



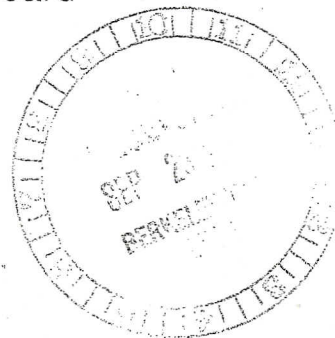
SCHOOR DEPALMA
Engineers and Design Professionals

BERKELEY TOWNSHIP COMPREHENSIVE MASTER PLAN

Prepared for The Berkeley Township Planning Board
adopted December 4, 1997

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The original of this report was signed and sealed in accordance with NJSA 45-14-12

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1.0 INTRODUCTION

This Comprehensive Master Plan has been prepared under the direction of the Berkeley Township Planning Board and is intended to provide a careful assessment of the existing use of land in the Township, the rate and nature of past and present development, the future development potential under existing zoning parameters and environmental constraints, the capacity of existing infrastructure to serve projected growth, the fiscal impact of projected growth, and a Land Use Plan for balancing the Township's growth potential with its growth capacity through amendments to the Land Development Ordinance and Zone Plan Map.

2.0 REGIONAL CONTEXT

The Township of Berkeley is located in southern Ocean County, south of Toms River, east of Manchester Township and north of Lacey Township. The Township is served by the Garden State Parkway and New Jersey Route Nine, as well as a number of County roads. The Township has frontage on the Barnegat Bay, Toms River and the Atlantic Ocean. Major portions of the Township are within both the Coastal Management Area (CAFRA) and the Pinelands, and the Township hosts several large state and county parks, including Island Beach State Park.

The housing stock consists predominantly of single-family homes of post-war ranch and cape cod styles, with newer subdivisions and a phenomenal growth of retirement communities constructed over the last 26 years. The Township also contains a number of housing developments on lagoons and has a significant incidence of second homes used for summer vacation homes.

The Township has several areas with distinctive characteristics, generally defined by the physiographic edges of the Garden State Parkway, Toms River, Barnegat Bay, Cedar Creek and the Pennsylvania Railroad right-of-way, now used by Jersey Central Power and Light Company for power transmission lines. The Parkway effectively splits the Township in half and most current development has occurred either along Route 9 in the southeast third of the Township, or in large retirement communities in the northwest third of the Township. The southwest third of the Township is largely undeveloped, except for the R.J. Miller Airport, and is dominated by forested lands of the Pinelands Area. Shore neighborhoods of Pelican Island and South Seaside Park have their own unique resort character relative to the year-round character of most of the rest of the Township.

3.0 EXISTING LAND USE

As might be expected from the general description given above, the Township was a rural and summer vacation community relying on an economic base of agriculture and tourism until the 1950's, when a marked increase in the popularity of the Township's rural and seaside character fueled new residential construction leading to a doubling of the Township's year round population by 1960 and a redoubling by 1970. The emergence of a huge market for "planned retirement communities" within the Ocean County region caused a tripling of the Township's population between 1970 and 1980 and another 65% increase between 1980 and 1990. As a result, the Township has become largely transformed into a developing, year-round residential suburb.

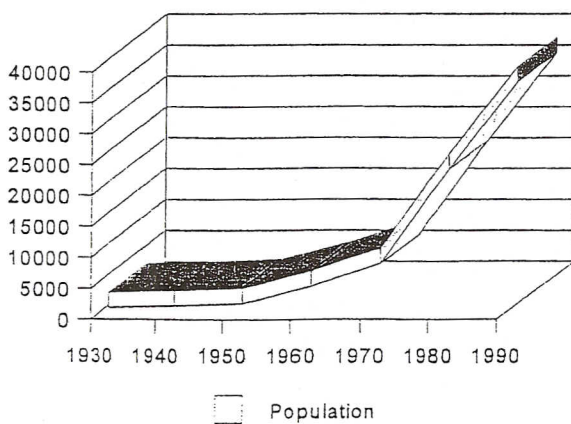
The tables and graphics that follow illustrate the remarkable growth of the Township and the dominant senior component in that growth over the last ten years.

POPULATION GROWTH 1930-1990

Year	1930	1940	1950	1960	1970	1980	1990
Population	811	1,127	1,550	4,272	7,918	23,151	37,319

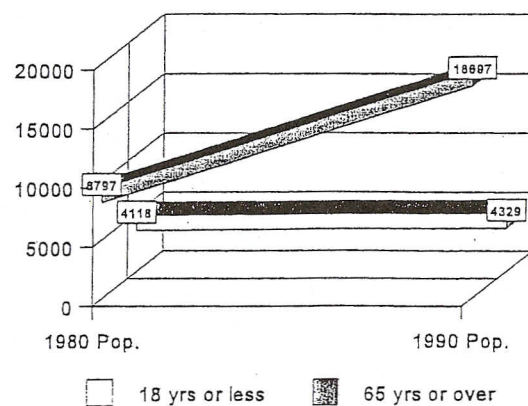
Population Growth 1930-1990

Berkeley Township, New Jersey



Population Change 1980 to 1990

Berkeley Township, New Jersey



Population Change By Age Group - 1980 to 1990

AGE	1980 Pop.	1990 Pop.	% Change
18 yrs or less	4,118	4,329	5.12%
65 yrs or over	8,797	18,697	112.53%

Simply using historic trends and anticipated settlement patterns, the growth and development in Berkeley Township can be expected to continue to be fueled by new residents migrating from other parts of the State, primarily urbanized areas of northern New Jersey. This inference is obvious when the historic growth illustrated above is compared to the vital statistics of the indigenous population as shown below:

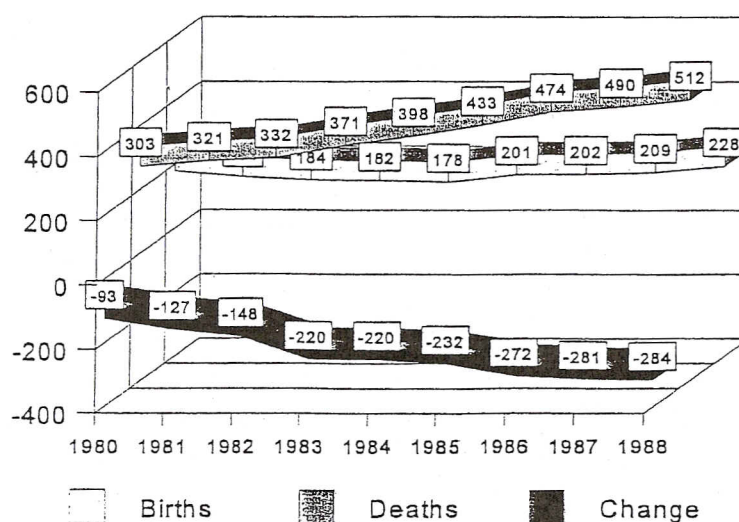
NATURAL POPULATION CHANGE - 1980 to 1988

Berkeley Township, New Jersey

	1980	1981	1982	1983	1984	1985	1986	1987	1988
Births	210	194	184	182	178	201	202	209	228
Deaths	303	321	332	371	398	433	474	490	512
Change	-93	-127	-148	-220	-220	-232	-272	-281	-284

Natural Population Change - 1980 to 1988

Berkeley Township, New Jersey



The table shown on the following page illustrates the difference in the composition of Berkeley Township's population as compared to Ocean County as a whole. Essentially the breakdown of working age to retirement age components of the populations are reversed for the Township and County.

1990 POPULATION BY AGE - Berkeley Township and Ocean County

	Township	% Total	County	% Total	+/- Variance
TOTAL	37,319	100%	433,203	100%	0
0-5 yrs.	1,186	3.18%	28,816	6.65%	-3.47%
6-17 yrs.	3,150	8.44%	69,349	16.01%	-7.57%
18-64 yrs.	13,993	37.50%	234,630	54.16%	-16.67%
65 and over	18,990	50.89%	100,408	23.18%	+27.71%

The table below applies the 1990 percentages by age group to the County's 1995 total population estimate for Berkeley Township and compares it to figures generated by applying the projected annual growth rate by age group for the County as generated by the State Data Center and applied to the Township.

PROJECTED POPULATION GROWTH BY AGE GROUP

	1990 Pop. (1990 Census)	% TOTAL 1990 Census	1995 Population (Estimated)	2000 Population (Estimated)	2005 Population (Estimated)	2000 Population (from projected annual growth rates)	% Total Estimate
0-4 years	1,186	3.18%	1,264	1,346	1,435	1,233	1.86%
5-19 years	3,150	8.44%	3,356	3,576	3,810	4,662	7.05%
20-64 years	13,993	37.50%	14,909	15,886	16,926	28,546	43.15%
Over 65 years	18,990	50.89%	20,233	21,558	22,970	31,713	47.94%
TOTAL	37,319	100.00%	39,762	42,366	45,141	66,154	100.00%

As can be seen in the preceding tables, the population of persons over the age of 65, whether projected using current percentage breakdowns or regional annual growth rates is expected to remain at around half the total population as it expands to the year 2000 while the population under 18 is expected to remain stable.

Using a different methodology for population estimates and projections based on the 1990 census population, the number of persons per household for Berkeley's four (4) census tracts and the number of residential building permits issued from January 1, 1990 through the end of 1996 provides an estimate of 41,297 persons in 1996. This estimate is only slightly greater than the 1995 estimate above. When projected to 2010, however, the population projection using this methodology significantly lags the projection generated above using projected annual growth rates for Ocean County as generated by the State Data Center. Our projection of the number of persons residing in Berkeley Township in 2010 was generated from the amount of new residential development in the Township, the number of buildable lots in the Pinewald Section of the municipality (based on our report "Pinewald Area Sanitary Sewer System Concept Plan Report" dated December 1994, and our estimate of total population in Berkeley for 1996. This method gave us a projection of 54,166 persons in 2010. Essentially, this number was arrived at by coupling the anticipated residential population to be generated from approved/planned subdivisions along with the number of buildable lots in the Pinewald Section of the community multiplied by the persons per household figures. This number is significantly lower than the population projection predicated on the growth rates from the State Data Center, which projected 66,154 persons in Berkeley Township in 2000.

We believe that the projection based on building permit activity is more closely aligned with the development patterns realized by the Township. Further, the building permit methodology also considered available buildable lots in the Pinewald area, thereby creating a more accurate assessment of development potential.

PROJECTED POPULATION GROWTH BY BUILDING PERMIT ACTIVITY

	1996 Estimate	2010 Projection
Berkeley Township (building permit activity)	41,297	54,166
Berkeley Township (State Data Center Projection)	<u>1995 Estimate</u> 39,762	<u>2000 Projection</u> 66,154

3.1 Total Land Area

The total land area of Berkeley Township encompasses 41.90 square miles or 26,816 acres.¹ Of the total land area, 10,304 acres or 38.4 percent, is regulated by the Pinelands Commission.² Additionally, 16,512 acres or 61.6 percent of Berkeley Township is regulated by the Coastal Area Facilities Review Act (CAFRA).³ While much of the Township is regulated due to environmental sensitivity, there remains a considerable amount of developable land within the Township. The following table shows the distribution of land use in Berkeley Township. Roughly half, or 55.2 percent of the Township remains vacant. Of the developed land in the Township, single family residential is the predominant use.

DISTRIBUTION OF LAND USES - 1996

	ACRES	PERCENT OF TOTAL LAND AREA
TOTAL	26,816	100%
CAFRA	16,512	61.57
PINELANDS	10,304	38.42
SF RESIDENTIAL	5,864	21.87
MULTI-FAMILY 2 OR MORE UNITS	26	.09
COMMERCIAL	575	2.14
INDUSTRIAL	942	3.51
VACANT	14,810	55.23
FARMS/ QUALIFIED FARMLAND	746.5	2.78
GOVERNMENT/PUBLIC	3,767	14.04
TAX EXEMPT CIVIC PROPERTIES	85.45	.31

* Acreage are approximate ** Numbers may not total due to rounding

¹Ocean County Data Book. Fifth Edition. Prepared by the Ocean County Planning Board, January 1996.

²Ibid.

³Ibid.

3.2 Residential

Approximately 5,864 acres in the Township are devoted to single family residential land use; this is approximately 21.9 percent of the total land area in the Township. In addition to the acreage devoted to single family land use, there is a much smaller percentage of land, .09 percent, or 26 acres devoted to apartment housing and/or multi-family use.

The current pattern of development in Berkeley Township is synonymous with a maturing residential suburb. The northwest portion of the Township is largely developed with planned residential retirement communities. These retirement communities are developed as single-family, tract-style subdivisions. The majority of these communities are at or near completion. The eastern portion of the Township is primarily developed with older post-war subdivisions, as well as some new residential development occurring along the lagoons and east and west of State Highway No. 9.

New development in the Township has occurred primarily east of the Garden State Parkway. Recent developments include Sonata Bay, a well designed senior community consisting of single family attached and detached units. Additionally, other newer residential subdivisions such as Sunnydale at Berkeley, Berkeley Estates and the Mill Creek Island Condominiums have been constructed off Mill Creek Road. Berkeley Villages North (Deer Chase) and Berkeley Villages South together will add an additional 331 single family homes near Station Road. Hidden Meadow at Berkeley is another new development in the Township.

The Bayville section of Berkeley Township is developed with primarily post-war colonial, or ranch style subdivisions. In many of these older neighborhoods, there is evidence of physical and structural upgrading of the housing, as well as efforts to improve the overall appearance of the housing and quality of the neighborhood. Many homeowners have invested in improvements such as new window treatments, siding, and exterior porches. Although these are older neighborhoods, they are well maintained and in generally good condition.

The lagoon communities are characterized by smaller summer bungalows, however, it is not uncommon to see a newer, larger, architecturally modern home constructed in and amongst the bungalows. This pattern of development suggests that Berkeley Township has moved away from a seasonal vacation home community and has gravitated towards a maturing, year-round, residential suburb. Additionally, there are several newer residential enclaves such as The Moorings, a 54 unit single family subdivision, The Landings, a condominium development and Laguna Harbor, a single-family subdivision targeting the middle-aged consumer. The large Berkeley Shores lagoon community was completed during the 1980's.

The South Seaside Park and Pelican Island section of the Township have the unique character of a year-round resort community. The South Seaside Park section, however, does have some smaller bungalow type housing which is primarily utilized as summer rentals. The Berkeley Township Housing Authority manages housing developments for low-income residents. Magnolia Gardens, a multi unit apartment complex, operates under the Housing Authority.

Future residential growth in the Township is anticipated to occur in the Pinewald Section of Berkeley Township. This growth will occur primarily as infill housing on existing subdivided lots, as much of this area is constrained by environmentally sensitive lands. Additional growth is also expected to occur around the Route Nine corridor. Further residential growth, both single family and multi-family, is anticipated to occur north of Route Nine and on the western side of Mill Creek Road.

Residential development in the northwest portion of the Township is determined to be at or near capacity with the completion or near completion of the retirement communities. Significant residential growth west of the Parkway is not anticipated to occur as the majority of that land is environmentally sensitive and regulated by the Pinelands Commission.

Manitou Park is an existing residential community west of the Garden State Parkway and bordering the Borough of South Toms River. This community exhibits a mix of both single-family and multi-family housing as well as a number of civic institutions and a park. Additionally, the Berkeley Township Housing Authority operates multi-family housing developments within Manitou Park. Montara at Berkeley is a proposed subdivision of 163 single family homes to be constructed at the back of Manitou Park. The status and feasibility of this project being constructed is uncertain at this time. Manitou Park is also the site of several scattered affordable housing sites.

3.3 Commercial

The commercial component of Berkeley Township comprises approximately 575 acres or just under two (2) percent of the total land in the Township. This commercial development occurs primarily along the Route Nine corridor as strip-mall and shopping center developments. Signage advertising these business establishments in the Route Nine corridor continues to be a problem. Many establishments erect multiple signs which pose a potential problem for motorists traversing Route Nine and add to the visual clutter along the Highway.

An Ordinance has recently been adopted which regulates the type, location and size of signage which is permissible in the Township

There is also a commercial concentration along Central Avenue in South Seaside Park. This commercial concentration was originally destined to serve the needs of vacationers on the Jersey Shore. There is evidence, however, that this commercial area has responded to the

shifting of Berkeley Township from a summer vacation spot to a maturing suburb. Many of the restaurants and other establishments do not close after the summer season, rather, they are open year round and supported by the indigenous population of the Township during the winter months.

The two areas mentioned above, the Route Nine corridor and Central Avenue in South Seaside Park, maintain the heaviest concentration of commercial development in the Township. There are additional commercial establishments, specifically, two malls serving the needs of the retirement communities in the northwestern portion of the Township. Additionally, there are a number of marinas located throughout the Township serving the needs of boaters on the Barnegat Bay.

Future commercial development in the Township is anticipated to occur along the Route Nine corridor.

3.4 Industrial

Industrial lands comprise approximately 942 acres, or just over three and one half (3.5) percent of all land in the Township. American Telephone and Telegraph is one of the largest industrial land users in Berkeley Township; their facilities utilize approximately 167 acres on Goodluck Point. Additionally, there are several extractive and mining industries that are operational, however, there may be a higher and better use for these properties. The potential economic upgrading of these properties should be considered.

The area bordering Beachwood Boro, to the southwest of the old railroad line is currently used for extractive industry. This area has been targeted by the County and DOT for the possible extension of a road through the property. The purpose of this roadway improvement would be to reduce congestion on Route Nine while providing an alternate access road to the southern section of the Township as well as communities to the south of Berkeley Township. The construction of a road through this property invites opportunity to utilize this property for a higher and better use than extractive industry.

3.5 Institutional

One of the most architecturally significant properties in the Township is the Bayview Nursing & Convalescent Center. This care center is constructed in the art deco architectural style and was originally built in 1928 as the Royal Pines Hotel. The facility has 324 beds and is a full care and rehabilitation center. There is a modern addition on the facility. This imposing structure serves as the terminus point for Central Boulevard. In addition to this care center, there is a mental health clinic as well as the Bayville Convalescent Center within the Township boundaries.

3.6 Public/Community Facilities

Berkeley Township maintains a plethora of community facilities to serve the needs of Township residents. Government, or public land uses comprise 3,767 acres, nearly fifteen (15) percent of all land in the Township. Included in this land area are the public elementary schools and high school campus, fire stations, Municipal Utility Authority properties, the municipal facility and police stations located on Pinewald-Keswick Road, as well as Township parks, the golf course, and other community facilities. At this time, the community facilities serving the residents of the Township are determined to be adequate.

A very small percentage of land in Berkeley Township, approximately .32 percent, is classified as tax exempt civic properties. Included in these 85.45 acres of the Township are establishments such as the VFW, churches, cemeteries, and other like civic institutions.

3.7 Vacant

While there is a substantial portion of the Township that is developed, over half, or 55.2 percent of the Township remains vacant. Most of this vacant land lies west of the Garden State Parkway and is undeveloped due to the fact that it is regulated by the Pinelands Commission. It is not reasonable to expect any large scale development to occur in this area. In addition to having a large area, approximately 10,104 acres regulated by Pinelands regulations, a significant portion of the Township is constrained in some way by environmental factors, especially regulated wetlands.

In light of the fact that there is a significant amount of wetlands, the Township must also contend with a host of other legislation including, but not limited to, the Coastal Areas Facilities Review Act (CAFRA) and the Freshwater Wetlands Act. Unlike the area west of the Parkway regulated by Pinelands where little or no development has or will occur, the land east of the Parkway, while regulated by CAFRA, has been developed to some extent. As such, the CAFRA legislation has not been a complete impediment to development as the Pinelands regulations have been.

4.0 REGULATORY FRAMEWORK

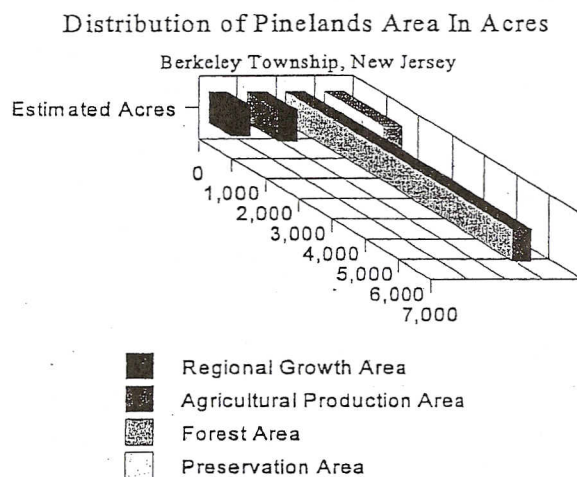
4.1 Federal and State Pinelands

Beginning in 1984, the Township Planning Board adopted a separate sub-element to its Master Plan dealing with that portion of the Township included in the Pinelands Area. This Pinelands Master Plan Sub-element contained its own Land Use, Circulation, Housing, Community Facilities, Recreation, Utilities, Conservation and Energy Elements, and was

updated in 1987 and again in 1988 to respond to changes to the Pinelands Plan. It has not been updated since 1988.

The 1984, 1987 and 1988 Pinelands Sub-elements vary very little in content and organization and revisions consisted mainly of paragraphs added or deleted from revision to revision. However, a number of critical policies carry over through the documents and bear repeating here so that the Master Plan provisions for the Pinelands can be compared and integrated into those applicable to the rest of Berkeley Township.

The area of the Pinelands within Berkeley consists of 10,304 acres located generally west of the Garden State Parkway, south of the JCP&L/Pennsylvania Railroad right-



of the Garden State Parkway, south of the JCP&L/Pennsylvania Railroad right-of-way. Of this area, the portion of the Cedar Creek Drainage Basin west of the Parkway is designated as Preservation Area, and the remaining land is designated as Protection Area. Overlapping the Pinelands Area is the Pinelands National Reserve, consisting of 19,500 acres lying east and west of the Parkway, south of Route 37 to the barrier island. While the Reserve includes the portion of the Township north of the JCP&L right-of-way and west of the Parkway, as well as the

portion east of the Parkway and south of County Route 618 (Forest Hill Parkway-Veterans Boulevard), only the areas in the State Pinelands Area are under the regulatory jurisdiction of the Pinelands Commission.

The State Pinelands Protection Area categories designated within Berkeley Township are Forest Area, Agricultural Production Area, and Regional Growth Area. Various densities are permitted within these Protection Areas ranging from one dwelling unit per 20 acres on lots of at least 3.2 acres in size in the Forest Area; to one unit per 10 acres if part of a farm or agricultural use in the Agricultural Production Area; to an overall density of one dwelling unit per 3.2 acres in the Rural Development Area; to between 1 and 3.5 dwelling units per acre in the Regional Growth Area. A tabulation of the acreage in Berkeley Township within the various Protection Areas is included below.

DISTRIBUTION OF PINELANDS AREA IN ACRES -
BERKELEY TOWNSHIP, NEW JERSEY

	Estimated Acres	Percent Total Acres In Township	Permitted Density	Potential Dwelling Units
Preservation Area	1,770	6.60%	N/A	N/A
Forest Area	6,913	25.78%	1 DU/20 Acre	317
Agricultural Production Area	940	3.51%	1 DU/10 Acre	94
Regional Growth Area	687	2.56%	3.37 DU/Acre (Ave.)	2,317
Total	10,310	38.45%		2,728*

*The 94 dwelling units within the Agricultural Production Area are not likely to be developed due to wetlands constraints.

According to the 1988 Pinelands Master Plan Sub-element of the Berkeley Township Master Plan, the original 1984 Sub-element was conditionally approved by the Pinelands Commission on November 5, 1982, as set forth in N.J. Pinelands Commission Resolution No. 82-86.⁴ Subsequently, the Township adopted Ordinance No 84-34-OAB to bring its Master Plan and Land Development Ordinance into compliance with the Pinelands Comprehensive Management Plan. The Pinelands Commission, on October 4, 1985, adopted Resolution No. 85-59 granting complete, unconditional certification for the Land Use Ordinances and Master Plan of the Township. Shortly thereafter, a Commissioner challenged the favorable vote of the full Commission on Berkeley's certification. The Appellate Division ruled in favor of the Commissioner, effectively decertifying the Township Master Plan and Land Development Ordinance. As a result, applicants for development within the Pinelands Area in Berkeley Township must first obtain a certificate of approval from the Commission prior to making application before the local Planning Board or Board of Adjustment.

The Pinelands Sub-elements have undergone relatively minor change in the two revisions (1987 and 1988), with the most significant difference being the redistribution of areas

⁴Revisions to the Master Plan of the Township of Berkeley, Ocean County, New Jersey, Applicable To Those Lands Regulated By The Pinelands Comprehensive Management Plan, Resolve, Inc., February 1988, Page 1.

designated in the Rural Development Area (65 acres) or the Municipal Reserve/Rural Development Area (368 acres) to either the Agricultural Production Area, Forest Area or the Regional Growth Area.⁵ Part of the redistribution was due to the waiver of strict compliance granted by the Pinelands Commission allowing Hovson to develop 1,411 dwelling units on 380 acres of its Holiday Heights tract in exchange for deed restricted open space in the southern portion. The resulting density of 3.7 dwelling units per acre is within the range normally only permitted in the Regional Growth Area. The Township has therefore moved from having four Protection areas to three within its boundaries.

4.2 Coastal Area Facility Review Act (CAFRA)/Flood Hazard Areas

Berkeley Township maintains approximately 10.28 miles of ocean frontage.⁶ Consequently, CAFRA regulations are applicable in nearly sixty two (62) percent of the Township. The CAFRA regulations primarily affect the portion of Berkeley Township due east of the Garden State Parkway.

CAFRA was first enacted by the New Jersey Legislature in 1973 and then amended in 1993. The legislation recognizes the need to provide "adequate environmental safeguards" for shore development while encouraging "the development of compatible land uses in order to improve the overall economic position of the inhabitants of that area."

CAFRA regulations are designed to provide added protection for sensitive coastal areas at the water's edge. Additionally, areas known to be inhabited on a seasonal or permanent basis by any endangered species of wildlife or vegetation are considered to be Special Areas in need of protection. One of the requirements is that a CAFRA permit be obtained before a single-family house or duplex is constructed, expanded or voluntarily reconstructed under certain specified conditions. Locational requirements are based on location of the house on a beach or dune, within 150 feet of the water line or the landward limit of a beach or dune, or, if the house is or would be the first structure inland from the water, beach or dune. If the house does not meet these locational requirements, a CAFRA permit need not be obtained.

CAFRA also requires that a permit be required for residential and commercial developments based on certain criteria such as distance of the proposed development landward of the mean high waterline of any tidal waters. Additionally, permitting requirements for residential developments are tied to the number of units in the proposed development while permits for a commercial development are tied to the number of parking spaces the development will

⁵Comparison of Berkeley Township Master Plan Pinelands Sub-element Revisions of 1987 and 1988.

⁶Ocean County Data Book, Fifth Edition, Prepared by the Ocean County Data Book, January 1996.

provide. For further clarification on exactly what type of development requires a permit, contact the Department of Environmental Protection.

While CAFRA does regulate the majority of Berkeley Township east of the Garden State Parkway, it has not been an impediment to development. There are several residential subdivisions, as well as single family homes and business establishments that have been developed within the CAFRA boundaries. As such, the goals of CAFRA are furthered, as the legislation does not intend to put a moratorium on development, but rather to achieve a balance between preserving sensitive coastal areas and economic development.

Other permits aside from CAFRA that may need to be obtained prior to construction in an environmentally sensitive area include, but are not limited to the following: Tidelands Conveyance, Freshwater Wetlands, Coastal Wetlands, Stream Encroachment, Waterfront Development, Pinelands Approval, Treatment Works Approval, Army Corps of Engineers, a Wastewater Management Plan and/or County Board of Health approval for a subsurface sewage disposal system may also be required.

5.0 ANALYSIS OF DEVELOPMENT TRENDS & CONSTRAINTS

5.1 History of Growth in Housing and Employment

5.1.1 Household Size

As can be seen from the table displayed below, even though the total households increased from 1980 to 1990 by 21%, as compared to 31% for Ocean County, the number of persons per household declined by 11% from 2.36 to 2.09 persons, while the median household size for Ocean County decreased 5% (2.67 to 2.54) over the same period. While the decline in household size is a national and regional trend, the doubled rate of decline in household size in Berkeley Township can likely be explained by the large immigration of one and two person senior households into the developing retirement communities.

Households, Families and Persons per Household Berkeley Township and Ocean County 1980 and 1990								
	1980 Total		1990			% Total	Total	Persons per Household
	Population	Households	Persons per Household	Population	Families	Households	Households	
Berkeley Twp.	23,151	9,614	2.36	37,319	12,360	70.17%	17,614	2.09
Ocean County	342,842	128,304	2.67	426,852	120,783	71.83%	168,147	2.54
Source: US Bureau of the Census, Census of Population and Housing, 1980 and 1990								

5.1.2 Affordable Housing

Despite the relatively recent construction of most of its housing stock, Berkeley Township offers some of the most reasonably priced homes in Ocean County. To illustrate, consider that the median value of owner occupied housing units in the 1990 Census for Berkeley was \$103,100, which was the fourth lowest of the 33 Ocean County municipalities. The three towns that had lesser cost housing: South Toms River Borough, Lakehurst Borough and Manchester Township are principally either small, older and fully developed, or poorer and somewhat isolated.

Rental units have shown a slight gain in cost relative to the rest of Ocean County. In 1980, Berkeley was ranked 19th out of the 33 Ocean County towns in median contract rent. By 1990, the Township moved up to 17th in median contract rent. Fifteen of the 33 towns saw rent rise faster than Berkeley, while 17 towns experienced a lesser rate of increase. This rental history can best be summed up by comparing the median rents of Berkeley Township with Ocean County in 1980 and 1990. Berkeley's 1980 median rent was an exact reflection of the County's (both at \$243), while the Township's rents increased at a slower pace than the County's to \$568 in 1990, compared to the County's \$578. For a complete analysis of the affordable housing and the Berkeley Township Fair Share Plan please refer to the Berkeley Township Master Plan Housing Element & Fair Share Plan Addendum.

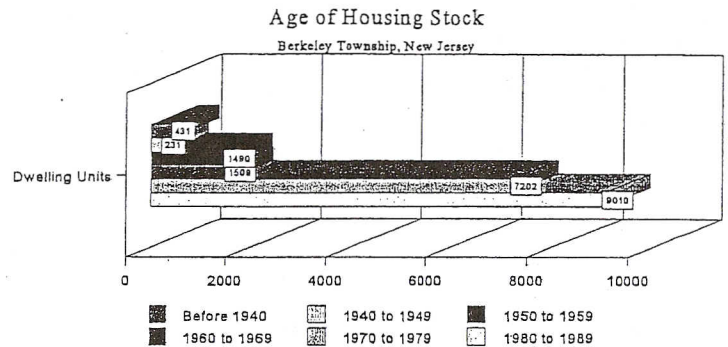
5.1.3 Income

Income is analyzed in the tables below for the Township and compared to the county, state and national figures for 1990. In general, New Jersey incomes have exceeded the national average. Ocean County has seen household and family incomes lower than the State as a whole, while per capita income is higher in the County than state and national levels. Berkeley Township has lagged behind both the State and the County in per capita income, and significantly behind the State and County in household income and family income.

Comparison of Median Household, Median Family and Per Capita Income for Berkeley Twp.		
	Household	Family
	1989	1989
Berkeley Township	\$23,028	\$27,576
Ocean County	\$33,110	\$39,797
State of New Jersey	\$40,927	\$47,589
Comparison of Per Capita Money Income-1989		
United States	\$14,420	
New Jersey	\$18,714	
Ocean County	\$18,936	
Berkeley Township	\$18,102	
Source: US Bureau of the Census, 1990 Census of Population and Housing		

5.1.4 Age, Condition, Value & Occupancy of Existing Housing Stock

The graphic shown herein illustrates the recent growth of the housing stock in Berkeley Township. The housing stock is primarily single family residential, about 15% of which was built as post World War II tract subdivisions along man-made lagoons and used largely for seasonal housing. Over 81% of the homes in the Township were built between 1970 and 1990, and only two percent of the dwelling units were built before 1940.



AGE OF HOUSING STOCK IN 1990

	Dwelling Units	Percent
1980 to 1989	9010	45.34%
1970 to 1979	7202	36.24%
1960 to 1969	1509	7.59%
1950 to 1959	1490	7.50%
1940 to 1949	231	1.16%
Before 1940	431	2.17%
Total	19873	100.00%
Median: 1979	Source: 1990 Census	

5.1.5 Employment Trends

Berkeley Township is predominantly a residential community which has been historically agrarian and has developed as a retirement and resort (second home) community that emphasizes a service based highway commercial spine down U.S. Route 9. The following table, taken from the 1990 Census, illustrates the employment by industry within the Township.

EMPLOYMENT BY INDUSTRY - BERKELEY TOWNSHIP, NEW JERSEY

	Construct.	Agricul.	Manufac.	Wholesale Retail Trade	Business/ Profess. Services	Profess.	Communic /Utilities	Transp.	TOTAL Persons Employed
# Persons Employed	1,112	100	909	2,184	831	4,264	339	523	10,262
% TOTAL	10.84%	0.97%	8.86%	21.28%	8.10%	41.55%	3.30%	5.10%	100.00%

The professional sector, when combined with business and professional services, comprises about half of the Township's employment. Factoring in the trade sectors covers over 70% of employed persons. These figures explain the stores, restaurants, amusements, marinas, medical offices, nursing homes, hospitals and shopping centers that have been filling the available land along highways and arteries in Ocean County to capture a share of the significant concentration of retirement aged population and seasonal tourists in communities with access to the Ocean and Barnegat Bay.

In terms of employment levels for the Township's population, 1990 Census figures again indicate a much smaller civilian labor force in proportion to the total population than is typical for New Jersey municipalities. The table below is illustrative of this point.

EMPLOYMENT AND UNEMPLOYMENT; BERKELEY TOWNSHIP, NEW JERSEY

	Employed	% Empl. Male/ Female	Un employed	% Unemp. Male/ Female	Total Civilian Labor Force	% Total Persons Un employed	Not In labor force	% Male/ Female	% Total Persons over 16 not in labor force	TOTAL Persons over 16 Male/ Female	% To Perso
Male	5,005	52.41%	423	56.03%	5,428	4.11%	9,405	40.71%	28.16%	14,833	44.4
Female	4,544	47.59%	332	43.97%	4,876	3.22%	13,695	59.29%	41.00%	18,571	55.6
TOTAL	9,549	100.00%	755	100.00%	10,304	7.33%	23,100	100.00%	69.15%	33,404	100.0

Source: 1990 Census, STF 3-Tables

As was intimated above, the chart shows that close to 70% of the Township's population over the age of 16 (working age) is not in the civilian labor force. This observation can be further explored by noting that the split by gender of those who are not working and not seeking unemployment benefits is 60% female and 40% male. These figures approximate the split of the total population of working age (56% to 44%). The table also shows a slightly higher unemployment level among males as compared to females and an overall unemployment rate (7.3%) that is significantly higher than the County 1990 rate of 5.6%.

5.1.6 Probable Future Employment

The table shown below is a projection of employment for Ocean County broken down by sex, race and age and can be used as a model for estimating future employment in Berkeley Township.

Civilian Labor Force Projections Ocean County, New Jersey						BERKELEY TOWNSHIP
		April 1, 1990	Change:1990- 2005			Applied to Berkeley Twp. 1990 Figures
			July 1, 2005	Number	Average Annual Growth Rate	Projected Increase in Labor Force to Year 2000
Total Labor Force		192,800	235,500	42,700	1.3%	1340
by Sex						
Male		104,800	123,600	18,800	1.1%	530
Female		88,000	111,900	23,900	1.6%	774
by Race						
White		185,200	222,700	37,500	1.2%	1228
Black		5,400	7,900	2,500	2.5%	25
Other Races		2,200	4,900	2,700	5.4%	47
by Age						
16-19		9,700	13,000	3,300	1.9%	
20-24		17,900	20,900	3,000	1.0%	
25-34		50,600	46,100	(4,500)	-0.6%	
35-44		48,300	66,300	18,000	2.1%	
45-54		31,100	68,900	37,800	5.4%	
55-64		23,200	38,300	15,100	3.3%	
65+		12,000	6,600	(5,400)	-3.8%	

Prepared by: New Jersey Department of Labor, Division of Labor Market & Demographic Research, 10/95.

Based on the simple application of the County wide projected annual growth rate in the civilian labor force to Berkeley Township, as shown in the table above, the projected growth in persons either employed or unemployed and seeking employment in the year 2000 would be 11,665, an increase of 1,361 persons. Allowing for an average unemployment rate of 6%, the number of employed persons would be 10,965 persons, an increase of 1,416 employed persons.

Applying the travel time to work figures taken from the Ocean County Data Book and derived from the 1990 Census and assuming that persons traveling less than 15 minutes to work are employed within the Township, about 24% (2,297) of the 9,549 employed persons in 1990 could be assumed to be employed within the Township. Using the same percentage and applying it to the projected increase of 1,416 employed persons, about 340 new jobs would have to be created by the year 2000. Using the same breakdown by industry, this would mean 136 new jobs (40%) in the professional category and 71 new jobs (21%) in the wholesale and retail trades categories.

5.2 Current Development Trends

There has not been a significant change in the housing picture since the 1990 Census, with residential building permits based primarily on previously approved developments under the Permit Extension Act. This gradual buildout under backlogged approvals has shown signs of changing in recent months, with inactive projects beginning to take steps to finalize approvals and pursue permits in anticipation of the expiration of the Permit Extension Act at the close of 1996. The table of residential building permits shown below indicates a cyclical trend in the number of residential units authorized by permits. It is clear, however, that Berkeley Township's permit activity has been among the busiest in Ocean County over a sustained period of time. Other active municipalities such as Dover Township, Brick Township, Manchester Township and Lakewood Township share Berkeley Township's popularity for planned retirement communities.

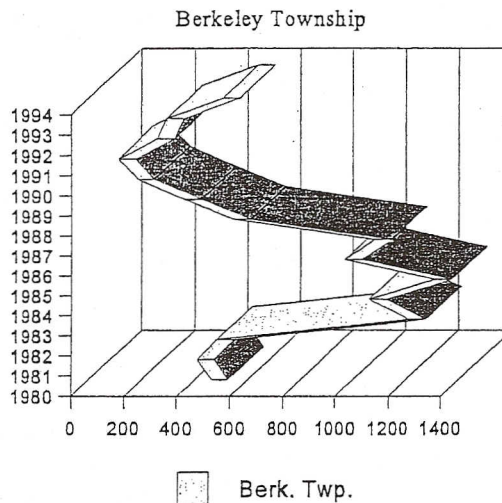
RESIDENTIAL DWELLING UNITS BY PERMIT

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Berk. Twp.	495	441	515	1244	1090	1342	1000	1113	578	392	217	143	293	326	5
Ocean Cnty.	2950	2589	2646	4897	5314	6795	8469	7300	5022	2821	1804	1562	2287	3906	29
% Cnty.	16.78%	17.03%	19.46%	25.40%	20.51%	19.75%	11.81%	15.25%	11.51%	13.90%	12.03%	9.15%	12.81%	8.35%	18.3

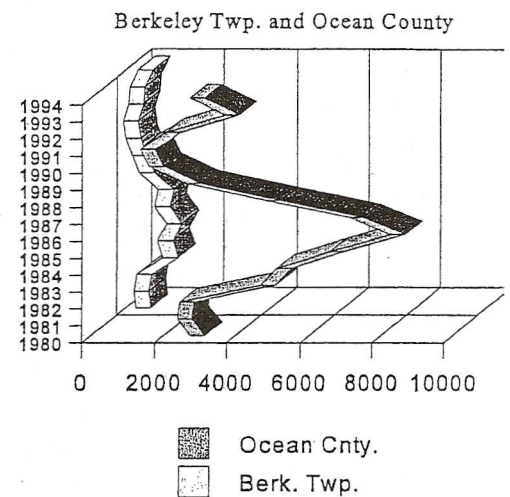
The Charts to the right illustrate the residential building trends over the past fifteen years. It is noteworthy as to how they mirror the economic trends during the same period, indicating a high level of sensitivity to the market. For example, coming out of a recession in 1982, the permit levels more than doubled in 1983. Then, after fluctuating at high levels during the building boom in the mid 1980's, residential construction activity slid sharply to a 15 year low of 143 permits in 1991, at the bottom of the last recession. Between 1991 and 1994, the activity has recovered to about half (46.3%) of the average activity (1158 units per year) during the five peak years.

In comparing construction activity trends of the Township versus the County before and after the last recession, the charts show that the County also exhibited very high market sensitivity. The County also had less fluctuation during the peak years and hit bottom a year before the Township. The County rebounded in 1992 and 1993 in a parallel fashion to its rebound from the 1980 recession, but lost momentum in 1994 while the Township sustained a slower recovery.

Residential Units By Permit



Residential Units By Permit



Over the 15 year period, the averaged permit activity was 648.4 residential permits per year. Because the building boom of the 1980s has been viewed as very difficult to repeat, it is not likely that the Township will experience the same average permit activity over the next 15 years. Therefore, a projection of the housing stock should also apply the household size parameters to the population projections in the earlier section of this report to obtain a comparison.

5.3 Capacity of Infrastructure and Community Facilities

5.3.1 Sanitary Sewer Facilities

Sanitary sewer service is provided within Berkeley Township by the Sewerage Authority. Geographic areas in which such service is offered include the Route 9 corridor, Sylvan Lakes, Riverbank, Toms River Shores, Mill Creek, Scott Estates, Berkeley Shores, Good Luck Point, Riviera Beach, Sloop Creek, Holly Park, Brennan Concourse, Glen Cove, Bel Aire Park, and Cedar Beach. The South Seaside Park section of the Township is also served.

All of the Planned Residential Retirement Communities in the northwestern portion of the Township are connected to central sewers.

The Authority has plans to extend service into the JFK Boulevard and Stanton Avenue areas, Scott Drive and isolated unsewered portions of Route Nine.

At present, the Authority has a four-step plan in which they are attempting to bring sanitary sewer service to existing developed lots which are currently served by septic systems. The Authority is currently going through the process of identifying and locating streets and/or individual lots which are developed, but served by septic systems rather than the Township sanitary sewer system. The majority of lots are concentrated in the Pinewald Section of Berkeley Township. This will be an ongoing process for the Authority, as lots are continually being approved that are served by septic systems.

While the Authority is expanding in the sense that they are providing sanitary sewer facilities to more residences, there are no major plans to provide sanitary sewer facilities to areas not currently being served.

Long range planning for the Authority includes the possible future expansion of sanitary sewer service to the Pinewald section of Berkeley Township. Although a feasibility study has been completed, there are no plans to initiate the design of this expansion, and it is not anticipated that construction will be undertaken prior to 2001. When initiated, this endeavor will be taken in a number of construction phases and should take several years at minimum to complete the first phase.

5.3.2 Wastewater Treatment

Collected flows are routed to the Central Wastewater Treatment Plant Facility, located between Hickory Lane and Northern Boulevard, and operated by the Ocean County Utilities Authority (OCUA). The 1989 Master Plan indicated that this treatment facility had a capacity of 24.0 mgd and was considered to be at capacity. A conversation with Bill Fine of the OCUA confirmed that the capacity of the plant was expanded to accommodate 28.0 mgd. As of July 31, 1996, the three month average capacity was 22.5 mgd. Mr. Fine indicated the OCUA anticipates it will be able to accommodate demand for a ten (10) year period. The OCUA will address plans for future expansion should a demand arise.

Additionally, the OCUA recently built a new sewerage treatment line which runs parallel to the existing sewerage treatment line.

5.3.3 Water Supply Facilities

There are six franchised entities to purvey water in Berkeley Township. The Shore Water Company was issued the franchise for South Seaside Park in 1952 and provides service to all barrier island areas within Berkeley Township outside of Island Beach State Park.

In 1959 the Berkeley Water Company was given a franchise to serve the area on the southwest side of Route 9 from Beachwood to the railroad right-of-way and Hickory Lane. In 1961, the franchise area was extended to the northeast side of Route 9 from Pine Beach to Ocean Gate Drive. The Berkeley Water Company also serves Bel Aire Park, and lines in Route 9 extend south to Harbor Inn Road. The Berkeley Water company encompasses what used to be the Berkeley Shore Estates Water Company. A telephone conversation with Maureen Bier of the Berkeley Water Company confirmed that currently there are no plans for expansion.

The United Water Company of Toms River is franchised to serve the northwest portion of the Township from the JCP&L (prior railroad) right-of-way to the Township boundary. All development within this area outside of Manitou Park is presently connected to this system. The low-income Township owned apartments in the Manitou Park section are, however, connected to this system.

The Seaside Park Water & Sewer Company services only the Pelican Island section of Berkeley Township.

The Crestwood Water Company has a franchise which enters the Township along Route 530 from the west. This franchise area includes the Municipal Industrial Park and an area north of Route 530 which, at least 10 years ago, (from the date of the 1989 Master Plan) had been granted a variance to permit construction of a mobile home park. There is no actual service within this franchise area. Thomas O'Gara, manager of the Crestwood Water Company confirmed they had no concrete plans for expansion. He maintained that the water company has had some contact with developers in that area, however, nothing has been finalized. Furthermore, the water company does not have a sewer franchise and would have to make arrangements with Berkeley Township for sewer connection. This franchise area is further restricted by the fact that it is in the Pinelands.

Based on telephone conversations with the multiple private water companies in Berkeley Township, it is clear that none of the companies are planning a major expansion at this time. Should the market dictate a surge in residential development, thus spawning a need for water service in the relative franchise areas, the water companies have indicated a willingness to negotiate with developers.

In 1988 Berkeley Township created a Municipal Utilities Authority. Franchise rights were granted to the Authority for all areas not being served by private water companies. The MUA has a two phase plan to provide water service to the above mentioned franchised area. For further clarification on franchise areas, see the following Map titled "Berkeley Township Water Franchise Areas."

Phase I of the MUA's plan includes roughly the area in the MUA's franchise to the east of Wheaton Avenue, specifically, Butler Boulevard, Glen Cove, Sand Piper Beach, Holly Park, and Berkeley Villages North and South. Phase II will consist generally of the extensions of the Phase I system. The remainder of the franchise area, which extends west towards the Garden State Parkway, predominantly the Pinewald section of Berkeley Township, will be

incorporated in Phase II of the MUA's plan. Land to the west of the Garden State Parkway has not been incorporated into the MUA's plan as the majority of the land to the west of the parkway is regulated by the Pinelands Commission, thus it is not reasonable to expect that large scale residential development will take place in this section of Berkeley Township.

In 1989, Kupper Associates prepared a Water Supply Master Plan for Berkeley Township. This plan determined saturation development in the MUA's service area to be approximately 7800 units. This estimate does not include any development in wetland areas shown on United States Geological Survey maps (USGS). *"Of the ultimate 7800 units projected for the Berkeley Township MUA, it is estimated that Phase I would service approximately 2800 existing and proposed units."* This information is based on the following developments:

<u>Development</u>	<u>Number of Units</u>
Butler Boulevard	200
Glen Cove	675
Berkeley Villages North	184
Berkeley Villages South	150
Holly Park	598
Sand Piper Beach	238
<u>Other Areas</u>	<u>755</u>
TOTAL	2800

The 1989 Kupper Associates Plan projects 5000 units for Phase II of the Plan, however, does not specify as to how this projection was determined. We are assuming this number was the result of analyzing available vacant land constrained by zoning parameters.

Based on the above information it is reasonable to assume that development in Berkeley Township will be guided by market forces rather than large scale utility expansions into areas of the Township not presently being served. With the exception of the two phase expansion plan targeted at connecting existing homes to the Township water system, there are no public or private initiatives planned to expand utility services into areas of the Township not currently being served.

Berkeley Township has recently obtained a \$1.2 million loan and a \$500,000 grant from the U.S. Department of Agriculture that will be used to provide residents of the Pinewald Section with clean drinking water. The money will enable water lines to be extended to one hundred (100) homes where private wells are threatened with contamination. The loan and grant are part of the Water 2000 Project which was developed to ensure that every rural American home will have clean, safe drinking water by the year 2000.

5.3.4 Parks and Recreation Facilities

Berkeley Township has made good progress in expanding its recreational facilities to meet the needs of a growing population. Township recreational facilities meet or exceed general standards in many areas, especially in active recreation categories. The Township, in conjunction with the Berkeley Township Soccer Association is in the process of developing approximately seven (7) new soccer fields in Bayville. Certain types of passive recreation are still needed, especially in view of the marked expansion of the retirement age population and the regional nature of the demand on County and State parks within the Township. The availability of municipally controlled property with frontage on the Barnegat Bay and other surface water features offers the opportunity to develop nature trails, bike paths, boating facilities, arboretums, outdoor performance venues and other passive recreation improvements to meet the present and future need of Township residents. The Township is currently in the process of utilizing grant money from Green Acres to develop a passive recreation park site on Allen Road.

1990 POPULATION COMPARISON BY AGE GROUP Berkeley Township & Ocean County

	Township	% Total	County	% Total	+/- Variance
TOTAL	37,319	100%	433,203	100%	0
0-5 yrs.	1,186	3.18%	28,816	6.65%	-3.47%
6-17 yrs.	3,150	8.44%	69,349	16.01%	-7.57%
18-64 yrs.	13,993	37.50%	234,630	54.16%	-16.67%
65 and over	18,990	50.89%	100,408	23.18%	+27.71%

The table on the following page illustrates the existing Township facilities as compared to conventional needs formulas taken from several sources. Based on these conventional standards as compared to available facilities data, the Township has a present need for playgrounds and basketball courts on the active side, and picnic, bike paths, boating and arboretum facilities on the passive side. However, given the median age of the Township of 65.3 years and the expectation of continued immigration of retirement aged households into the Township evidenced by the 6.5% estimated growth in population between 1990 and 1995, the passive needs merit priority in future recreation planning.

BERKELEY TOWNSHIP RECREATION NEEDS ANALYSIS

	Recommended	Provided	% Recommended
ACTIVE			
Play fields	112 acres	167 acres	133%
Playgrounds	19 acres	4 @ 0.25 ac. Est.	1.3%
Court Sports	7.5 acres	1.2 acres, Estim.	16%
Tennis 1/2000 to 10,000 pop.	4 to 18	10	60% to 250%
Basketball 1 goal/1,000 pop	18 courts	6	33%
Volleyball 1/4,000 pop.	9	1 Estimated	12%
Handball 1/10,000 pop.	4	2 (Estimated)	50%
Baseball +1/6,000 pop.	7	6	86%
Football 1=1/15,000 pop.	3	2	67%
Soccer 1+1/15,000 pop.	3	10	333%
Outdoor Pool 1/25,000	1.5	0	0%
Golf 1 18 hole course per 50,000 pop.	1	1	100%
PASSIVE			
Hiking/Camping/Horse back/Nature 10 ac./1,000 pop.	373 acres	462 acres	119%
Picnic 4 ac./1,000 pop.	148 acres	79 acres	54%
Bike paths 1 trail mile/2,000 pop.	18.5 miles or 15.7 acres	0 (Estimated)	0%
Boating 10 ac./50,000 pop.	7.5 acres	0 (Estimated)	0%
Arboretums 1 ac./1,000 pop.	37.3 acres	0 (Estimated)	0%

As can be seen in the preceding tables, the population of persons over the age of 65, whether projected using current percentage breakdown or regional annual growth rates is expected to remain at around half the total population as it expands to the year 2000 and the population under 18 is expected to remain stable, further underscoring the need for additional passive recreation facilities.

5.4 Buildout Analysis

A relative measure of the recent development within the Township can be assessed from a review of the changes in the number of parcels of various land uses and vacant parcels between the 1980-1990 time period as well as the 1990-1996 time period. Factoring in the annual change attributed to commercial and industrial subdivisions at about 3 parcels per year over the 10 year period from 1980-1990, the remaining 157 vacant parcels that were consumed each year on an average between 1980 and 1990 can be attributed to residential subdivisions.

ASSESSMENT OF DEVELOPMENT ACTIVITY BY CHANGE IN PARCELS 1980 to 1990

	1980	% Total	1990	% Total	% Change	Annual +/- in Parcels
Vacant	8217	44.09%	6610	26.07%	-19.56%	-160.7
Residential	10159	54.51%	18458	72.80%	81.69%	829.9
Farm Regular	6	0.03%	3	0.01%	-50.00%	-0.3
Farm Qualified	4	0.02%	5	0.02%	25.00%	0.1
Commercial	218	1.17%	243	0.96%	11.47%	2.5
Industrial	21	0.11%	23	0.09%	9.52%	0.2
Apartment	13	0.07%	12	0.05%	-7.69%	-0.1
TOTAL	18638	100.00%	25354	100.00%	50.43%	671.6

ASSESSMENT OF DEVELOPMENT ACTIVITY BY CHANGE IN PARCELS
1990 to 1996

	1990	1996	% Total	% Change 1990- 1996	Annual +/- in Parcels
Vacant	6610	5,293	20.19%	-19.92%	-219.5
Residential	18458	20,683	78.88%	12.05%	370.83
Farm Regular	3	4	0.02%	33.33%	0.17
Farm Qualified	5	6	0.02%	20.00%	0.17
Commercial	243	204	0.78%	-16.05%	-6.50
Industrial	23	24	0.09%	4.35%	0.17
Apartment	12	8	0.03%	-33.33%	-0.67
TOTAL	25354	26,222	100.00%	3.42%	144.67

A review of the above tables showing development activity by change in parcels indicates that between 1980 and 1990 there was an 81.96 percent increase in residential parcels. The 1990 to 1996 period showed only a 12.05 percent increase in residential parcels. This can be attributed to the economic recession and stagnation of the residential market in the late 1980's and early 1990's. In addition to a much slower paced residential market, there was a 16.05 percent decrease in commercial parcels during the 1990-1996 period. Compared to the 1980-1990 time span, when commercial parcels increased nearly 12 percent, the 1990-1996 time period indicates a lag in commercial development as well.

The only land use category to show an increase in parcels for the 1990-1996 period was farmland which increased 33.33 percent, this however, is somewhat misleading. While there was a substantial increase in the percentage of farmland, the actual increase in farmland increased only from 3 to 4 parcels. This same category declined by 50 percent during the 1980-1990 time period. Qualified farmland also increased by 1 parcel during the 1990-1996 time period as it did during the 1980-1990 time period.

The actual percentage of vacant parcels decreased by nearly the same amount between 1980-1990 and 1990-1996. The absolute decrease in vacant parcels was 1,607 in the 1980-1990 time period, and a loss of 1,317 vacant parcels was recorded for 1990-1996.

RESIDENTIAL BUILDOUT

An indication of future residential development potential is the amount of available vacant land in the Township as well as current land development projects. Berkeley Township

maintains 14,810 acres of vacant land, which translates to 55.2 percent of the Township. While this number may seem significant, there are a number of environmental constraints which impact the future development of this vacant land. In order to determine an estimate of the potential number of units to be developed in the Township, we conducted an investigation of available vacant land constrained by zoning parameters. We confined our study area to vacant land east of the Garden State Parkway, as the majority of land west of the Parkway is either regulated by the Pinelands Commission or devoted to Planned Residential Retirement Communities.

The investigation included examining tax records as well as tax maps to determine the location and acreage of all vacant lots. The zoning of the vacant lots was then analyzed in order to identify conforming lots. For the purpose of this investigation, conforming lots were determined to be lots which satisfy the minimum lot size respective of the current zoning of the property. Based on this information, we determined the potential yield of units based on the size of the property and the minimum lot size required in the Schedule of Zoning Requirements. This investigation produced an estimate of 6,615 total lots to be developed in the various neighborhoods east of the parkway. This estimate, however, did not consider environmental constraints. As such, we have used a more conservative number estimating buildable lots in the Pinewald Area based on the "Pinewald Area Sanitary Sewer System Concept Plan Report."

Realizing that the census tracts 7280 and 7312 are for all intents and purposes fully developed or constrained from new development by environmentally sensitive lands, the remaining tracts, 7310 and 7311, were analyzed. In 7310, three new developments have been planned. Two of these projects are family units while the other is a senior citizen community. By using the persons per household figure, the number of additional persons for this census tract was calculated to be 1,227 individuals. For census tract 7311, twelve new developments have been planned or approved. These developments will generate 4,963 additional persons.

Census tract 7311 encompasses a portion of the Pinewald Section of the Township, where future development is planned and anticipated. The Berkeley Township Master Plan anticipates that future development will occur in the Pinewald area as new infill housing and larger scale residential subdivisions. The above referenced Pinewald Area Sanitary Sewer System Concept Plan Report envisions a total of 2,027 buildable lots, with most if not all being family households. The buildout of this area will add 6,182 additional persons to Berkeley's population.

Based on our knowledge of the Township and the different peculiarities of each of the four census tracts, we project a total 2010 population for Berkeley of 54,166 inhabitants.

This projection is predicated upon the following:

- ▶ our estimated 1996 population;
- ▶ approved and planned (filed) residential subdivisions;
- ▶ the potential for both infill and new larger scale residential growth in the Pinewald Section of the municipality, dependent upon construction of the planned comprehensive sanitary sewer system;
- ▶ minimal to negligible new population growth in census tract 7312 (northwest quadrant) and 7280 (barrier island).

Essentially, our projection of 54,166 persons was arrived at by coupling the anticipated residential populations to be generated from approved/planned subdivisions along with the number of buildable lots in the Pinewald Section of the community multiplied by the persons per household figures (2,027 buildable lots x 3.05 p/H.H.)

We find that the population in census tract 7280, commonly known as the South Seaside Park section of Berkeley Township will remain stable or exhibit a minimal to negligible increase based on the incidence of conversions from seasonal rentals to year round homes occupied by the indigenous population of Berkeley Township.

COMMERCIAL BUILDOUT

As was addressed earlier in this Element, about 575 of the over 26,000 acres of land in Berkeley Township is currently used for commercial purposes and 942 acres is devoted to industrial purposes. In order to assess the potential for future commercial development, the Tax Assessor's records of vacant parcels were compared to the Highway Business zoning category along Route 9, as well as the area around the lands currently zoned General Industry. Approximately 370 acres of noncontiguous vacant land maintains frontage along Route 9 and about 180 acres of vacant land is located within the current GI (General Industrial zone). It should be noted that land that is used for extraction will not be listed as "vacant" even though there may be minimal, if any, structures on the site. Therefore, it can be assumed that the General Industrial Zone would have the potential of yielding much more than the development of just the vacant parcels through redevelopment of extraction lands.

For the purposes of this analysis, however, we have assumed that only vacant lands will generate commercial and industrial development until such time as the road circulation improvements are provided between the GI Zone and the Parkway.

For each acre of commercially zoned property along Route 9, 50%, or 21,700 square feet, can be covered with building area, according to the highway commercial standards in the Berkeley Land Development Ordinance (LDO). We will assume that predominant uses of

new commercial floor space will be for single use retail, shopping centers, professional offices and medical offices, with a blended parking requirement, based on current LDO standards, of 1 parking space per 200 square feet of floor area, and that most buildings will be one story in height. Based on these assumptions, each acre of vacant land developed to the one-story maximum of 21,700 square feet of floor area would require 109 parking spaces. A 9'x18' parking space with half of a 9'x24' aisle equals 270 square feet of land for each parking space in a double loaded aisle. 109 parking spaces would therefore require 29,430 square feet of land area, which combined with the maximum building area, would exceed the acre of available land. Scaling down to a 15,000 square foot building with 75 parking spaces would leave about 20% of the acre for landscaped yards around the building and is a reasonable standard to use for a buildout estimate for highway uses. The 370 acres of aggregated vacant land along Route 9 could therefore potentially generate as much as 5,550,000 square feet of retail and office space and 27,750 parking spaces when built out to capacity.

For the 180 acres of vacant land quantified for the General Industrial Zone, we will assume a rezoning to a Planned Commercial Zone that will have parameters comparable to the existing Regional Business (RB), which requires a ten acre minimum lot size and 20% maximum building coverage. Based on these parameters, each acre would yield 8,712 square feet of one story building space. Assuming the shopping center parking requirement of 1 space per 150 square feet, each acre would generate a requirement for 58 parking spaces. The 180 acres would therefore generate a potential for 1,568,160 square feet of building space and 10,440 parking spaces. Again, this buildout would not include redevelopment of lands currently used by extraction businesses.

A summary of the residential and commercial buildout potential under this Land Use Plan is tabulated below:

BUILDOUT ANALYSIS SUMMARY

	Single Family Dwelling Units	Highway Commercial Building Space	Parking @ 200 square feet of building space per parking space	Planned Comm. Floor Space	Parking @ 150 square feet of building space per parking space	Total
Resid. Units	2,027					2,027 units
Com. Floor Space		5,550,000		1,568,160		7,118,160 s.f.
Parking			27,750		10,440	38,190 spaces

5.5 Fiscal Impact Analysis Under Total Buildout

Based on the projections of residential and commercial buildout under current zoning parameters, we can now project the potential fiscal impact and factor the analysis into our recommendations for changes in the Land Use Plan.

5.5.1 Residential Fiscal Impact

Using the estimate of 2,027 dwelling units from the buildout analysis, the following assumptions were made regarding costs and revenues to Berkeley Township:

1. 1990 Census data for family households with children under 18 years of age (2,088) was divided into the total persons in public elementary and secondary school (2,882 students) to obtain a multiplier of 1.38 students per family household.
2. Ratios of family households to total households and family households with children under 18 years of age to total families were taken from the 1990 Census and used to estimate the number of school aged children per family household generated by 6,615 dwelling units (70.17% of 2,027 units = 1,422 family households; 16.8% of 1,422 family households = 239 new families with school age children; 239 families x 1.38 students per family household = 330 new students
3. Using the Ocean County Data Book, August 1996, the 1995 elementary school enrollment of 1,773 students was 70% of the total elementary school enrollment of sending districts to Central Regional High School. Applying the same enrollment percentage to the total 1995 enrollment at Central (1830 students) yielded 1,281 students attributed to Berkeley Township. The total of 3,054 students was divided into the 1995 total school tax levy of \$21,397,056 to yield a 1995 cost of \$7,008 per pupil. 330 new pupils would therefore generate an education cost of (330 x 7,008) \$2,312,640.
4. Dividing the 1995 population estimate taken from the 1996 Ocean County Data Book (39,762) into the 1995 municipal purposes budget of \$17,652,687 yields a per capita cost of \$444 for the provision of municipal services. Using the 1990 figure of 2.9 persons per household and multiplying by 2,027 dwelling units yields an additional population of 4,236 persons. At \$444 per person, the municipal purposes costs of the estimated residential buildout would be \$1,880,784 per year. **Total Residential Cost = \$4,193,424.**
5. Residential revenue was estimated using the 1995 median value of \$103,100 per dwelling unit and multiplying by 2,027 dwelling units to yield a total value of \$208,781,000. Dividing by 100 and multiplying by the 1995 mil rate of \$1.922 per \$100 of valuation yields an estimated tax revenue of **\$4,012,771.**

6. The residential buildout would therefore result in a net **deficit** to the Township of **\$180,653**.

5.5.2 Commercial Fiscal Impact

To estimate the fiscal costs and revenues derived from a projected total buildout of 7,118,160 square feet of commercial space, the following assumptions were made:

1. Total existing assessed value for commercial and industrial line items was taken from the 1996 assessment report filed by the Township with the Ocean County Board of Taxation and was divided by the 575 acres of developed commercial and industrial property in the Township to yield an existing value per acre of \$180,033. This figure was multiplied by the 370 acres of vacant land aggregated in the buildout analysis along Route 9 to yield an estimated developed value of \$66,612,421. Dividing the projected buildout of 5,550,000 square feet into the estimated developed value yields a value of \$12 per square foot. This figure will therefore be used as an estimated rent level for gross income projection purposes.
2. The 1,568,160 square feet of regional commercial space estimated for the proposed Planned Commercial Zone should be expected to generate a higher value per square foot than strip commercial space. A value of \$15 per square foot will therefore be used to generate gross income for this commercial space.
3. Based on regional gross income multipliers taken from the Fiscal Impact Handbook,⁷ the estimated value of the aggregated commercial buildout would be \$528,273,000. Applying the same 1995 tax rate as was used for the residential calculations yields annual tax revenue of **\$101,534,000**.
4. The Employment Anticipation Model⁸ uses an estimate of total employees generated by projected commercial development to factor added costs for municipal services attributed to such development. Aggregating the multipliers for the service categories, multiplying them by an employee estimate of 14,236 (7,118,160 gsf divided by 500 square feet per employee) yields an added cost factor of 1.949. Multiplying the added cost percentage times the 1995 \$444 per capita cost increases it to \$863 per capita. Multiplying \$863 times the 1995 population of 39,762 yields a projected cost of **\$34,314,606** per year attributable to the commercial buildout.
5. Comparing the projected costs and revenues of the potential commercial buildout under the proposed Land Use Plan yields a net benefit to the Township of **\$67,219,394**.

⁷ Robert W. Burchell and David Listokin, The Fiscal Impact Handbook, CUPR, 1980, page 325.

⁸ IBID., page 140.

Taking the deficit generated by the residential buildout and the net benefit generated by the commercial buildout yields an overall positive fiscal analysis of **\$66,649,796.** to Berkeley Township. The proposed Land Use Plan can therefore be projected to be fiscally sound, even if the selected rent per square foot levels of \$12 for strip commercial and \$15 for regional commercial turn out to be somewhat high.

6.0 VISUAL ANALYSIS & COMMUNITY DESIGN ELEMENTS

One of the least measured, most intangible qualities of a "livable" community is the visual experience its landscapes present to residents, visitors, businesses and their customers. These landscapes are comprised of numerous elements, each of which either contributes to a pleasing visual experience or leaves a negative impression that extends to the other elements.

6.1 Elements of Visual Resource Analysis

The elements of a community's landscapes can be generally described as follows:

- a. **The Street** (road, shoulder, gutter, curb, tree lawn/street trees, sidewalk, bus shelter, light and utility poles, overhead wires, fire hydrants, signage, mailboxes, parking spaces, traffic signals, fences, driveway cuts).
- b. **The Yard** (turf and landscape plants, walls and fences, walkways and driveways, shade trees, light fixtures, living and nonliving groundcovers, yard furniture and appurtenances, signage, parking lots, trash storage areas, overhead wires).
- c. **The Building Face** (height, number of stories, garages, rooflines, porches and porticos, railings, window treatments, dormers, skylights, awning and canopies, columns, ornamentation, projections, chimneys, antennae, roof mounted ventilation and other equipment, signage, flags and banners, entry treatments, light fixtures, loading docks).
- d. **The Background** (wooded, waterfront, open turf/landscaped, pasture/farm field/orchard, meadow, buildings/structures).

The way we perceive these elements is a sequential spatial experience involving time, motion, and sightline. We absorb a more detailed image moving at a slower rate and a "snap shot" impression when moving faster through a space. Sightline is a function of the relative position of the point of vision to the view plane, the limitations of the eye's vertical cone of vision and obstructions within the view plane.

The measurement and evaluation of the visual landscape is commonly referred to as Visual Resource Management (VRM), which has its roots in the management of national parks and

forests, as well as water resources planning.⁹ This concept has also been introduced in early versions of the State Development and Redevelopment Plan, for such visual resources as ridge lines in areas with rolling hills. Some municipalities have gone so far as to incorporate ridgeline protection provisions in their land development regulations to restrict forest clearing for development to areas below ridgelines. Many agencies that require Environmental Impact Statements (EIS) include an assessment of the visual impact of a project.

The State of New York's State Environmental Quality Review Act (SEQRA) provides a flexible process which serves as a unique model for interpreting a community VRM effort for Berkeley Township as follows:

- **Stage 1 - Inventory of Visual Resources**

List State, County and municipal parks, waterfront vistas, open spaces, farmland, village centers, marinas, historic sites and other resources of local importance with high visual qualities;

- **Stage 2 - Establish Practical Criteria For Evaluation**

Identify entry points to the Township and evaluate the visual quality listing the positive (attractively landscaped front yards, well maintained building faces, organized and coordinated signage, absence of vertical obstructions such as overhead wires, etc.) and negative (overhead wires, confused and/or excessive signage, haphazard vehicle parking and cluttered front yards, poorly maintained building faces, outdoor storage of materials, vehicles and debris, etc.) characteristics of each point of entry. Develop point ranking system using the positive and negative characteristics to rate the visual quality of each "gateway";

Develop and apply similar evaluation and rating techniques to the residential, nonresidential and public spaces within the Township;

- **Stage 3 - Develop Mitigation and Preservation Strategies**

Mitigation strategies could include the installation of curbs and sidewalks to control parking and access to front yards; adoption and/or enforcement of property maintenance ordinance; requirements for underground utilities for new development and targeting of priority areas for grant funds to remove overhead wiring and upgrade streetscapes; enactment and enforcement of comprehensive signage controls; enforcement of shade tree planting requirements and incorporation of a "tree bank" fund which allows the Planning Board to approve developer contributions for street tree plantings by the Shade Tree Commission.

⁹ Richard C. Smardon, Foundations For Visual Project Analysis, John Wiley & Sons, 1986, page 142.

Preservation strategies could include an open space acquisition program based on targeted properties within waterfront view corridors; use of New Jersey Historic Trust grant/loan funds to rehabilitate public and privately owned historic sites; and development of zoning setbacks for waterfront properties to preserve views of the water, as well as specialized signage/graphics and design standards for points of entry to the Township and to celebrate identified areas or sections of the Township (e.g., Pelican Island, Pinewald, Bayville, South Seaside Park, Holiday City/Silver Ridge Park, etc.).

6.2 Visual Analysis of Berkeley Township

In order to evaluate the current visual resources of the Township and evaluate the need for mitigation and preservation measures, an extensive photographic survey was performed. The neighborhoods in all of the developed sections of Berkeley Township were evaluated. A staff analysis of the survey results has led us to identify several sections of the Township that have common visual characteristics as follows: Bayville, Holiday City/Silver Ridge, Pinewald, South Seaside Park, Manitou Park, Sonata Bay and Holly Park. In addition, several other areas are visually significant, such as: the water views of Good Luck Point, Pelican Island, River Bank, and Berkeley Island/Cedar Beach. The Bayview Convalescent Center is the most significant piece of architecture in the Township and commands the view as the focal terminus of Central Boulevard.

An evaluative ranking system has been developed for these sections of the Township based on the VRM system outlined earlier. The results are tabulated on page 30.

Based on the VRM process outlined above, the aggregate scores for each of the neighborhoods varies from a low of a -8 to a high of a +7. The overall score for the developed portions of the Township works out to be a -6. The visually weak elements in this overall assessment are in the prevalence of overhead wires and vertical obstructions; the lack of curb, sidewalk and street tree definition of the street scape; the frequency of unsightly storage of vehicles in front yards and the lack of landscaping or maintenance of front yards; poor signage controls; and the lack of architectural character. The stronger elements are in good overall maintenance of the homes in most neighborhoods and the Township's waterfronts and wooded background landscapes.

One of the observations drawn from the visual assessment is that the newer neighborhoods scored higher than the older sections due to modern standards for curbs, sidewalks, underground utilities and landscaping. However, the positive visual quality of older Township neighborhoods can be realized as well through property maintenance code enforcement (including controls on high grass and weeds, unregistered vehicles, building facades, etc.); signage controls in the commercial areas and in South Seaside Park; etc.

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	Bayville	Holiday City/ Silver Ridge	Manitou Park	Pinewald	Holly Park	Good Luck Point	Pelican Island	South Seaside Park	River Bank	Berkeley Island/ Cedar Beach	Sonata Bay	TOTAL
STREET												
Overhead Wires/ Vertical Obstructions	-1	+1	-1	-1	-1	-1	-1	-1	+1	-1	+1	-5
Signage	-1	0	0	0	0	0	-1	-1	+1	0	+1	-1
Street to Yard Transition (curb, sidewalk, street trees, etc.)	0	+1	-1	-1	0	0	+1	-1	0	-1	0	-2
YARD												
Landscaping	0	+1	-1	-1	0	0	+1	-1	0	-1	0	-2
Signage	-1	+1	0	0	0	0	-1	0	0	0	0	-1
Paving, storage	-1	+1	-1	-1	0	0	0	-1	+1	0	+1	-1
BUILDING FACE												
Signage	-1	+1	0	0	+1	0	-1	-1	0	0	0	0
Materials	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance	0	+1	0	0	+1	0	+1	0	+1	0	0	+4
Architectural Design	-1	0	-1	-1	0	0	0	-1	+1	-1	0	-4
BACKGROUN D												
Landscaping	0	0	-1	0	+1	0	0	-1	+1	-1	0	-1
Wooded, waterfront, urf/landscaped, pasture/farm, meadow, building/structure	+1	0	0	+1	+1	+1	+1	-1	+1	+1	+1	+7
AGGREGATE SCORE	-5	+7	-6	-4	+3	0	0	-8	+7	-4	+4	-6

7.0 LAND USE PLAN

Sections 1.0 through 6.0 provide an assessment of the characteristics of Berkeley Township, its growth and development trends, housing stock, employment, visual character and future growth capacity. The following Section offers a vision for the future of the Township and recommendations for achieving the vision through specific actions.

7.1 Land Use Goals and Objectives

The following Land Use Goals are proposed for purposes of this Land Use Element:

- A. Cohesive neighborhoods free from visual clutter in front yards and streetscapes.
- B. Elimination of onsite well and septic systems through extension of Township utilities to all existing residential neighborhoods.
- C. New residential development that meets or exceeds applicable design standards and where sewer and water infrastructure is either available or is provided by the developer.
- D. Rehabilitated housing stock within the older planned retirement communities, Manitou Park and older subdivisions.
- E. Affordable housing for families and seniors, created pursuant to the Mount Laurel Fair Share Housing Plan.
- F. Attractive office and retail development along the Route 166/Route 9 corridor to replace obsolete and unsightly small-lot highway strip commercial uses, such as auto repair garages, bars and nightclubs, used car sales, stand-alone fast food restaurants, etc. All new retail and office development should meet uniform signage criteria that controls visual clutter along the corridor through reasonable restrictions on the number and size of identification signage and the prohibition of new advertising (billboard) signage.
- G. A new employment center to be accessed through the construction of a new arterial road by Ocean County linking Route 9 to a new exit ramp built by the State on the Garden State Parkway. The employment center will be developed on large consolidated tracts in the area currently zoned General Industrial located south of Route 9 and east of the Borough of Beachwood. Uses will integrate retail, office and distribution within planned commercial developments and will include provisions for integrated health services such as a planned hospital, clinic and life-care facilities.

Land Use Objectives for realizing the goals listed above are set forth as follows:

GOAL (A) Cohesive Neighborhoods:

OBJECTIVES:

1. Develop property maintenance program inclusive of ordinance regulations to deal with outdoor storage, parking in the front yard, outdoor storage of disabled or unregistered vehicles, recreational vehicles and boats over a specified size.
2. Develop a policy on the installation of curb and sidewalk improvements to separate front yards from the street, facilitate pedestrian movement and establish a more organized streetscape.

GOAL (B) Eliminate Onsite Water and Septic Systems.

OBJECTIVES:

3. Continue program of systematic extension of Township water and sewer lines to existing occupied residences in established neighborhoods.

GOAL (C) New residential development that meets or exceeds applicable design standards and where sewer and water infrastructure is either available or is provided by the developer.

OBJECTIVES:

4. Continue to apply modern site improvement standards in new residential development.
5. Pursue inclusion of water and sewer lines by developers of major subdivisions as part of development review and approval.

GOAL (D) Rehabilitated housing stock within the older planned retirement communities, Manitou Park and older subdivisions.

OBJECTIVES:

6. Support and encourage continued involvement by Township residents in the Ocean County Housing Rehabilitation Program.
7. Utilize the Berkeley Township Affordable Housing Trust Fund as stable source of funding for continued rehabilitation of existing affordable housing if and when the County's program funding runs out.

GOAL (E) Affordable housing for families and seniors, created pursuant to the Mount Laurel Fair Share Housing Plan.

OBJECTIVES:

8. Complete the process of obtaining certification of the Township Fair Share Housing Plan Addendum and implementation of the Lifetime Homes and Foxmoor settlement agreements to construct new twin homes in Manitou Park (Lifetime) and 15 new affordable homes in Foxmoor.
9. Expand housing opportunities for seniors through inclusion of a provision for planned life care communities on large tracts as a permitted use option in the area currently zoned General Industry, but only after the arterial link between Route 9 and the Garden State Parkway is created.

GOAL (F) Attractive office and retail development along the Route 166/Route 9 corridor to replace obsolete and unsightly small-lot highway strip commercial uses, such as auto repair garages, bars and nightclubs, used car sales, stand-alone fast food restaurants, etc. All new retail and office development should meet uniform signage criteria that controls visual clutter along the corridor through reasonable restrictions on the number and size of identification signage and the prohibition of new advertising (billboard) signage.

OBJECTIVES:

10. Amend Land Development Ordinance to provide for large tract minimum lot size requirements and large site uses where possible along the Route 166/9 corridor. Provide for limited small site stand alone uses as Conditional Uses in the Business Highway Zone.
11. Amend Land Development Ordinance to provide for more comprehensive aesthetic and maintenance controls for commercial signage.
12. Institute property maintenance code requirements for maintenance of existing commercial properties, including control of high grass and weeds, maintenance of building exteriors, fences, paved areas, etc.

GOAL (G) A new employment center to be accessed through the construction of a new arterial road by Ocean County linking Route 9 to a new exit ramp built by the State on the Garden State Parkway. The employment center will be developed on large consolidated tracts in the area currently zoned General Industrial located south of Route 9 and east of the Borough

of Beachwood. Uses will integrate retail, office and distribution within planned commercial developments and will include provisions for integrated health services such as a planned hospital, clinic and life-care facilities.

OBJECTIVES:

13. Pursue policy of persistent advocacy of construction of new exit ramp on the Garden State Parkway and a County arterial road to connect the new ramp to Route 9 through the lands now zoned for General Industry.
14. Replace current General Industry zoning provisions with a "PC - Planned Commercial" zone that includes performance standards for the development of retail, office and distribution uses, or integrated health service uses, within planned campus centers analogous to Carnegie Center on Route One in Princeton.

7.2 Residential Land Uses

The plan for residential land use is based on the buildout of existing neighborhoods, located east of the Garden State Parkway, where utilities can be extended to existing homes and expanded by builders of new developments in those neighborhoods on a project by project basis. It is expected that the vast majority of these residential developments will be a continuation of the single family housing type, but with a variety of densities, linked to the minimum lot size. For the purposes of this Plan, low density single family housing types refer to minimum lot sizes of 20,000 square feet and up, based on the current R-200 and R-400 zoning district regulations. Medium density single family residential refers to minimum lot sizes of between 10,000 square feet and 15,000 square feet, and are linked to the R-100, R-125, and R-150 zoning district regulations. High density single family residential refers to minimum lot sizes less than 10,000 square feet and are linked to the R-50 and R-64 zoning district regulations.

The approach to the distribution of the low through high density single family residential zones is based on a combination of recognizing prevailing lot sizes in built up neighborhoods and matching the lot sizes to the density parameters, as well as reserving areas with large vacant tracts for low density or clustered low density residential development. Lands along the Barnegat Bay and Toms River that were previously zoned for residential development, but which are constrained by environmental factors, such as wetlands, are shown on the Land Use Plan as "conservation lands."

Lands located west of the Garden State Parkway and south of the GPU-Energy right of way fall under the jurisdiction of the Pinelands Commission. For purposes of consistency, the Land Use Plan generally mirrors the Pinelands Forest and Pinelands Preservation lands on the Pinelands Map, except that most of the Preservation lands in Berkeley are already part of either Double Trouble State Park or the Township municipal lands, and lands between the

State Park and Pinewald-Keswick Road are severely constrained by wetlands and stream corridors. As a result, nonpublic lands south of the Pinewald-Keswick Road from Double Trouble Road to the County Airpark property are designated Pinelands Preservation on the proposed Land Use Plan Map, and lands north of Pinewald-Keswick and west of the Airpark are designated Pinelands Forest on the Land Use Plan Map. Exceptions to these designations occur on the Airpark property, which is designated for "airport commercial" uses, the existing industrial park adjacent to and across Pinewald-Keswick Road from the airport, and the lands to the northwest of Dover Road (Route 530) and southeast and northeast of the Holiday Heights Retirement Community, which is designated for Rural Residential, consistent with the Rural Growth designation in the Pinelands Plan.

The planned retirement communities located principally to the north of the GPU-Energy right of way are the greatest concentration of housing in the Township and will remain as a separate land use in the proposed Land Use Plan. The one inconsistency with this overall pattern is in the southern section of Holiday Heights/Holiday City retirement community, which is within the Pinelands Rural Growth Area. The Land Use Plan Map includes this neighborhood within the Planned Retirement Community land use category.

7.3 Commercial Land Uses

The proposed Land Use Plan Map anticipates an expansion and consolidation of highway commercial uses along Route 9, on minimum lots that will allow for a variety of retail trade stores and services to be developed for the community. It is anticipated that the smallest uses will be buildings of 10,000 square feet on 40,000 square foot lots, allowing for at least 10% of the lot for landscaping and 67 parking spaces (@ 150 square feet of building area per parking space). The largest uses could be shopping centers or office buildings of several hundred thousand square feet of commercial floor area on sites of 10 to 15 acres or more. Uses of a size between these two extremes could include lawn, garden and produce centers and new car dealerships. Uses that are not retail trade, retail service, professional or general office suitable for buildings of 10,000 square feet and larger would become nonconforming along the Route 9 corridor Highway Business Zone. Such nonconforming uses would include auto repair garages, unless part of an auto parts retailer or as an accessory activity to retail sales activity; stand-alone fast food restaurants, ice cream stands, convenience stores, donut stores, bars, etc. These uses would be permitted within consolidated centers, for which "village" style design criteria should be developed to avoid a "strip center" appearance.

The principal objective of the proposed commercial land use plan is to guide a gradual transition away from the haphazard pattern of roadside strip commercial uses that lack adequate parking and landscaping treatment and disrupt traffic flow with the conflicting turning movements caused by multiple driveways. These uses served the needs of travelers and summer tourists on Route 9 when it was the only highway running through north and south through eastern New Jersey to states to the south. Route 9, like the other older State highways, now serves as an arterial for regional traffic and a commercial spine linked in various places with exits along the Garden State Parkway. The new uses that emerge along the Route 9 corridor will therefore be targeted to the regional market and demands of a

growing year-round population. As the corridor becomes developed and redeveloped with these new uses, the Township should be prepared with updated signage requirements in the Land Development Ordinance so that a unifying visual design template can be established along Route 9.

7.4 Industrial Land Uses

Industrial uses in Berkeley Township have generally been limited to sand and gravel extraction, marinas and boatyards, lumber and contractors' yards, commercial fishing and the like. Such industrial uses that consume large land areas are likely to become replaced by more substantial commercial development as improved access and circulation makes such land attractive for redevelopment and too economically valuable to sustain marginal commercial uses. As a result, the large area currently zoned General Industrial, and which currently supports mostly extraction activity, is recommended for a change to Planned Commercial uses as described above. As was already discussed, the economic viability of developing industrial parks, as well as commercial centers and health facilities in this old industrial zone, depends on improvements to the accessibility through the interior of the block. The key to opening up the area for more substantial commercial development lies in the realization of an additional interchange at the Garden State Parkway and a new county connector road to Route 9. While the 1988 Ocean County Master Plan does not show such a County connector, it refers to a study being undertaken by the New Jersey Highway Authority which is considering a number of potential interchanges.

7.5 Public Land Uses

Public land uses, for the purposes of the Land Use Plan, include those lands under the ownership of the Federal government, State of New Jersey, County of Ocean and the Township of Berkeley. There are considerable portions of the Township in these categories, including Double Trouble State Park, Island Beach State Park, Central Regional High School, Cedar Creek Golf Course, Veterans and Mallard Parks.

The Land Use Plan Map includes certain lands along the Barnegat Bay as "Conservation Lands." These lands are undeveloped marsh lands and tidal wetlands along the Barnegat shoreline which are recommended for acquisition by the Township as part of a linear waterfront "green/blue links" program of passive parks and waterfront overlooks, nature trails, etc. The Township's Environmental Commission is currently in the process of preparing a concept plan for the use of one such parcel with the use of a grant from NJDEP.

7.6 Amendments to Land Development Ordinance

In order to realize the recommendations outlined above, a number of amendments to the Land Development Ordinance and Berkeley Township Zoning Map will be required as follows:

- The Land Development Ordinance will need to be amended to include provisions for a Pinelands Preservation (PP) Zone, Pinelands Forest (PF) Zone and a Rural Residential

(RR) Zone. These provisions would be taken from the Pinelands Commission regulations and would enable the Township to reapply to the Commission for certification of the Master Plan and LDO. Once certified, the Township will be empowered to conduct development reviews in these areas. The Zoning Map would also be amended to delineate the PP and PF Zones in accordance with the Land Use Plan Map.

- The lands along the Barnegat Bay and Toms River that are zoned for residential development but which are constrained from development by environmental factors, such as wetlands, should be zoned for conservation or preservation as indicated on the Land Use Plan.
- The General Industrial (GI) Zone provisions would be replaced with a Planned Commercial (PC) Zone, and the Zoning Map changed accordingly. The Planned Commercial Zone provisions would include amendments addressing permitted, conditional and accessory uses; minimum tract requirements, height and bulk requirements; parking, etc.
- The single family residential zone boundaries for the R-50 through R-400 zones should be adjusted on the Zoning Map to be consistent with the Low Density Single Family Residential, Medium Density Single Family Residential, and High Density Single Family Residential categories shown on the Land Use Plan Map.
- The Miller Air Park property would be designated as Airport Industrial (AI) and provisions for permitted, conditional and accessory uses, as well as height, bulk and air hazard provisions included within the Land Development Ordinance.
- The industrial park adjacent to the Airport would be designated for Industrial Park (IP) and provisions added to the Land Development Ordinance governing industrial park development.

8.0 CIRCULATION PLAN

Circulation is the movement of people and goods from one point to another. Efficient circulation is a vital element in the economic growth of the Township. The transportation system is inextricably tied to the land use plan which dictates the type and intensity of uses throughout Berkeley Township. This Circulation Plan examines the existing network of vehicular, transit, and pedestrian routes in the Township.

8.1 Functional Classification of Streets

Existing and proposed streets are classified according to their traffic carrying function and are identified on the Circulation Map. Four street classifications are listed on the map; principal arterials, minor arterials, collectors and proposed expansions.

Principal Arterials - These roads provide for major local and inter-municipal movements. They will be expected to handle substantial volumes of local and through traffic. Principal arterial roadways will generally handle most of the inter-regional and regional traffic that traverses Berkeley. In order to preserve their carrying capacity, the number of intersections, driveways, and frontage activity should be minimized along these streets.

Minor Arterials - Minor arterials also provide for inter-municipal movements but at lower capacity levels than principal arterial streets. Although these streets may handle significant traffic volumes, adjoining land use is often residential in character.

Collectors - Collectors provide access and circulation between various points within the community for moderate volumes of traffic. They provide access to fronting properties and also collect traffic from developments and carry it to principal and minor arterials. The traffic on these streets should be limited to vehicles collected from intersecting local streets and the traffic generated on the street itself.

Proposed Expansions - These improvements are either proposed State, County or local expansions.

The remainder of streets in the Township can be classified as local streets whose primary function is to serve and provide access to the land activities that front upon them and serve no network function in terms of long distance or intra-regional linkages. Many of the residential streets in the Township have not been paved. Many of these unimproved streets serve existing and newly constructed housing units. This Master Plan recommends paving of existing roads serving residential units.

Roadway Inventory

Principal Arterials:

- Garden State Parkway
- State Highway No. 9
- State Highway No. 37
- Ocean County Route 530 (Pinewald Keswick/Dover Road)

Minor Arterials:

- Ocean County Route 618
- Davenport Road
- Mule Road
- Central Parkway
- Forest Hills Parkway
- Veterans Boulevard
- Butler Boulevard
- Bayview Avenue
- Western Boulevard

Collectors:

Northern Boulevard
Serpentine Drive
Serpentine Drive East
Bay Boulevard
Bayview Boulevard
Sloop Creek Road
Veeder Lane
Ocean Gate Drive
Mill Creek Road
Freeport Boulevard
Pulaski Boulevard
Westbrook Drive
Edgebrook Drive East
Whitmore Drive
Northumberland Drive
Jamaica Boulevard
Fort De France Ave
Edgebrook Drive North
Barbados Drive

Proposed Expansions/Improvements:

The proposed expansion to be taken on by the County/DOT from Western Boulevard to Gladney Ave would provide an alternate access to the Garden State Parkway and to communities south of Berkeley Township in addition to Route No. 9. The intent of this expansion would be to lessen traffic congestion on Route No. 9.

In addition to the above referenced expansion, Highway No. 9 is slated for improvements by the State DOT. These improvements encompass the dualization of Rt. 9. The effect of dualizing Rt. 9 will be a decrease in the amount of turning movements in and out of the various commercial establishments spanning the highway. With turning movements minimized, it is anticipated that traffic flow will be improved and congestion will be lessened.

Currently, the Route No. 9/Garden State Parkway Corridor Study is being undertaken by the State DOT, Ocean County and affected municipalities within the County. The intent of this study is to identify and improve upon the traffic problems and issues facing the Garden State Parkway and Highway No. 9. Berkeley Township has been an active participant in this study.

A 1.94± mile Mule Road Extension is proposed as part of the Mule Road Settlement Agreement. The proposed extension will be an emergency access road linking Mule Road

to Crossley Road. This proposed expansion shall only be available for emergency vehicles and for evacuations of the local population. As part of the agreement, Berkeley Township will install barricades precluding all regular vehicular access, and any and all motorized vehicle access. It was further agreed that the road would not be paved or otherwise covered with impervious surfaces.

8.2 Mass Transit

Mass transit in Berkeley Township is limited to the County and State bus lines. While there is access to rail transit in neighboring municipalities, Berkeley Township is not host to a stop on NJ Transit rail lines. Furthermore paratransit opportunities such as van/car pools should be explored as to their accessibility to Berkeley Township residents.

8.3 Bikeways/Pedestrian Paths

As depicted in the parks and recreation facilities element of this plan, there are a number of sites for active and passive recreation throughout the Township. Furthermore, the Township has been the recipient of Green Acres grant money to further develop the recreation sites available to the Township. Given the many recreation sites and community facilities in the Township, it would make good planning sense for the Township to incorporate a pedestrian or bikepath linking multiple sites. While the Township is expansive (41.90 square miles), several bike and/or pedestrian paths could be developed depending on the geographical location of the sites they serve to connect. The inter-modal Surface Transportation Efficiency Act (ISTEA) requires federal and state transportation agencies to examine alternatives to building new highways. ISTEA provides greater emphasis and funding for transit and non-traditional transportation modes such as walking and bicycling.

8.4 Summary of Recommendations

In the interest of sustaining and improving the circulation system that serves Berkeley Township the following recommendations are made:

- Balance land uses with the capacity of the circulation system to ensure that proposed land uses will not overload the circulation system.
- Develop strategies to reduce congestion along State Highway No. 9.
- Encourage the paving and improvement of unimproved roads in the Township serving existing and newly constructed residential units.
- Provide better information on available transit service.
- Provide a pedestrian and bicycle path network for maximum recreational and circulation use between neighborhoods, recreational areas, schools and shopping areas.

- Protect the visual and aesthetic value of both new and older residential developments within the Township by promoting the preservation of existing trees and the planting of new trees along existing and proposed roadways.

9.0 CONSISTENCY WITH OTHER MASTER PLANS

Pursuant to section 40:55D-28 (d) of the Municipal Land Use Law, the Master Plan shall include a specific policy statement indicating the relationship of the proposed development of the municipality as developed in the master plan to (1) the master plan of contiguous municipalities, (2) the master plan of the County in which the municipality is located (3) the State Development and Redevelopment Plan adopted pursuant to the "State Planning Act" and (4) the district solid waste management plan required pursuant to the provisions of the "Solid Waste Management Act," of the County in which the municipality is located.

This section is intended to provide a consistency review of the Berkeley Township Master Plan with the Master Plans of the above mentioned entities.

9.1 Master Plans of Adjacent Municipalities

Dover Township

The northwesterly corner of Berkeley Township, which partially abuts the Toms River Industrial Park, is zoned and developed as a planned residential retirement community. The remainder of the adjoining areas in Berkeley Township which abut the existing residential areas of Dover Township are also planned and zoned for residential development. The Dover Township Master Plan also provides for the preservation of the open space along the Toms River.

There are several Industrial Zones in Dover Township which abut the Holiday City retirement community in Berkeley Township. While the Dover Township Zoning Ordinance does require extensive screening along the Township boundary, the screening requirements do not separate Holiday City in Berkeley Township from the tracks of the Central Railroad of New Jersey, which run along the border between the two Townships. The remaining areas in Berkeley Township which abut the Dover Township boundary are separated from Dover Township by the expansive tidal portions of the Toms River.

Borough of Island Heights

The land areas of the Borough of Island Heights are separated from Berkeley Township by the tidal areas of the Toms River. Use variations between Berkeley Township and these areas across the tidal waters of the Toms River are not considered to be significant.

Manchester Township

The Manchester Master Plan designates an area south of the Conrail railroad for Office Research/Light Industrial OR-LI. This zoning district abuts an existing retirement

community, Holiday City, in Berkeley Township. While there is a required buffer as well as a wetland area separating the two incompatible uses, every effort should be made to adequately screen the retirement community from potentially obtrusive development in the OR-LI Zone in Manchester Township. Large areas of land abutting the Berkeley and Manchester Township borders remain undeveloped due to environmental sensitivity. The Pine Ridge Park retirement communities in Manchester Township abut a conservation area in Berkeley Township.

Lacey Township

The area of Berkeley Township south of the Central Regional High School Campus is a Township Recreation area, zoned R-400 which Berkeley Township considers to be low density. This area borders a portion of Lacey Township which is zoned R-100, which is considered medium density by Berkeley Township zoning standards. The Cedar Creek section of Berkeley Township is zoned for high density residential and abuts a C-100 Marine Commercial Zone in Lacey Township. Adequate buffering should be encouraged to allow the residential zone in Berkeley Township to exist adjacent to the marine commercial zone in Lacey Township.

Borough of South Toms River

The Borough of South Toms River borders the Manitou Park section of Berkeley Township. Manitou Park is in the R-100 Zone, which corresponds to a medium density residential zone in Berkeley Township.

Borough of Beachwood

The Borough of Beachwood abuts a general industrial zone in Berkeley Township. The Land Use Element of the updated Master Plan, however, suggests the economic upgrading of this general industrial zone to a planned commercial zone which would provide for a land use plan that is more closely aligned to the type of development occurring in Beachwood Borough. The economic upgrading of this general industrial zone in Berkeley Township is dependent upon a proposed arterial link between Route 9 and the Garden State Parkway.

Borough of Pine Beach

The planning and zoning policies of the Borough of Pine Beach are consistent with those of Berkeley Township. Specifically, Pine Beach strives to protect environmentally sensitive areas along the Toms River and encourages development that preserves "neighborhood patterns."

Borough of Ocean Gate

Use variations along the Berkeley Township and Ocean Gate borders are not considered to be significant. The section of Berkeley Township that abuts Ocean Gate is zoned for low density residential. The abutting land in Ocean Gate is shown on the Ocean Gate Land Use

Plan prepared by Ernst, Ernst & Lissenden as primarily residential (0-9 dwelling units to the acre) with a small area of publicly owned land.

Borough of Seaside Heights

The existing development in Seaside Heights, bordering Berkeley Township, generally consists of high density residential uses and commercial uses compatible with the development in the Seaside Park section of Berkeley Township.

9.2 Master Plan of Ocean County/Ocean County Solid Waste Management Plan

In an effort to produce a revised Master Plan that is consistent with the growth and development plan of the County, Berkeley Township incorporated input from the County Transit Study, the Ocean County Data Book, the Ocean County 1988 Master Plan and other County studies when producing this revised Master Plan.

Additionally, the Land Use Plan which will be a guide for future growth and development in Berkeley Township is largely consistent with the General Development Plan of the 1988 Ocean County Master Plan, with only some minor variations. Primarily, the County General Development Plan underestimates the amount of commercial development occurring along the Route Nine Corridor.

Berkeley Township is a host municipality for one of the County's three regional wastewater treatment plants. The Township is in the process of expanding its sewage system by providing service to homeowners who are currently served by septic systems. The Township expansion plans are consistent with the general recommendations of the County Wastewater Plan in that the Township is not extending service to areas of "low or no growth" but rather to areas where development is occurring at moderate densities.

This revised Berkeley Township Master Plan is intended to be in compliance with the three major components of the Ocean County District Solid Waste Management Plan; the landfill management plan, the comprehensive recycling program and the resource recovery element.

9.3 The State Development and Redevelopment Plan

The New Jersey State Development and Redevelopment Plan suggests a balance between development and conservation areas throughout the State in order to meet the needs of approximately 9 to 9.5 million New Jerseyans in the year 2010. The plan is intended to serve as a guide for all State agencies with respect to capital investment and programming. The State Development Plan designates the various areas of the State as Planning Areas based on the most appropriate use of the land.

Several different planning areas are designated in Berkeley Township, as the Township is diverse and unique in the amount of land suitable for development.

A large portion of the Township west of the Parkway is designated as Planning Area 10, which denotes Pinelands/Hackensack Meadowlands Management Areas.

Furthermore, many areas along the shoreline, as well as some sensitive inland areas have been designated as Planning Area 5, which is an Environmentally Sensitive Area. Objectives in the Environmentally Sensitive Planning Area include supporting recreational, natural and cultural resource-based activities in environs and locating economic development opportunities responsive to the needs of the surrounding region in centers.

While the area along the shoreline has been classified as Environmentally Sensitive, there are a number of residential developments as well as some commercial establishments (restaurants and marinas) built on the shore line which suggests a more intensive pattern of development than that in an Environmentally Sensitive Area. Currently, the developed shoreline in Berkeley Township represents a unique balance between environmental preservation and economic development. We recommend this area be designated as Planning Area 2, as the development in this area of Berkeley Township is consistent with the type and pattern of development in a Suburban Planning Area. The State Planning Commission is currently undertaking the second round of cross-acceptance of the State Development and Redevelopment Plan. It would therefore be prudent to forward a copy of this Master Plan, once adopted, to the Office of State Planning with a request to amend the State Plan as recommended herein.

The majority of the inland portion of the Township east of the Parkway has been designated as Planning Area 2, which is a Suburban Planning Area. Objectives in the Suburban Planning Area include guiding economic development into centers and encouraging development that is consistent with existing or planned infrastructure. The type of development found along the shoreline is consistent with the development inland and supports the rationale for designating the built area along the shoreline as Planning Area 2.

This proposed Land Use Plan for Berkeley Township encourages development that is consistent with the goals and objectives of the State Plan. The Land Use Plan designates the majority of land west of the Parkway not devoted to retirement communities as environmentally sensitive areas to be consistent with the Pineland Forest Areas and Pineland Preservation Areas. Furthermore, the areas designated by the State Plan as Suburbanizing Areas are designated for moderate density residential or planned residential retirement communities. In sum, the Land Use Plan for Berkeley Township mimics the designations of the State Plan, with the exception of the planning area designation for the shoreline. We feel that by amending the State Plan to reflect the true pattern of development in the Township, we will develop a sound planning tool that will be useful in guiding future growth and development in Berkeley Township.

BERKELEY TOWNSHIP PINELANDS AREA

COMPREHENSIVE MASTER PLAN AMENDMENT

Prepared for The Berkeley Township Planning Board
adopted July ____, 2001

Prepared by:
Daniel C. McSweeney, PP
Ryan W. Rapp, PIT

SCHOOR DEPALMA, INC.
Manalapan, New Jersey

The original of this report was signed and sealed in accordance with NJSA 45-14-12

Daniel C. McSweeney, PP #LI 01883

Ryan W. Rapp, PIT #Cert. 280

I. Introduction

The Berkeley Township Planning Board is desirous of amending its December 4, 1997 adopted Comprehensive Master Plan to address the Pinelands Area of the Township. The purpose of this master plan amendment is to bring the Township Master Plan into compliance with the New Jersey Pinelands Comprehensive Management Plan (CMP). The Pinelands, a unique million-acre forest, is situated within one of the most densely populated regions in the Country.

Three (3) distinct jurisdiction areas have been established within the Pinelands:

- The Pinelands Preservation Area
- The Pinelands Protection Area
- The Pinelands National Reserve

Berkeley's Pinelands Area can generally be described as being bounded by the Garden State Parkway to the east, the GPU Company right-of-way to the north and the Township's boundary with Manchester and Lacey Townships to the west and south, respectively. Except for certain municipal facilities (e.g. municipal complex, law enforcement center, public works building, etc.) and county facilities (Ocean County Air Park), a small Township owned industrial park and the Holiday Heights senior community, the bulk of Berkeley's Pinelands Area is undeveloped, vacant land.

The Preservation Area, considered to be the "heart" of the Pinelands, is characterized by forest areas and an integrated system of rivers, streams and wetlands, all of which harmoniously act to sustain a very sensitive ecosystem. The portion of the Cedar Creek Drainage Basin, west of the Garden State Parkway, is designated as the Preservation Area and the remaining land is designated as the Protection Area. The State Pinelands Protection Area categories to be designated within Berkeley Township are:

- Forest Area
 - FAR-5
 - FAR-30
 - FAR-30C
 - FA-HC
 - FA-LI
 - FA-C
 - M/CF (Municipal/County Facilities)
- Agricultural Production – AP
- Rural Development Area – RDA & RDR
- Regional Growth Residential – RGR & RGR-A

Overlapping the Pinelands Area is the Pinelands National Reserve consisting of 19,500 acres lying east and west of the Parkway, south of Route No. 37 to the barrier island.

The total land area of Berkeley Township encompasses 41.90 square miles or 26,816 acres. In excess of 10,000 acres or approximately 38 percent of Berkeley's land area is situated within the jurisdiction of the Pinelands Commission. The Township intends to designate land use in accordance with the Pinelands CMP and Commission staff recommendations in an attempt to control growth and development. Generally, residential uses at varying densities are encouraged, as are environmental preservation, conservation and agricultural production.

As cited in the 1997 Master Plan, the Berkeley Pinelands Area Master Plan was conditionally approved by the Pinelands Commission on November 5, 1982 as set forth in New Jersey Pinelands Commission Resolution No. 82-86. Subsequently, the Township adopted Ordinance No 84-34-OAB to bring its Master Plan and Land Development Ordinance into compliance with the Pinelands Comprehensive Management Plan. The Pinelands Commission, on October 4, 1985, adopted Resolution No. 85-59 granting complete, unconditional certification for the Land Use Ordinances and Master Plan of the Township. Shortly thereafter, the National Pinelands Alliance challenged the favorable vote of the full Commission on Berkeley's certification. The Appellate Division ruled in favor of the National Pinelands Alliance and voided the Commission's certification action. The Commission then issued a conditional certification order to which the Township did not respond; the Township Master Plan and Land Development Ordinance have remained uncertified since that time. As a result, it is the Comprehensive Management Plan, rather than the municipal land use ordinance, which has governed development in the Pinelands Area since 1987.

II. Goals and Policy Objectives

The goal of this Master Plan Amendment is to revise the Township's Master Plan and subsequently its Land Development Ordinance to bring these documents into compliance with the Pinelands CMP. Section 7.0 of the 1997 Master Plan entitled "Land Use Plan", identified all Pinelands Area land uses and recommended revisions to the LDO to include standards and criteria for Berkeley's Pinelands Area. The adopted Plan notes, "Lands located west of the Garden State Parkway ... fall under the jurisdiction of the Pinelands Commission. For the purposes of consistency, the Land Use Plan generally mirrors the Pinelands Forest and Pinelands Preservation lands on the Pinelands Map ... The LDO will need to be amended to include provisions for a Pinelands Preservation Zone, Pinelands Forest Zone and Rural Residential Zone. These provisions would be taken from the Pinelands regulations and would enable the Township to reapply for certification of the Master Plan and LDO. Once certified,

the Township will be empowered to conduct development reviews in these areas. The zoning map would also be amended to delineate the PP and PF Zones in accordance with the Land Use Plan Map.” Based on the aforementioned the Goals and Policy Objectives of this master plan amendment are essentially those of the CMP and shall be as follows:

- **PRESERVE, PROTECT, AND ENHANCE THE OVERALL ECOLOGICAL VALUES OF THE PINELANDS, INCLUDING ITS LARGE FORESTED AREAS, ITS ESSENTIAL CHARACTER, AND ITS POTENTIAL TO RECOVER FROM DISTURBANCE.**

Policy 1: Preserve, protect, and enhance the quality and quantity of surface and groundwater.

Policy 2: Preserve, protect, and enhance the diversity of plant and animal communities and their habitats.

Policy 3: Preserve, protect, and enhance existing soil conditions.

Policy 4: Preserve, protect, and enhance existing topographic features.

Policy 5: Preserve, protect, and enhance existing air quality.

Policy 6: Protect natural scenic qualities.

- **MAINTAIN AND ENHANCE THE HISTORIC AND CULTURAL RESOURCES OF THE PINELANDS.**

Policy 1: Maintain opportunities for traditional lifestyles that are related to and compatible with the overall ecological values of the Pinelands.

Policy 2: Maintain the social and cultural integrity of traditional Pinelands communities.

Policy 3: Maintain and enhance historic and archeological areas and sites of national, state, and local importance.

- **PRESERVE AND ENHANCE AGRICULTURAL AND HORTICULTURAL USES THAT ARE COMPATIBLE WITH THE PRESERVATION AND PROTECTION OF THE OVERALL ECOLOGICAL VALUES OF THE PINELANDS.**

Policy 1: Reserve for agricultural purposes prime agricultural soils and soils of statewide significance in or adjacent to established agricultural areas.

Policy 2: Reserve unique agricultural soils and protect water quality and quantity necessary for cranberry and blueberry cultivation.

Policy 3: Protect the long-term economic viability of agricultural activities.

III. Future Land Use

To bring the Future Land Use Plan into compliance with the Pinelands CMP certain land use planning areas must be created. At present the December 1997 adopted Future Land Use Plan reflects existing development patterns.

Berkeley's Pinelands Area is predominantly designated as Environmentally Sensitive Lands and Parks and Public Open Lands. The Holiday Heights senior community and adjoining M. Major tract were appropriately delineated as Planned Residential Retirement Communities. The Township's existing and proposed industrial park fronting Route 530 was identified as Industrial. Ocean County Miller Air Park was noted as Airport Industrial. The former (closed) municipal landfill was categorized as Landfill. The two (2) small non-residential uses fronting Double Trouble Road, the auto-recycling yard and publishing company were placed in a Commercial planning area. Finally, the Township Municipal Complex, Law Enforcement Center, Public Works Garage and Yard and Pinewald Fire Company were designated Quasi-Public.

The Future Land Use Plan for Berkeley's Pinelands Area shall be revised to include the following planning areas or land use districts:

- Preservation Area – PA
- Forest Area Residential –5 – FAR 5
- Forest Area Residential – 30 – FAR 30
- Forest Area Residential Cluster – 30 – FAR 30C
- Forest Area Highway Commercial – FA-HC
- Forest Area Light Industrial – FA-LI
- Forest Area Conservation – FA-C
- Municipal/County Facilities –M/CF
- Agricultural Production – AP
- Rural Development Area – RDA
- Rural Development Recreation – RDR
- Regional Growth Residential – RGR
- Regional Growth Residential – Area A – RGR-A

The Preservation Area District represents that area found by the New Jersey Legislative to be especially vulnerable to the degradation of surface and ground waters. In the case of Berkeley Township, it is expected that this entire area will be preserved and there will be little of if any development of any kind. Berkeley's Preservation Area contains 1,819 acres.

Forest Areas in the Protection Area contain largely undisturbed forest and coastal wetland areas adjoining the Preservation Area. These areas possess the essential character of the existing Pinelands environment which should be preserved and maintained. Residential development will be permitted in the FAR-5, FAR-30 and the FAR-30C Districts. However, residential construction

will be limited to one (1) single family detached dwelling per 5.0 acres in the FAR-5 District and one (1) dwelling per 30.0 acres in the FAR-30 and FAR-30C Districts. In the FAR-5 and FAR-30C Districts, an option will be provided to allow the clustering of residential development on lots of at least one (1) acre in size. Collectively, the FAR-5, FAR-30 and FAR-30C Districts consists of approximately 2,100 acres and at maximum build out could potentially yield a total of only 125 dwelling units. This maximum build-out is in compliance with the Pinelands CMP's provision for allowing a gross density of one (1) dwelling unit for each 15.8-acres of privately-owned, undeveloped upland situated in Berkeley Township's Forest Area Districts (2,000 +/- acres).

The FA-HC and FA-LI Districts are being created in recognition of developed land uses in the Pinelands which have evolved to date. Residential development will not be permitted in either district. The FA-HC District encompasses the existing auto-recycling yard and publishing company on Double Trouble Road. This district has been established in recognition of these long established uses. A modest expansion of non-residential uses will be permitted within the limits of the FA-HC District. However, the expansion of the auto recycling business is specifically discouraged.

The FA-LI District essentially includes the limits of the previously developed and approved Berkeley Township Industrial Park.

Finally, the FA-C District consisting of in excess of 4,300 acres will not permit any residential or non-residential development aside from low intensity recreational uses. The FA-C District is currently comprised of lands held in some type of public ownership (i.e., Federal, State, County or non-profit conservation group). Lands in the FA-C District are intended to be held for conservation and preservation purposes.

The Municipal/County Facilities (M/CF) District is being created to accommodate existing municipal and county facilities within Berkeley's Pinelands Area. These two (2) districts generally follow the limits of the County Air Park and the Airport Safety and Hazard Overlay Zone and include municipal land areas and facilities encompassing the Municipal Complex, Law Enforcement Center, Department of Public Works, the BOE Bus Depot and the Pinewald Fire Company. Expansion of these existing county and municipal facilities will be permitted subject to certain restrictions and communication facilities will be permitted as accessory uses.

Agricultural Production Areas represent those areas, which are primarily devoted to field agricultural, berry agricultural, and/or native horticultural uses. One (1) Agricultural Production District is proposed for Berkeley. The district contains roughly 750 acres, the majority of which is comprised of cranberry bogs (Lipman tract) and is situated along Dover Road south and west of its intersection with

Davenport Road, adjoining the Borough of South Toms River. Other vacant lands, including an old blueberry field, are also being included in the AP Zone. Permitted uses in this planning area would include agriculture, forestry and low intensity recreational uses. Residential dwellings will be permitted as an accessory use to an active agricultural operation at a maximum density of one (1) dwelling unit per ten (10) acres. Non-farm residential development would be permitted but at a by right density of only one (1) unit per 40 acres.

Rural Development Areas represent those transitional growth areas from the less developed, predominantly forested areas of the Pinelands. These areas are somewhat fragmented by existing development and serve a dual purpose as buffers and reserves for future development. Two (2) rural development planning areas are proposed and both of these areas reflect existing land use conditions. The RDA District includes the entire Holiday Heights PRRC. This 380-acre tract was development pursuant to a waiver of strict compliance granted by the Pinelands Commission. A total of 1,411 dwelling units were constructed in exchange for deed restricted open space in the southerly portion of the tract. The southerly portion of the Holiday Heights tract will be situated in a FA-C District for conservation and preservation.

The 65-acre Rural Development Recreation District, the Township-owned Gibson tract, abuts Holiday Heights, Mule Road and the entrance drive to Saint Maximillian Kolbe Church. The RDR planning area is being established pursuant to a settlement agreement between the Township, CAFRA and the Pinelands Commission. This district will be used primarily for passive and some minor active recreation as outlined in the agreement. No residential development will be permitted. If desired, a police substation could be accommodated in this district.

Berkeley's Pinelands Area also contains a Pinelands Regional Growth Area of approximately 187 acres. It can generally be described as being bounded by the GPU Company right-of-way to the north; Holiday Heights and Davenport Road to the west; the Borough of South Toms Rivers to the east; and, the 50-foot contour elevation to the south following the ridgeline of the Jakes Branch. The 1997 Future Land Use Plan identified this tract for PRRC development and the property is currently zoned R-400 PRRC.

This 187-acre tract will be designated RGR and RGR-A. The southerly boundary line between the RGR-A and RGR Zone will follow the southerly lot line of Block 11 Lot 17, which bisects the tract in an east/west direction. Additional PRRC development will be encourage in the RGR-A District as this area adjoins Holiday Heights and other PRRC to the north. It would not be prudent to encourage family housing (non-age-restricted) in this portion of the municipality. We also recommend that only single-family detached housing be permitted in the RGR and RGR-A Districts consistent with the developed character of the area.

Further, there should be an increase in the minimum lot size, minimum lot width, side yard setbacks and a requirement of a minimum distance between building sidewalls of at least twenty (20) feet in any future PRRC. Minimum lot areas should be 6,000 S.F. for interior lots and 7,500 S.F. for all corner lots. Minimum lot widths should be sixty (60) feet and each side yard setback should be at least ten (10) feet to provide for at least twenty (20) feet between building side walls. The maximum lot coverage (building and impervious surfaces) should be fifty (50) percent.

The district changes described above are shown on the Future Land Use Plan attached hereto revised through June 25, 2001.