are viable for compact hamlets and villages.

F. ENVIRONS

The lands between central places exert a profound and pervasive influence on the communities they contain. The geography, demography, and natural resources of a region affect the size, function, and location of the settlements that dot its landscape. In order to plan effectively for central places, it is necessary to plan equally effectively for the lands

that surrounds them. The interdependent relationship between a place and its environs must be considered during the planning process.

Environs differ from the central places by having less intense settlement than the central place itself. The less dense environ serves to define the "place" of the community and mark its borders. Activities ancillary to and supportive of the central places occur in the environs.

1. Metropolitan environs

Metropolitan regions are mosaics. They are made up of urban centers with their central business districts and neighborhoods; adjoining suburbs; park lands; and transport, river, and other corridors. Metropolitan regions are the extensions of their central cities. The reach of their urban centers extends to encompass the activities that feed the economy of their region. These urban centers are the hub for the linkages through which the region is interconnected.

Dense metropolitan regions have lands in between their urban centers that are less dense than the centers. These urban and suburban lands have become, in part, reservoirs of housing for those employees that work in the business districts of the central city. Suburban lands which are close to the cities also contain community facilities, services and commerce which serve its residents. Over the last three decades in New Jersey, this older suburban pattern has been altered. Office buildings and campuses have been locating further away from the central cities to take advantage of the less expensive land, lower tax rates, high quality of life, as well as closer proximity to the skilled workforce.

2. Corridor environs

Corridor regions are a relatively new phenomenon in the New Jersey landscape. The primary impetus for corridor growth has been the massive highway construction beginning after World War Two. These highways extended radii out from the central cities into the open country side. Thus coupled with direct access to economic centers via prime transportation links, these corridors became the loci of unprecedented growth. Corridor growth was so rapid and complete that it connected areas, formerly considered hinterlands, to the metropolitan region.

As a result of booming growth, services were unable to keep pace. Leapfrog development, not respecting prior community settlement form, ensued. Accordingly, corridor environs mostly are comprised of single use, poorly connected developments that are scattered loosely among open or partly developed lands.

3. Rural environs

Rural environs are those open farm and natural lands which have remained mostly intact in the face of sprawl. The predominant settlements are rural towns, villages, and hamlets which dot an otherwise open landscape. Economic activities in the past were tied to the land or its

natural resources. Quite recently, some housing and office/research campuses for urban and corridor-housed workers have been located here, scattered about in low-rise buildings.

In the past, the character of rural lands has been formed by natural features. The land and water were resilient enough to sustain sparse, primarily residential, development without damage to the environment. Those features whose capacities were not exceeded so that low levels of growth could be sustained are the indigenous water supply, soils, slopes and other geologic features, the rural road network, and the prevailing rural character.

IV. THINKING AND ACTING REGIONALLY

Many of the problems facing New Jersey's municipalities today have regional as well as local causes and effects. These problems include traffic congestion, air and water pollution, excessive infrastructure and public service costs, lack of affordable housing, loss of open lands, and urban decline. Their solutions necessarily involve regional or extra-jurisdictional as well as local actions. Solving them requires a two-fold approach: a regional point of view and cooperation to reach regional aims.

A. COLLABORATION AND CONTEXT

Wise decision makers know that consensus fares better than edict when there is limited or no authority to enforce. In New Jersey jurisdictional arrangements there is, with two notable exceptions, minimal authority for regional growth management. This necessitates cooperative behavior if problems are to be solved. Thus is born the imperative for collaboration.

Collaboration involves equality, mutual respect, and full representation to be effective. All levels of government, the private and non-profit sectors, and citizens and interest groups ought to deal as equal partners. Full representation also includes a wide array of professional assistance, beyond planners, landscape architects, engineers, and lawyers. Mistakes in the past have, in part, resulted from the out-of-proportion influence of a limited point of view, attributable to limited representation.

Context in regional design involves both regional and local vision by all concerned parties. Just as the county, regional, and state levels of government need to consider local factors in making their land use decisions; developers and municipalities must consider regional factors in theirs. Accordingly, land use decisions may be made on the basis of their benefit to the region. Any decision benefitting the region is likely to benefit a locality and an individual as well. Actions which benefit a region are not competing or mutually exclusive to actions which benefit a community- Instead, they are mutually reinforcing.

Thinking and acting regionally, then, is largely a matter of collaboration and contextual perspective. It is an attitude brought to bear on all land use decisions. It supplements and complements local and global perspectives. This type of thinking works best by asking questions that relate an issue to a regional context. These questions should strive to

reveal those principles which foster land-use decisions which form, perpetuate, and enhance communities which "fit" into and better the region.

B. REGIONAL INFLUENCES

While local considerations seem easier to assess and act upon because of their familiarity and our access to local decision makers, regional factors seem less tangible because they may be distant from our routine. What are these regional considerations? What are the ways by which all participants who shape communities can think and act to accommodate regional concerns?

Asking questions about context in collaboration with all affected parties is the way most likely to achieve satisfying results. What is the relation of the community (house, any other land use issue) to the surrounding region? And to neighboring regions and communities that exert some influence on it? This forces one to consider what the immediate and neighboring regions are, how they work, and how they affect local circumstances. These questions fall under the category of "relationships with larger systems

Related questions include:

What is the effect on/by climate?
" " " " " watersheds and their streams, lakes, and hydrogeology?
..... " ecosystems and natural habitats?
..... " neighboring communities?
" " " " " overlapping and neighboring regions? ¹¹ "
" " " agriculture and other natural resource based activities?
" " " " " housing affordability?
' " " social interactions in the region?
" ' " the (state, national, global) economy?
" ' " the culture of the region?
" " " " " (large, small, nearby, distant) economic generators?
" " " " " the capacity of infrastructure systems?
..... " the air quality?

C. LOCATING COMMUNITIES IN A REGION

Planned growth is more desirable and at least as profitable as unplanned growth. Why is this so? Planned and cared for communities preserve their natural and social heritage. Preservation represents a savings whose "investment" over time accrues to the residents' favor. Where are these communities located? How do they preserve their heritage? Their day-to-day care is a matter of stewardship. The decisions which determined their location, form, and function are acts of planning and design.

Where to site a community depends on function. Does the market indicate a large number of residents who work in service and information

related positions along a transit corridor? Then a corridor center may be appropriate. If it is a smaller number of people seeking access to jobs in the metropolitan area, then they may be dispersed in infill or redevelopment in the city or its suburbs. Does the market have enough rural home seekers to warrant a new rural community, or new houses in and around several existing rural towns and villages? The characteristics of the added population creating the demand determine the function of the community, and thus guide growth managers and community builders.

The size and function is a guide to the region that a community should be located in (see chart in Section III E, Regions and their central places). Once a community type and its region (metropolitan, corridor/suburban, rural) is chosen, where within the region should it be placed? A community suitability analysis provides placement choices. A multi-factor analysis procedure is provided in Design With Nature, a landmark book by Ian McHarg.

The process fully detailed in that book was a composite analysis of all natural conditions to identify the most suitable areas for settlement. The analysis is based on the constraints and opportunities of the land, air, water, and ecosystems. In addition, a consideration of infrastructure accompanies natural system analysis. To which extent can nature provide "infrastructure?" Can indigenous water sources be used without harm? Can the land harmlessly absorb stormwater runoff and sewage? Can recycling minimize garbage disposal? The intent is to place and design communities that are as self-sustaining as possible.

If natural systems or the size of the settlement dictate human-built infrastructure, systems should be designed to match likely future community size. Existing or programmed and funded infrastructure should be the first choice if natural systems cannot be used. New infrastructure, where less cost-effective than existing, should be the last priority.

A consensus among regional residents, businesses, and political leaders must form to validate that the character of the region and each of its communities has been maintained by the proposed placement of growth in existing or new communities. This local knowledge needs to be injected into the process at the start, and infused throughout, to steer the participants properly.

A community suitability analysis, only briefly sketched above, takes the form of a planning capacity analysis. A body of knowledge and professional expertise exists that enables these analyses to be done routinely. Extra-jurisdictional cooperation should result in decision-making "for the good of the region."

D. STEWARDSHIP

Stewardship, in this sense, is the daily caretaking of communities and regions. Stewardship of land and communities and their supporting systems entrusted to our care presents responsibilities that all actors on the land use stage must share. These responsibilities apply whether one puts up a fence or sites a new community.

A principle which guides stewardship is to optimize the benefits and minimize the harm of land use actions, both regionally and locally. Benefits are optimized and harm minimized when settlement and development activities are in harmony with their surrounds. When the new (redeveloped, etc.) "fits" appropriately with the existing, without damage or disruption, then harmony exists.

A regional approach to fitting development can be based on carrying capacity. A good steward will not load her or his "containers" beyond "fill." These "containers," from a settlement stance, come in three basic types. The first is natural carrying capacity. To what extent can the various natural systems (air, water, land, ecosystems) assimilate human settlement without harm to either nature or humans? Natural capacity is determined by scientific observation of local conditions.

The second is infrastructural carrying capacity. What are the abilities of the various infrastructure systems (transportation, water supply, wastewater treatment, education, libraries, public parklands, and other public facilities and services) to serve development at adequate levels of service and at reasonable public expense? These systems should not be designed or used in any way which causes harm to humans, the environment, or the public purse. Infrastructure capacity is determined by the application of planning and engineering design standards.

The last "container" is cultural capacity, this consists of cultural facilities and community and regional character. "Character" is a shorthand term for a complex and interacting set of factors that are represented by the overall socio-cultural conditions. These include the built form of human settlements, the form and nature of natural systems, principal economic forces, and the nature of social interactions. What are the limitations that these cultural, social, historic, economic, political, and other societal considerations impose?

To consider its character, a community, needs to decide how it sees itself, and how it wants to be in the future. Character is a local determination based on consensual preferences of community lifestyle. It should examine each factor that comprises character, and then translate all of them into the community's master plan, ordinances and decision-making.

V. IMEmiENTATION

A. TOE REGIONAL DESIG* IMPERATIVE

To create vibrant communities of place, to maintain and enhance existing communities in the face of growth, to retain the character of quality rural and suburban environs, to redevelop metropolitan environs, to keep adequate and affordable service on all the links connecting communities; that is, to oto regional design, will require extraordinary vision, will, and cooperation among all levels of the private and public sectors. This will be no easy task.

The intent of this section is to provide guideposts to lead those who want to do quality regional and community design and planning. Detailed explanations will need to be obtained from professional sources and other documents. Presented herein is a framework, highlighting the most significant actions and tools. Some of these are currently available. Others need to be made available, through the wise acts of lawmakers and . private sector leaders.

The implementation approach is two-fold: process and substance. two are, of course, related. They are described separately for ease of presentation. The procedural approach lists sequential actions to be taken by parties interested in communities of place. Completing this process should result, over time, in the creation of communities of place. The substantive section points out those technical methods that are needed to actually develop a community of place and its supporting linkages and environs. Not all of the tools are needed in each case. Circumstances and availability will determine which are appropriate. Nonetheless, all are listed in order to enhance the range of public policy choice and to provide flexibility and encourage creativity in meeting this challenging yet vital endeavor.

B. PROCESS

Once it is determined that a community of place is desired, then the following questions should be asked. All the questions point to two overarching questions. "Do the current patterns of settlement foster or inhibit the formation of a community of place?" "Do current institutions and practices enable or prevent settlement patterns that form communities of place?" The settlement patterns being referred to exist in the community, and in its environs and along linkages connecting it to and through its environs. It is also important to note that many public and private sector actions affect settlement patterns, going far beyond a traditional land use master plan and its zoning ordinance.

Typically, a municipality, or neighboring municipalities, working in conjunction with its county and key State agencies, will spearhead the effort. In this case, the planning board and the governing body are the point organizations. As a collaborative endeavor, they will reach out to the environmental commission, design and historic review boards /commissions, professional staff, interested citizens and groups, private and non-profit organizations such as community development corporations and neighborhood development organizations and associations, and the private development community. The questions that a planning board and governing body will ask are:

Preliminary Phase

- * Should growth occur in an existing community of place, at its edges, in a new community of place, or in some combination?
- * If growth should occur in or at the edges of an existing oammunity of place, which forms and types of developments are most appropriate?

If in a new community of place, which is appropriate? Hamlet, village, town, corridor center? Consider size, function.

Where is the most appropriate location for the new community of place? Think regionally, and consider neighboring communities and their inter-relationships.

Is it necessary or beneficial to meet with neighboring municipalities and counties?

Would a community of place (expanding an existing one or creating a new one) be compatible with the existing patterns of development in this location? Does existing zoning require large lots and single uses in districts? Consider also the environs surrounding the community and the linkages connecting it.

Does the pattern of land ownership present problems or opportunities to forming a community of place? Consider many small parcels for incremental growth versus large tract ownership for "one-shot" growth.

Will the arrangement of infrastructure or its absence support a community of place or sprawl?

Does the current infrastructure capacity accommodate projected/desired growth levels?

Does the arrangement of infrastructure or its absence support a community of place or sprawl?

Do the existing environmental conditions, such as soils, slopes, drainage, streams and lakes, wetlands, endangered species and their habitats, support the placement or intensity of development?

Are farmers and other large landowners in the environs interested in a joint venture with the municipality and developers to equitably distribute changes in land values? Consider transfer of development rights, local development corporations and cooperatives, and development agreements.

What are the desired and likely time frames for the planning and eventual settlement of the community of place? Consider the impacts of slow, steady growth that is phased over time versus large scale growth that occurs at one time.

What kinds of external assistance will be needed? Consider state, regional, and county agencies, non-profit organizations, local citizens and groups, and joint partnerships with the private sector.

- * What is the best way to keep the local citizenry informed and involved throughout the entire process? Consider advisory groups, joint fact finding and planning, community design charettes, community preference and other surveys, education campaigns, local service organizations.

Planning Phase

Once these preliminary questions are answered satisfactorily, formal planning commences. During the formal planning phase the planning board, in concert with the governing body, will take the following actions, at a minimum, to form a community of place.

- * Designate the community of place by determining its size, function, and location. The municipality should consult neighboring municipalities, the county, and regional agencies in this regard.
- * Amend and readapt the municipal master plan and all appropriate elements. . Consider adding new elements, such as community design.
- * Obtain the necessary commitments from various government agencies; including plan and permit approvals, memorandums of agreements, grants, loans, etcetera.
- * Ensure continuing and meaningful public education and involvement throughout the entire process.
- * Obtain necessary development ordinance amendments from the governing body. This may include, but is not limited to, zoning, subdivision, site plan, impact fee, linkage fee, transportation development district, transfer of development rights, historic, design review, adequate capital facilities, and other ordinances which pertain.

C. SUBSTANCE

What actions will actually build the community? When looking at structures and spaces, it is the types and forms of development, when aggregated, that make the community grow. Therefore, a look at which forms and types of development apply to the communities of place and their environs gives us insight into the planning and design methods that precede development.

1. *Types of Development*

Types of development are determined by the stage of development of the community and its environs. Factors such as the availability of vacant developable land, public transportation services, infrastructure, etcetera; are indicators of different stages of a community's evolution. Different types of development, such as redevelopment, infill, fringe (outfill), retrofit, new centers, and rural development are appropriate at different stages.

Redevelopment ... changes in existing use and development patterns in developed areas. Carefully selects which structures and spaces to refurbish and reuse or readapt for a new use, and which structures and spaces to replace. Appropriate in urban centers and towns, and metropolitan regions.

Redevelopment is most effectively accomplished by selectively mixing , infill, rehabilitation and reuse, rehabilitation and change in use, demolition with either reconstruction or retention as designed and usable open space, and land assemblage for larger scale projects.

An example is New Brunswick. Political, academic, and corporate leadership forged a successful partnership to bring about a renaissance. Officials from Johnson and Johnson, Rutgers University, and the City of New Brunswick formed "New Brunswick Tomorrow" to plan for this renaissance. Johnson and Johnson assembled land through the New Brunswick Development Corporation (DevCo) to construct its new world headquarters. DevCo and Johnson and Johnson built a Hyatt Hotel and conference center across the street using cooperative methods. These were strategically located next to a prime rail station along the northeast corridor, and with access to the junction of primary highways.

The redevelopment of the train station and construction of a mixed-use commercial and office center across the street closely followed. The mixed-use center, as well as new office buildings an arts center, and the new medical center nearby took advantage of a broad array of financing tools, created through partnership, in order to make construction feasible.

Simple, accessible, yet attractive structured parking was provided for all of these uses on-site. This minimized impacts on local roads. Brick to match the character of the immediate vicinity was used on most structures. •Che height, bulk, and build-to line of the new buildings enabled them to fit into their surrounds without disruption.

New Brunswick is a case of the application of a vast battery of redevelopment tools, not the sole reliance on one or a few. Here, leadership, partnership, resourcefulness, and planning and design combined to rejuvenate the heart of New Brunswick.

Infill Development ... development that fills in the vacant parcels that have been overlooked by development in the past. Infill development should occur before public services are extended into open areas for new development.

Appropriate in villages, towns, urban centers, and metropolitan and suburban/corridor regions.

Infill development respects its surroundings. Good examples are recent housing projects in Trenton. In the historic Mill Hill district, a vacant parcel at its edge was redeveloped with townhouses to match the scale, materials, and use of its neighboring townhouses.

Another Trenton success is a residential neighborhood behind the city's main street - State Street. This neighborhood refurbished many handsome brick townhouses through the efforts of a community organization.

Retrofit Development ... to form coherent patterns of settlement with a central focus where scattered and leapfrogged sprawl and isolated, single use developments have emerged in the past. It is on a larger scale than infill development.

Appropriate for metropolitan and suburban/corridor regions wherever new central foci for development are desired.

Retrofit development has particular potential in corridor or the fringes of metropolitan areas. It can provide a community focus where leapfrog sprawl has precluded it; or where attempts at centers have missed the mark by providing few uses not being compact, or being inadequately connected to itself and its surrounds, or some combination. Possible candidates for retrofitting on a large scale include Carnegie Center and Forrestal Village, both along the Route One/Princeton corridor.

While conceived as single, or limited, use developments (opposed to communities); through proper retrofit design each could become the nucleus of a community. A combination of methods such as tax increment financing, special improvement districts, impact fees, and transfer of development rights, among others, could be used to finance infrastructure and infill development between existing buildings or on existing surface parking lots. Value recapture and/or excess condemnation could be used to provide public transportation service to them. Existing development approvals and agreements would need to be amended to accommodate retrofit development. Development regulations in surrounding lands also would need amendment to prevent sprawl from spilling into it.

The advantage for retrofit in these two cases, besides forming a place and increasing property values, is that the land is under single ownership and sufficient regional market demand exists to support it. Regional cooperation is the link to combine these ingredients so that the substantial real estate forces can be harnessed into these potential centers.

Fringe (Outfill) Development ... on the fringe, or edge, of existing communities. These should be developed in a phased and sequenced manner, to expand the community outward by extending its existing street network, in order to absorb growth that would otherwise sprawl or leapfrog past the fringe.

Appropriate for towns, villages, and hamlets.

New Centers Development ... new nodes of growth that should be established where the existing settlement pattern is too sparse or haphazard to form a community of place.

Appropriate for rural regions and the exurban parts of suburban/corridor regions.

New centers development holds promise for rural New Jersey. One recent example is Main Street, Voorhees. This compact, multiple activity settlement nucleus was developed by the Radnor/Canuso Partnership. Its design highlights two specific aspects of good planning. It intends to absorb growth that would otherwise sprawl, and to give an exurban area without any focus on a community center. It was built with a main street as a central axis, with community space anchoring each end. Residences are : ... above and in close proximity to shops. Offices are adjacent to both. Structured parking is convenient to all, strategically located behind the structures.

A critical aspect of new center development involves the timing and sequencing of growth with infrastructure to support future phasing of additional residential and commercial uses. This should occur in a pattern to bolster the existing community arrangement.

The location of routine shopping needs - foods, pharmacy, laundry, etcetera - should be in the center of town along with other uses. In Main Street, these daily activities were placed in a typical "suburban" mini-center dislocated from "Main Street." This has influenced the new town's character and increased infrastructure needs. Creative techniques to enable the construction of this nucleus of a new community have involved public-private partnerships to make master plan and zoning revisions, infrastructure financing via exactions, and expedited permit approvals.

Transfer of development rights (TDR) is another method that, if statutorily available, can enhance the development of communities such as "Main Street." IDR's can make new centers more compact and cohesive by preserving their environs as sparsely settled rural areas, thereby enhancing community identity. Added IDR benefits are providing equity to rural landowners and saving tax dollars by preserving open land without public expenditure.

Rural Development ... in rural areas which is not focussed around communities of place, and occurs at densities that do not exceed the carrying capacities of existing infrastructure and natural resources.

Appropriate for rural regions outside of communities of place. 2.

Forms of Development

The physical form of development affects the physical and social setting of the community. The form of development should fit its context and should maintain desirable community character or create a desirable new character. The different forms of development are compatible-form, intense use, and mixed use.

Compatible Form Development ... blends with the form and pattern of surrounding or nearby development. It is particularly appropriate for redevelopment, infill, and outfill (fringe) types of development in all areas.

Intense Use Development ... new development that has a high ratio of floor area to land area. It makes the provision of public transportation more

feasible, and certain housing types more affordable. It is particularly appropriate for the largest towns, corridor centers, central business districts, and at strategic locations on public transit routes in metropolitan and corridor regions.

Intense use development is most effectively accomplished by using a variety of devices. A prime New Jersey example is Newark. There, intense, mixed-use development and redevelopment took place adjacent to Penn Station, hub of New Jersey Transit. Community, business, and government leaders merged their energy into a civic organization. Renaissance Newark. This group gathered momentum and availed themselves of a wide range of tools to rebuild their downtown. [B

Through inter-jurisdictional cooperation spearheaded by the State Department of the Treasury/ street level commercial uses were required and interior cafeterias were prohibited in State buildings and discouraged in others to promote pedestrian usage of the streets.

The cooperative efforts of all parties made Newark's revitalization .happen. No individual braved the attempt alone. All the work capitalized on Newark's role in the metropolitan region as a hub for commerce, culture, and government. Proximity to the rail station and its nearby amenities proved pivotal.

Mixed Use Development ... new development which contributes to a balance of residential, commercial, service and employment uses in and around a central place. It is particularly appropriate for any community of place except a hamlet, new centers development, retrofit Development, and large scale infill development.

3. Incremental Growth of Communities

The communities we live in are not static organisms. They evolve and change just as any living thing does. Regional design anticipates growth and change, while at the same time, organizing it in a way that is consistent with a set of underlying principles. These principles apply to the forms and types of development listed above. They are extracted from Christopher Alexander/s book A New Theory of Urban Design, Oxford University Press, 1987.

- a. Visionary Quality - Each community, and each project that develops it, would begin with custccn-designed approach which may include elements common to other places.
- b. Incremental Growth - The community is not conceived as a rigid concept to be designed and constructed at one time, but rather as a series of significant, inter-related, interdependent parts, which evolve over time through the actions of many individuals and organizations.
- c- Unity - The unit of the community is represented by a master plan, and vision of the concept of the whole. Each project should reinforce the overall concept, including the natural and the built environments.

- d. Positive Urban Spaces - Each project or building element should contribute to the making of attractive, useful community spaces, primarily public places and other meeting places.
- e. Relations to the Whole - Buildings and spaces would be carefully designed to relate to their context as well as to the overall plan. This should be especially true with regard to their internal layout and linkages to adjacent buildings and spaces.
- f. Creation of Pathways and Public Meeting Places - Each project should contribute to the creation of attractive pathways, such as streets, pedestrian alleys, greenways, and arcades, and of meeting places, such as plazas, squares and gardens.
- g. Flexibility - Changes over time should be permitted with respect to certain projects. Flexible permitting or suggested changes, adaptations, additions including changes in use and architectural style should be allowed to suit changing conditions.
- h. Essential Elements - The community should contain certain essential physical elements, without them, the community could not achieve an "authentic" character or sense of "wholeness." These include: a center; a street layout conceived as a whole; a border defined by a natural feature, planned buffer, or community service boundary; a center with a defined open space, community meeting space(s), mixture of uses, and space reserved for future public uses; and distinct districts or neighborhoods.
- i. A Sense of History - The community should reflect, in its plan and architecture, the influence of history that is particular to its locale.
- j. Financial Feasibility - All projects must be economically sound for the developer and fiscally sound for the municipality in which it is located, although certain projects with a greater public benefit may be subsidized.

4. Implementation Tools

Each form and type of development is associated with a set of planning and design tools that help shape it. It is up to the "builder" - the municipality along with its collaborators - to select the tools that work. A body of literature (see bibliography) and professional expertise has emerged that should be tapped so that municipalities can in fact attain communities of place.

Thus, when those interested in development go through the planning process outlined above, they will be able to refer to the list of tools presented here to get an indication of the technical activities needed to eventually result in a community of place. Some of them are not currently enabled under New Jersey state law. In order to enhance the implementation of the regional design system, it is desirable that additional tools be made available, along with the funds and technical assistance to use them.

Planning Tools:

procedural: interjurisdictional coordination
public-private partnerships
regional agencies with specific planning functions
community development corporations neighborhood
development organizations
capital improvements programming linked to land use planning
county/municipal partnerships

legal: master plan and elements zoning ordinance
development regulations inter jurisdictional
agreements regional and community public services
boundaries timing and sequencing growth and
infrastructure

Financing and Development Tools;

government roles:

police power: linkage fees for housing and social
services
impact fees for infrastructure
regulations
transfer of development rights for equity
mitigation, formation of new communities

eminent domain
power: advance/excess condemnation for strategic
land acquisitions for infrastructure and
parklands
value recapture for public investment in
infrastructure that induces large-scale
growth
land assembly for new centers or intense,
mixed-use development

taxing power: special improvement districts
service districts
authorities
development fees
bonding
tax increment financing
tax abatement
property tax

Joint Public-Private Roles;

joint development incentives
for development public
development corporations
enterprise zones

Private Sector Poles:

developers
community-based: neighborhood development
organizations, cooperatives, community
development corporations
not for profit organizations

VI. CONCLUSION

Realizing the vision of the Regional Design System requires thoughtful planning. Overall, it emphasizes the regional context (i.e., extra-jurisdictional) for the planning and design of more beneficial settlement patterns (i.e., "communities of place"). It supports both new development as well as redevelopment taking place in compact settlements with a regional point of view, and emphasizes the fact that many of the problems that growth management tries to solve are regional in nature and spill across the landscape without regard to municipal and county borders.

The intention is that through its emphasis on careful and compact design, on mixed-use and clustered development, on a system of hierarchy of communities, the Regional Design System will serve as an attractive and cost-effective alternative to the development that has proven to be too typical of New Jersey growth patterns of the past four decades. It is an attempt to direct growth into places where infrastructure exists or can be built more efficiently, to time and sequence the provision of public services with growth, to channel growth into growth nodes, to place those nodes along certain identified growth corridors, and to acknowledge a broader set of interrelationships of "communities of place."

Regional Design is also intended to meet the multiple mandates contained within the New Jersey State Planning Act. The patterns of development encouraged by the Regional Design System will facilitate the provision of public facilities and services at a reasonable cost. Affordable housing opportunities will be advanced through clustering and mixed-use and the prospects for public transit will be enhanced through increased densities. The negative effects of future development on the environment may be reduced, a via agricultural industry will be supported, and the landscape will be respected. Regional growth management would also involve the interaction of municipal, county, and State officials as well as the non-profit and private sectors.

As the historical section previously indicated, "communities of place" offered locations that were attractive as places to live, and were largely influenced by their surrounding environs in terms of their providing an underlying socio-economic base. Currently, given New Jersey's position in the global economy and telecommunication network, those environs no longer so strongly influence the nature of their communities. Yet, there are many positive attributes that those communities provided that ought to be advanced. Accomplishing the vision of communities of place requires a conscious effort involving careful planning that blends a recognition of 21st century socio-economic forces with the important aspects of our

heritage. Overall, the Regional Design System intends to provide more balance among the rural, suburban and urban areas in New Jersey. A function of its approach also provides an attractive growth accommodating alternative to the increasingly costly conventional sprawl settlement pattern, while simultaneously taking into account the changing conditions of a new era.

DEFINITIONS

The following list consists of -brief definitions or descriptions of terms used in the Regional Design System Technical Reference Document. Generally, these definitions are meant to supplement the text of this document and are not meant to be exhaustive or comprehensive.

OOMPBIMKnOM is a process by which the property of a private owner is taken for public use without the consent of the owner but with the payment of just compensation. It operates much like a forced sale of property and can be used to acquire either the full fee simple absolute or a right in the property which is less. It is based on the power of eminent domain, (from ...Godschalk, Brewer, McBennett and Vestal, GONSTHUTICNAL ISSUES OF GOTTH MANAGEMENT, The ASPO Press, 1977)

EXACTIONS are contributions that a developer gives to a municipality for improvements directly associated with the project before development approval is granted. Exactions may entail the construction of an improvement, dedication of land for a specific purpose, or money-in-lieu of construction or land. Because the exactions are tied to improvements directly associated with the development, the improvements are typically located on-site or directly adjacent to the development site.

IMPACT FEES are a type of special assessment. They are pro-rata charges levied on development to offset the costs of growth. It is a payment that is required from a developer at the time of development approval calculated to provide a proportionate share of the cost of providing major facilities and services that will service the new development. The legal justification for impact fees is that a reasonable burden for the cost of growth may be shifted to the developer as a legitimate exercise of the police power in order to protect the public health, safety and welfare. Impact fees have been used for decades to provide on-site improvements such as new roads, water and sewer lines, and drainage facilities. Increasingly, impact fees are also used to help cover the expenses of providing schools, libraries, parks and recreational facilities, fire and police stations and equipment, and medical facilities. Assessing the impact fees for these off-site facilities rests upon the judgment that new development increases the overall demand throughout the community for those expansions and improvements.

JOINT PUBLIC/PRIVATE DEVELOPMENT TECHNIQUES offer opportunities for the public sector to play a more active role in initiating/encouraging of private development in order to benefit the public good (e.g., revitalize urban areas). In some states, revenue derived from joint public/private development partnerships can be used to fund public facility needs. [Note: See Robert H. Freilich and Stephen P. Chinn's article, "Transportation Corridors: Shaping and Financing Urbanization Through Integration of Eminent

Domain, Zoning, and Growth Management Techniques" from the Proceedings of the Institute on Planning, Zoning, and Eminent Domain, Municipal Legal Studies Center, Dallas, Texas, November 12-14, 1986, Editor Janice R. Moss, 1987.]

IAND ASSEMBLY can be used as an important role of the public sector in the joint public/private development process. The public sector's contribution may be to assemble land or to assist in the assemblage of land through the dedication of government-owned property, through acquisition, or through the exercise of its power of eminent domain, (from Freilich and Chirm "Transportation Corridors: Shaping and Financing Urbanization Through Integration of Eminent Domain, Zoning and Growth Management Techniques"-)

IJNKAGE FEES hinge approvals of development, frequently commercial or industrial with some other social need such as affordable housing. The legal justification is that such development generates the demands and can therefore be assessed a pro-rata cost to meet the social need. Impact and linkage fees must be earmarked for specific projects or they may be considered as tax by the courts. Payments must be deposited into a special trust fund that is restricted for the purposes for which the fees were collected. Impact fees are based upon a formula, either a fixed assessment calculated on a per development unit or square footage basis, or on an algorithm in which the assessment depends on the location of the project from existing services and facilities.

SERVICE DISTRICTS are geographically bounded areas where public facilities and services are to be provided to service development. They are public facility service areas which are adjusted over time in order to accommodate and manage growth in addition to managing the facilities themselves.

SPECIAL ASSESSMENTS, IMPACT FEES, AND UNKMS FEES are "special benefit" exactions which may be utilized to generate the revenues necessary to finance public improvements related to new development where limited or deficient infrastructure exists. Special benefit exactions may be used to shift the burden of the cost of providing new facilities and benefit from the improvement. New development pays its fair share as the primary beneficiary of the new facilities and services. Mechanisms for special benefit exactions aside from impact and linkage fees, could include special assessments, the establishment of special assessment districts, land dedications, and money-in-lieu of land dedications. These special assessments not only create sufficient revenues to provide for the necessary new facilities and services, but also create appropriate incentives and disincentives to influence the location and timing of development so as to be consistent with the aims of the Regional Design System.

SPRAHL is a pattern of physical development occurring on a large scale since 1938, characterized by the continued decentralization of commercial service and institutional facilities into rural areas and the out migration of upper and middle income families resulting in deterioration of the central cities. The pattern of development in rural areas is Euclidian, formed fcy zones of single use buildings at very low density preventing a sense of community, requiring the use of a private vehicle as the form of movement, and where

connoercial, civic, community and jobs are dispersed and scattered, not in .close proximity to housing or each other, typically located along arterial roads and at intersections. (A. Nelessen Associates)

SUBDIVISION OCMTROLS are administrative municipal land-use controls. They are flexible planning tools which rely upon negotiations with individual applicants. During the application process, the developer often sets aside land for open space and recreational needs, necessary street improvements, and the required water and sewer systems. Conditions vary according to identified needs. Conditions and set asides must bear a reasonable relationship to the infrastructure and social costs created by the particular development activity.

TRANSFER OF DEVELOERiEMT RIGHTS is an equity mitigation tool which attempts to balance the development value added to "urban" lands with the development value "subtracted" from lands appropriate for limited development. A land owner in the sending area designated for limited development is given the option to "transfer" his ability to build (development rights) to other land, in a a receiving area, designated for development. A market is then ..created in which rights are purchased by landowners in receiving areas from landowners in sending areas. The compact communities suggested in the Regional Design System would be located in the receiving areas and the sending areas would be the lands surrounding those centers. Transfer of Development Rights programs have the advantage of addressing land equity questions through the transfer of rights with a minimum of costs to the public sector.

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